Satisfaction of Physiotherapy Students Towards a Formative Evaluation Programme Applied to Cardiovascular Physiotherapy

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Abstract

Introduction. Nowadays, assessing students’ opinions at the university is very important, in order to improve their interest and motivation towards the subject. Evaluation is considered as a systematic activity integrated in the teaching-learning process to optimize this process, readjusting the objectives, programmes, methods and resources. Thus, university teachers have to identify difficulties in the students’ learning, to stimulate the effectiveness of learning strategies and resources and assigning qualifications. In addition, it is an orientation for pupils, trying to improve their interest and motivation, both highly related to the students’ satisfaction. The purpose of this study was to evaluate the satisfaction towards the materials used, the teaching methodology and the evaluation methodology of a programme based on formative evaluation.

Methods. 185 Physiotherapy students (21±4,2 years, 48% women) were assigned to an experimental group (n=83) or to a control group (n=102). All participants signed an informed consent. A programme based on formative evaluation to teach Cardiovascular Physiotherapy was worked out for the students of the third course of the Physiotherapy Degree (University of Valencia, Spain). A special syllabus with multimedia materials was elaborated in the on-line institutional repository Roderic and was available for both groups. Experimental group followed the new methodology: formative evaluation, active group sessions and several on-line activities. On the other hand, control group performed the subject as usual with traditional lectures and final exams. Satisfaction towards the materials used, teaching methodology and evaluation methodology was assessed at the end of the programme. Mann-Whitney tests were used to compare between-group differences. Significance level was set at 0,05.

Results. Regarding the satisfaction towards the teaching methodology, experimental group showed a significantly higher satisfaction when compared to the control group (25,50±3,56 vs. 24,0±3,59 respectively, p=0,022). Nevertheless, satisfaction towards the teaching materials used did not show significant differences (14,50±3,08 vs. 14,0±2,80 respectively, p=0,610). In addition, evaluation methodology was not significantly different between both groups (16,0±2,10 vs. 16,0±2,87 respectively, p=0,329). In general, students were satisfied with the programme we used.

Conclusions. The learning programme we present improves students’ satisfaction toward the teaching methodology of a programme based on formative evaluation in order to learn Cardiovascular Physiotherapy.

Keywords: satisfaction, formative evaluation, Physiotherapy.

1 INTRODUCTION.

Satisfaction is defined as the coincidence between the student’s perception of the educational context and the importance that they give to each aspect [1].

Students’ satisfaction at the University has become vital for the institutions of this sector. Satisfaction of students is related to academic success and to the permanence of the students in the institution. [2].

According to this, it is extremely important to find reliable ways to measure the students’ satisfaction at the University. Thus, the institutions are able to know their reality, and to compare it with other competitors and analyze it over time. Therefore, these type of studies aimed at assessing the impact of the students’ satisfaction at the University are needed, including services required to have an integral formation of quality [2].
With regard to the research about perceived quality in the university context, variation in terms of the number and contents has been found. Some authors analyze the educational work of the teacher, whereas others expand the research to the global experience of the students at the University, in relation to the group of services that it offers [3].

There are different and controllable elements that affect the students` level of satisfaction. These elements are the staff services, attitudes and behaviours of teachers, teachers` competencies, the career opportunities, the facilities, the reputation of the University and other extra services. The most important of them are logically the ones related to teachers and, specifically, to their competencies [3].

In any case, the student is the best-positioned element to assess the received teaching through levels of satisfaction. This role as the priority client of the educational activity is due to the fact that students act as receptors and subsequent users of the education given by the University [4].

The aspects related to those features that good teachers should have are those which determine, to a greater extent, the satisfaction achieved by the students. Teaching-related aspects are the elements that mainly determine the satisfaction. For instance, the level of the practical knowledge, the updated knowledge, the ability to transmit knowledge, the ability to explain clearly, the teaching methodology or the use of supplementary material.[3].

Student`s satisfaction is the central axis of all processes that are conducted at the University, because their main role is the student-centered teaching. The quality of the educational institutions can be observed from different points of view. However, we need to ask the student as the figure who receives the education and the consequences of its quality [2].

Nowadays, assessing students` satisfaction at the University is very important, in order to improve their interest and motivation towards the subject. Evaluation is considered as a systematic activity integrated in the teaching-learning process to optimize this process, readjusting the objectives, programmes, methods and resources. Thus, University teachers have to identify difficulties in the students` learning, to stimulate the effectivity of learning strategies and resources and assigning qualifications. In addition, it is an orientation for pupils, trying to improve their interest and motivation, both highly related to the students` satisfaction.

The purpose of this study was to evaluate the satisfaction towards the materials used, the teaching methodology and the evaluation methodology of a programme based on formative evaluation.

2 METHODOLOGY

A programme based on formative evaluation to teach Cardiovascular Physiotherapy was worked out for the students of the Physiotherapy Degree (University of Valencia, Spain).

Regarding its structure, Cardiovascular Physical Therapy is an obligatory subject in the third year of the Physiotherapy Degree, which has a study load of 6 ECTS credits at the University of Valencia, Spain.

All students were informed about project goals and confidential treatment of data. All students signed a written informed consent form. Students were screened for exclusion criterion, including having prior training on the subject. None of them meet exclusion criterion and therefore all students were admitted.

Thus, 185 Physiotherapy students (21±4,2 years, 48% women) were assigned to an experimental group (n=83) or to a control group (n=102). All participants signed an informed consent.

Experimental group followed the new methodology: formative evaluation, active group sessions and five on-line tests. On the other hand, control group performed the subject as usual with traditional lectures and final exams.

A special syllabus with multimedia materials was elaborated in the on-line institutional repository Roderic and was available for both groups [5].

Satisfaction was evaluated by means of an anonymous questionnaire of satisfaction in order to assess the student satisfaction in relation to the teaching materials, teaching methodology and evaluation methodology, throughout a Likert scale (table 1). Satisfaction was assessed at the end of the programme. Table 1 shows the satisfaction questionnaire we used.
Once the teaching of the subject Cardiovascular Physiotherapy is finished, we would be pleased if you answered the following questionnaire in order to know your opinion about the materials, the teaching methodology and the evaluation system used in the subject. Mark a cross in the option that you consider more appropriate.

1= Totally disagree; 2= Disagree; 3= Undecided; 4= Agree; 5= Totally agree.

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<tr>
<td>I consider useful for my learning the multimedia material published in the institutional repository RODERIC.</td>
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<td>I consider adequate my learning by means of the theoretical classes.</td>
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<td>I consider useful for my learning the preparation and presentation of a clinical case.</td>
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<td>I consider useful for the development of my professional competence as a future physiotherapist to elaborate a clinical case.</td>
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<td>I consider adequate learning by means of the practical laboratory lessons.</td>
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<td>I consider useful to work in group and it helps me to develop my professional competences as a future physiotherapist.</td>
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<td>I consider adequate the criteria used for assessing my project in group.</td>
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<td>The contents asked in the theoretical exam seem appropriate to me.</td>
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<td>The questions of the practical exam seem appropriate to me.</td>
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<td>In general I consider appropriate the teaching methodology used in the subject.</td>
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<td>In general I consider appropriate the evaluation system used in the subject.</td>
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<td>I consider useful for my learning the teaching material available in the virtual classroom</td>
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<td>In general, I consider necessary the acquisition of specific books that about the subject matters.</td>
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<td>I consider necessary search scientific material in databases for the study of the subject.</td>
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Mann-Whithney tests were used to compare between-group differences. Significance level was set at 0.05.

3 RESULTS

In relation to socio-demographic data, regarding the sex, chi-squared test was used and statistically significant differences between groups were found (control group: 56.3% men, 43.7% women n=151; experimental group: 32.4% men, 67.7% women, n=34 p=0.012). By contrast, no significant differences were observed for the rest of socio-demographic variables.
Regarding satisfaction towards the teaching methodology, experimental group showed a significantly higher satisfaction when compared to the control group (25.50±3.56 vs. 24.0±3.59 respectively, p=0.022).

Nevertheless, satisfaction towards the teaching materials used did not showed significant differences (14.50±3.08 vs.14.0±2.80 respectively, p=0.610).

In addition, evaluation methodology was not significant different between both groups (16.0±2.10 vs. 16.0±2.87 respectively, p=0.329).

In general, students were satisfied with the programme we used.

4 CONCLUSIONS

The learning programme we present improves students’ satisfaction towards the teaching methodology of a programme based on formative evaluation in order to learn Cardiovascular Physiotherapy.

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REFERENCES


