

Profile of academic monitoring in the teaching and learning process

Perfil da monitoria acadêmica no processo de ensino e aprendizagem

Perfil del seguimiento académico en el proceso de enseñanza y aprendizaje

RESUMO

Objetivo: analisar o programa de monitoria frente ao processo de ensino e aprendizagem de Estatística em Saúde. Método: transversal e descritivo, sobre a disciplina Estatística em Saúde, em uma instituição pública no Ceará, em dezembro de 2020. Utilizou-se questionário semiestruturado para avaliar as atividades de monitoria. A análise dos dados ocorreu no programa Excel, por meio de frequências absolutas e percentuais. Resultados: 34 discentes participaram, maioria do sexo feminino (61,8%). Aspectos positivos: 9 (26,5%) acadêmicos referiram a disponibilidade das monitoras para tirar dúvidas; 7 (20,6%) elencaram a didática utilizada; 6 (17,6%) citaram que os materiais de estudo foram de excelente qualidade; 4 (11,8%) relataram metodologia e revisão adequadas; 3 (8,8%) indicaram boa organização, objetividade, atenção aos monitorados, sincronia com o conteúdo ministrado pelo docente e bom direcionamento. Conclusão: o programa de monitoria acadêmica foi avaliado de forma positiva, por proporcionar a integração entre conhecimentos teóricos e práticos.

DESCRIPTORIOS: Educação Médica; Ensino; Desempenho Acadêmico..

ABSTRACT

Objective: to analyze the program for monitoring the teaching and learning process of Health Statistics. Method: transversal and descriptive, on the topic Health Statistics, in a public institution in Ceará, in December 2020. A semi-structured questionnaire was used to evaluate it tracking occupations. The data analysis was carried out in the Excel program, using absolute frequencies and percentages. Results: 34 students participated, la majority mujeres (61.8%). Positive aspects: 9 (26.5%) students mentioned the availability of monitors to resolve doubts; 7 (20.6%) enumerated the didactics used; 6 (17.6%) mentioned that the estudio materials were of excellent quality; 4 (11.8%) provided adequate methodology and revision; 3 (8.8%) indicated good organization, objectivity, attention to the monitoreados, synchrony with the contents imparted by the teacher and good direc- tion. Conclusion: the academic follow-up program was positively evaluated, as it facilitated the integration of theoretical and practical knowledge.

DESCRIPTORS: Education Medical; Teaching; Academic Performance

RESUMEN

Objetivo: analizar el programa de seguimiento del proceso de enseñanza y aprendizaje de Estadísticas de Salud. Método: transversal y descriptivo, sobre el tema Estadísticas de Salud, en una institución pública de Ceará, en diciembre de 2020. Se utilizó un cuestionario semiestruturado para evaluar su seguimiento ocupaciones El análisis de datos se realizó en el programa Excel, utilizando frecuencias absolutas y porcentajes. Resultados: Participaron 34 estudiantes, la mayoría mujeres (61,8%). Aspectos positivos: 9 (26,5%) estudiantes mencionaron la disponibilidad de monitores para resolver dudas; 7 (20,6%) enumeraron las didácticas utilizadas; 6 (17,6%) mencionaron que los materiales de estudio eran de excelente calidad; 4 (11,8%) aportaron metodología y revisión adecuada; 3 (8,8%) indicaron buena organización, objetividad, atención al monitoreado, sincronía con los contenidos impartidos por el docente y buena dirección. Conclusión: el programa de seguimiento académico fue evaluado positivamente, ya que facilitó la integración de conocimientos teóricos y práticos.

DESCRIPTORIOS: Educación Médica; Enseñanza; Rendimiento Académico.

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INTRODUCTION

The monitoring program, implemented in Higher Education Institutions (HEI), is subsidized by Law nº 9394/96, in which the guidelines that guide the teaching and learning process are established, being possible to include students as facilitators of dialogic discussions about the curricular contents. It is noteworthy that the monitors must be guided by professors in the planning and feasibility of activities.¹

Academic monitoring activities were carried out for the first time in 1968. From then on, national HEIs delegated monitoring functions to students of undergraduate courses.² According to article 25 of the Curriculum Guidelines for the Undergraduate Course in Medicine, the pedagogical project of the course must propose complementary activities, such as the monitoring program.³ At Universidade Pública Cearense, in 2019, the medical course consisted of 53 mandatory subjects, containing 43 monitoring options, with the aim of providing medium and long-term learning.

Academic monitoring proposes theoretical-methodological experiences in order to provide undergraduate students with assistance in training, through scientific criticism of the phenomena studied, and to favor the recognition of teaching talents.⁴ Added to this is the consolidation of autonomy, given that it is incumbent on the

monitors to contribute to the learning of other academics, by clarifying doubts, in addition to acting as co-responsible for encouraging dedication to studies.⁵

With regard to monitoring in undergraduate courses in the health area, this should permeate teaching integrated to research and university extension actions, constituting a potentiating tool in obtaining social skills, communicative and technical-scientific, with the aim of expanding and re-signifying the intellectual development of those involved.^{4,6}

It should be noted that the absence of academic monitoring can lead to lower student performance, as well as emotional instability, since it helps to overcome factors that limit the learning process.^{4,7} In this context, the importance of the student-monitor's experiences, as a mediator of knowledge, in the face of the experiences in monitoring classes, is noted, since the learning process is continuous and gradual, and can enable interest in teaching.⁸ Added to this are the benefits related to curriculum assessment in professional selections, as well as the strengthening of interpersonal bonds and the improvement of teaching.⁹

The indication of academic monitoring in the teaching and learning process is justified, since it encompasses competencies required in academic training, evidenced by Article 207 of the Federal Constitution of 1988, referring to the complementarity of teaching, research and extension. That said,

this study is based on the expectations of undergraduates regarding the performance of monitors, during the discipline of Health Statistics, with a view to understanding obstacles and potentialities in the educational process, through evaluative feedback about the effectiveness of the monitoring program, as a facilitator of knowledge.

Thus, the present study aims to analyze the monitoring program in relation to the teaching and learning process of Health Statistics.

METHOD

This is a cross-sectional and descriptive study on the discipline of Health Statistics, developed at a Public HEI, located in the state of Ceará, in December 2020.

The course Statistics in Health is part of the curriculum of the Undergraduate Course in Medicine at Universidade Pública Cearense, with a workload of 68 hours. The monitoring of the discipline encompasses specific content of statistical applicability in different health scenarios, such as public health, and provides skills for understanding quantitative phenomena, with a focus on descriptive and inferential statistics.

Due to the Covid-19 pandemic, social isolation has led to remodeling in university education, with a transition from the face-to-face to the virtual model.¹⁰ In this sense, the meetings took place through mobile instant messaging applications, on

a weekly basis.

To evaluate the monitoring activities, a semi-structured questionnaire was prepared, via Google Form, whose data were collected from December 10th to 19th, 2020 and organized in a synoptic table.

The study population consisted of 38 students regularly enrolled in the discipline of Health Statistics. The sample was obtained by convenience, based on the following eligibility criteria: having participated in all monitoring meetings and having time available to fill in the data collection instrument. Graduates who had limited access to social networks at the time of data collection were excluded. Thus, the sample consisted of 34 students.

The data collection instrument consisted of the following question: "What positive and negative aspects did you observe in the monitoring of the Health Statistics discipline?". In addition, questions on a Likert scale were added, in which the participants marked the options that best represented the levels of agreement (strongly disagree, partially disagree, neutral, partially agree and I totally agree) about the methodologies applied and the elaboration of support materials for individual study. Data analysis took place through a synthesis of the responses collected, using the Excel program, version 13.0, using absolute and percentage frequencies.

The study followed the recommendations of Resolution No. 510/2016 of the National Health Council, being approved by the Research Ethics Committee (CEP) of the State University of Ceará (UECE), under opinion No. 4,440,016. It is noteworthy that the collection only started after the approval of the Free and Informed Consent Term (FICT).

RESULTS

From the data collection, it was verified the participation of 34 students enrolled in the Statistics in Health discipline, of the medical course of a Public HEI, being 13 (38.2%) male and 21 (61.8%) female. These answered questions about the posi-

tive and negative aspects observed during the course, and made inferences about the help of the teaching materials prepared by the monitors, such as the handouts, in the intellectual performance during the course.

Regarding the positive aspects, 9 (26.5%) students mentioned the availabi-

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lity of the monitors to answer questions, 7 (20.6%) listed the didactics used, 6 (17.6%) mentioned that the study materials were of excellent quality and well prepared, 4 (11.8%) reported adequate methodology and review, 3 (8.8%) indicated good or-

ganization, assistance in solving exercises, objectivity, attention to those being monitored, synchronization with the content taught by the professor and good guidance. Furthermore, 2 (5.9%) liked the punctuality of the monitors, as well as the efficiency, practicality, interpersonal communication, active participation and commitment of these during the monitoring classes, with emphasis, also, on the good visual resources used and the enlightening language, which provided dynamic and effective learning. In addition, 1 (2.9%) indicated mastery of the content, proactivity, support in the study, through summaries and concern with the students' learning.

In relation to the negative aspects in conducting the monitoring classes, it was noticed that the majority 29 (85.3%) of those monitored did not show any divergence between the expected competences and the activities performed by the monitors. However, there was a desire for greater frequency in monitoring, given that the course syllabus is the first contact with the subjects proposed at the university level. It was also suggested the standardization of the number of exercises proposed for both specific themes, with the aim of optimizing the performance in the discipline, since some contents were exercised with more questions than others.

Concerning the effectiveness of the materials developed by the monitors, questions with answers on a Likert scale were chosen to better understand the students' perceptions. Thus, it was noted that the majority 29 (85.3%) of the undergraduates marked the option I totally agree; 4 (11.8%) chose to partially agree and 1 (2.9%) remained neutral in the face of the assertion.

It was also questioned about the suitability of the handouts in the absorption of knowledge in a theoretical and practical way, with exercises proposed in the discipline. It was noted that the majority 27 (79.4%) of the students totally agreed; 5 (14.7%) partially agreed, 1 (2.9%) remained neutral and 1 (2.9%) partially disagreed.

DISCUSSION

Among the tasks of the monitoring students are: assisting in the feasibility of the activities proposed by the professor, preparing questionnaires that favor the understanding of the contents and reviewing tests with the monitored students.

The performance in academic monitoring provided the opportunity, in the various activities proposed, to exchange experiences and consolidate knowledge among those involved, configuring itself as a facilitator of the teaching and learning process on the subject. In view of this, the scientific literature states that while student monitors review the content, social skills are exercised, such as guidance and leadership, which favors professional expertise. Furthermore, the choice of active methodologies in teaching provides opportunities for communication skills and the strengthening of interpersonal bonds. That said, it is inexcusable to provide synchronous dialogue and training related to the methodological proposal, since from these traditional methods of learning are reinforced, in addition to stimulating critical reflection, essential for understanding statistics in the health and disease process at different levels of care in the network.^{11,12}

In the present study, positive aspects inherent to monitoring were evidenced, namely: relevant methodology and didactics, active participation of subjects and dynamic learning. Thus, it is clear that problem solving, with the help of monitors, tends to contribute to the formation of new autonomous, reflective and active professionals in society.¹³

Another benefit provided through monitoring was the dialogic group discussion, which enhances the understanding of statistical phenomena in health, as well as fosters learning. This strategy promotes the retention of knowledge in the medium and long term, corroborating studies that claim that the interpersonal relationship between monitors and monitored provides the shared construction of technical-scientific knowledge.⁴ In agreement, the participants of this research reported that the clear and objective language, added to the adequate

direction and the good communication made the learning meaningful. It is understood, therefore, that the resolution of exercises stimulates identification with the theme and self-assessment about the progress achieved.

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aims at individualized monitoring, in which monitored students can express their difficulties and limitations regarding the course menu. From this perspective, it is up to the monitors to provide support in order

to resolve any doubts. This study pointed out that the interpersonal relationship was highlighted as a guiding means for knowledge. This finding corroborates studies, in which it is deduced that the stimulus to learning, during graduation, directly impacts on professional insertion through selections and contests.^{12,13}

As for the study materials prepared by the monitors, contextualized theoretically and practically, these were perceived by the students as a guiding strategy for the recognition of daily actions in health, based on the understanding of biostatistics and its implications for professional practice. The importance of synergistic use with scientific texts, such as articles, is also highlighted, since their reading and interpretation denotes relevance in health care practice. Thus, the performance in the discipline of Statistics in Health becomes close to the reality of academics and constitutes an alternative way of learning to the topics taught by the professor.

With regard to the benefits of academic monitoring for faculty advisors, the support of student monitors regarding the division of tasks is noteworthy.¹³ In addition, self-analysis as an educator is provided, since the bond with student monitors makes it possible to understand the main difficulties of students monitored on the content of the discipline, configuring a means of evaluating their skills and methodologies applied in the teaching and learning process.

Regarding the negative aspects investigated in the present study, despite the small quantity, these are important for the improvement of the monitoring program, given that the content approach, when implemented in a constructivist way, enhances the planning and feasibility of monitoring activities, which leads to greater student adherence.

In this sense, adequacy in teaching is suggested, since in the face of the pandemic context, the World Health Organization (WHO) recommended the transition from the face-to-face educational model to Distance Education (EaD). Therefore, it is necessary to use information and communication technologies (ICTs), in order to

ensure the inclusion of students in the face of the consolidation of knowledge¹⁰, favoring attractive and innovative teaching.

Thus, it is believed that the monitoring program, in the discipline of Statistics in Health, provided opportunities for personal growth and professional expertise for those involved. Therefore, the methodologies used motivated the cognitive expansion, which points out several formative benefits as a result of participation in academic monitoring.¹⁵

Thus, patients will be cared for by future professionals with greater preparation, which will provide committed interventions and evidence-based procedures, with a focus on comprehensive and resolute health care.

As contributions, the expanded view of teaching was noted, evidenced in the benefits of monitoring for the teacher, monitors and monitored students, above all, due to

the new teaching scenario, as a virtual modality. Therefore, the results of this study can promote the literature on the subject, as well as support educational actions, at the university level, with the aim of optimizing the teaching and learning process.

Among the limitations of the study, social distancing, the collection profile, with the sample composed of students from only one university, it is not possible to generalize the results, as the findings may have been conditioned by stressors, overload of academic activities and/or psycho-emotional support received.

Therefore, new studies with academics enrolled in the different academic semesters, from public and private HEIs, are suggested, in order to stimulate reflections on the effectiveness of monitoring, as an educational tool in the university environment, and the co-participation of monitors in health training.

CONCLUSION

In view of the above, it is inferred that the academic monitoring program, implemented in the Statistics in Health discipline, was positively evaluated, since it provided the integration between theoretical and practical knowledge, the development of communicative skills and the protagonism of the monitors, in addition to encouraging technical-scientific criticism and the reflection of monitored students about the curriculum. In addition, it provided assistance to the teacher regarding the assessment of the learning of the class, as well as providing opportunities for remodeling the teaching and learning process, adapting it to the context of the Covid-19 pandemic.

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