QUALITY TEACHER IN A PRACTICAL PROGRAM OF PEDIATRICS

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Abstract

Introduction: Satisfaction surveys are an essential tool for evaluating the impact of teacher improvements. Obtaining a significant data number is important in order to validate the results obtained. For four years we have conducted satisfaction surveys for our students, before and after completing the course, in online format, to obtain a high number of answers.

Objectives: To analyze the satisfaction of our students with the subject of pediatrics, totally theoretical, comparing it with the subject Clinical practice of pediatrics, basically practical.

Material and methods: We analyzed the satisfaction surveys collected during four academic courses, about theoretical teaching and about practice. For this, we group the questions according to the contents in 8 subgroups.

Results: In the results obtained in classical teaching, basically theoretical, we did not find significant differences in satisfaction over the years, being higher and higher than that obtained in other subjects of the degree. We found only statistically significant differences in the students' perception of the suitability in the evaluation in the last year.

In the results of satisfaction in the Clinical Practice Subject of Pediatrics, note that although the results are very favorable, there has been a slight worsening of the results obtained with statistical significance in the perception of the teaching staff and in the teaching results.

If we analyze the questions that refer to the OSCE, the degree of satisfaction has improved, especially in some of the items we collect, such as the duration of the test, degree of stress and simulation of situations, after the changes introduced in the last year.

Conclusions: Satisfaction surveys are a valid tool to detect the satisfaction of our students and we must enhance their use.

Keywords: Survey, Satisfaction, OSCE.

1 INTRODUCTION

Surveys are one of the instruments most used to assess satisfaction and thus an important element to evaluate the quality of teachers and the teaching program (1-5). The questionnaires are designed to be able to quantify and compare the information they collect, measure a theoretical or abstract concepts (6), and are based on the and are based on the validity of the verbal information of perceptions, feelings, attitudes or behaviors transmitted by the respondent(7).

Both the elaboration of them and their application constitute a support for the systematization of a system of education quality evaluation.

The evaluation of the students’ satisfaction with the education they receive, is becoming more and more important for educational reforms(8). The information they provide is essential to evaluate the teaching quality, the search for curricular areas that need revision, and also to follow the changes made over a longitudinal period (2, 8-13)

In our Faculty of Medicine, there is an institutional evaluation that is done at the end of the course, the questions in this survey are clearly oriented to facilitate decision making on teacher promotion and other aspects and the students' response is very variable and generally very poor, making it difficult to extrapolate the conclusions. It seems clear that such surveys are not adequate to identify pathways for improvement (4, 5, 14).
In short, if it is desired to evaluate the way in which the teaching-learning process is developed throughout the course that is taught, it will have to use the own tools, independent of those used by the institution, appropriate to the objective pursued.

The development of a questionnaire is a complex process and requires verification of its usefulness before its application, therefore it is tended to use previously validated questionnaires (7), which will facilitate our work, as long as they conform to what we want to measure, otherwise, we should proceed to validate our own questionnaire (3, 4).

2 OBJECTIVES

- To analyze whether, after the implementation of a competency-based program, students are better able to assess the different aspects of teaching: contents, teaching planning, teacher perception, student participation, clinical practices, evaluation and results.
- To analyze the variations in satisfaction over the four years of implementation of the Teaching Innovation in Pediatrics plan to be able to establish areas for improvement.

3 MATERIAL AND METHODS

During the first year of implementation of the Teacher Innovation Plan, a questionnaire was designed and validated (4). The design and validation of the same are not subject to development in this article. The questionnaire contains 38 items, grouped into eight subgroups according to the content: subject contents, teaching planning, teaching results, teacher perception, student participation, practices and evaluation. To measure the perception of student satisfaction, a Likert scale was used with four variables: poor, regular, good and very good.

The questionnaires are made through the Moodle platform, that is to say they were completed online, which improved the participation of the students. Both questionnaires were anonymous.

The first one was made before beginning the subject of Clinical Practice of Pediatrics, which was taken in the 6th academic course, and was therefore referred to the Pediatrics subject taken in the same year, in the first two courses analyzed and in the previous year (5th course), in the last 2 years.

The second questionnaire was completed at the end of the practical evaluation, following an OSCE-type examination (Objective Structured Clinical Examinations) and valued the subject of Clinical Practice of Pediatrics in which a teaching innovation plan was initiated, incorporating changes in teaching methodology, through the development of a virtual platform, seminars, dummy simulation and structured clinical practices. In this questionnaire are added another 20 questions related to the practical exam carried out, in OSCE format.

We analyzed the satisfaction surveys collected during four academic courses, both with theoretical teaching (N=649) and with practice (N=585). For your better understanding we have grouped the items in the eight subgroups already mentioned.

P-values lower than 0.05 were considered statistically significant. The calculations were performed using the statistical package R version 3.0 (R foundation for statistical computing, http://www.R-project.org), and SAS version 9.2. (Sas Institute Inc. Cary NC, USA).

4 RESULTS

As for the results obtained in classical teaching, basically theoretical, we did not find significant differences in satisfaction over the years, being higher and higher than that obtained in other subjects of the degree. We only found statistically significant differences in the students’ perception of suitability in the evaluation in the last year (Table 1).
Regarding the satisfaction results for the subject of Clinical Practice of Pediatrics (Teaching Innovation) (Table 2), it should be pointed out that despite the fact that the results have remained very favorable over the years, in latters we have found a slight deterioration in the results obtained concerning the teachers’ perception and about teaching results, with statistical significance. The finding of these facts has led us to analyze the causes in greater depth, with the result that the great burden of care in hospitals and the large number of students who attend the practices makes their quality resentful.

If we analyze the questions that refer to the OSCE practical test, the degree of satisfaction has improved, especially in some of the items we collect, such as those related to test duration, stress level and simulation of situations, after the changes introduced in the last year, in which due to the modifications made in the other subjects when the Bologna Plan was completed, we adjusted the duration of our evaluation test by performing a mini-OSCE which was completed in two hours, while the duration of the previous was of four hours.

### 5 DISCUSSION

At the beginning of our Teaching Innovation Plan, we proposed as one of the main objectives to know the satisfaction of students with the new teaching and evaluation methodologies. Our students had
previously received teaching in the subject of Pediatrics with the classical format of master classes and the same sample participated in the teaching innovation plan, so they served as a control, and allowed us to give more validity to our results, since they are who show us their perceptions and feelings with two different ways of understanding teaching.

A first satisfaction survey on teaching and classic evaluation was carried out before the beginning of the subject of Clinical Practice of Pediatrics, which included the new teaching methodology. After completing it, the same survey was repeated, adding some items referring to the OSCE type test and thus analyzing if there had been changes in the perception of both teaching and evaluation systems.

We found a good overall satisfaction with the teaching received in Pediatrics in its classic form, which improves when new methodologies of training and evaluation by competencies are implemented. We cannot establish a comparison with other revised series, in which their results are much lower than those found in our series, around 23-60%, because the characteristics of the sample, the subjects that evaluate and the questionnaires type are not comparable (15). However, the overall satisfaction with the new methodologies is similar to those provided by universities in which this educational system is already implanted (8).

Analyzing the results of the four years that have elapsed since the beginning of the methodological changes, we have observed that a high degree of satisfaction with the teaching results has been maintained, both in classical teaching (8.32-7.86) and in competency training (8.53-7.88). In other words, the students consider that what is learned in the subject is useful and valuable for their professional practice. Unlike other works found, we obtain a high degree of satisfaction with both classical teaching and competency training (16).

In concern to the practices of the subject and after the structuring of the Practical Pediatric Plan, the use of a portfolio, the definition of competences and self-evaluation during the same, our project showed a very significant improvement in the satisfaction of the practices between the classical and innovative teachings, in line with what has been contributed by other authors (17); worsening in last year, probably due to the high burden of care in recent years and the high number of students per practical pediatric plan, which makes their participation more difficult.

Our experience brings improvements in the teachers’ perception, between the classic formation and the formation by competences; in both cases higher in our experience in Pediatrics than those described in other global degree studies (15).

Teaching planning in our study was well valued in classical teaching, with significant improvement for competency training, in relation to those provided by other authors in their global degree studies (18, 19).

In terms of contents we also find better results after training by competencies, probably because they are much more practical and students valued them better, because they bring them closer to their professional performance.

The evaluation and the OSCE were also highly valued in the Teacher Innovation Plan in line with previous inputs (16, 22). The worst evaluated aspects in the first two years were the duration of the test and the stress during the development, all very in line with previous national and international experiences (5, 20-27). Because of this, in the last year we realized a mini-OSCE, with only six stations, a knowledge test and a MCQ. After these changes the duration of the test was halved and the data provided after the survey show greater satisfaction in this aspect and therefore overall with the test.

The students’ perception about their participation in the teaching and learning process presents low satisfaction’s rates in classical teaching and, although they improve with teaching innovation programs, the results are not satisfactory. In this section other authors provide similar results (15, 28, 29). The usefulness of conducting surveys to find opportunities for improvement in the planning of training programs is demonstrated in this respect. Our students demand more interaction or “feedback” between teachers and students. Improving this aspect will not only result in a better perception of student satisfaction, but also in all teaching and learning processes (11, 30, 31).

6 CONCLUSIONS

In general, a high degree of satisfaction has been obtained in the total number of students evaluated in the four years since the implementation of the new teaching methods.
However, there has been a progressive deterioration in the perception of teachers, perhaps due to the increase in the burden of care detected in recent years in university hospitals, which makes it difficult to attend to and continue to train the student, as well as to detect specific and isolated cases of students' complaints due to lack of attention of some tutor.

Also the perception about teaching has worsened, without being able to know exactly its cause, has also been detected a smaller number of visits to the virtual classroom and its teaching resources in the last year evaluated, which describes a lower interest of the student by the new teaching methods employed, perhaps for their habituation to the systematic use of these resources since the implementation of the Bologna Plan.

Conducting teacher surveys allows the identification of areas for improvement in the planning, development and evaluation of competency-based teaching plans.

REFERENCES


