



DOCENCIA - INVESTIGACIÓN

Nursing students' satisfaction in Problem-Based Learning

Aprendizaje Basado en Problemas y satisfacción de los estudiantes de Enfermería

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Keywords: Problem-Based Learning; Nursing.

Palabras clave: Aprendizaje basado en problemas; Enfermería.

ABSTRACT

Introduction: The objective of this research was used to evaluate the effect of Problem-Based Learning in the Nursing students' satisfaction.

Material and Methodology: A descriptive transversal study. The task was conducted by 134 second-year Nursing students at the University of Valladolid. Scale satisfaction of the University of Colima (Mexico) was administered under PBL implementation. SPSS was used for data analysis and the content analysis on the participants' responses.

Results: Overall the participants described the contents of the clinical case as engaging, effective, practical and varied. 55% of students revealed their preference for traditional methodology compared to PBL. 78% liked this new methodology. Students' perception of active learning through PBL showed a high level of motivation and satisfaction in regards to content, the tutorial process, the tutor and the students' role; whereas the time assigned and the major workload is what least satisfied them. Nevertheless, satisfaction in general was high.

Conclusion: The PBL methodology reported successful results according to nursing students' opinions. It was reported that PBL improves communication and the students' feedback is implemented. There is a correlation between the teaching and learning process not only in evaluation assessment but also in personal treatment in respect to the benefits to each other.

RESUMEN

Introducción: El objetivo de esta investigación fue determinar el grado de satisfacción de los estudiantes de Enfermería después de utilizar la metodología Aprendizaje Basado en Problemas.

Material y métodos: Estudio descriptivo y transversal. La muestra estuvo formada por 134 estudiantes de 2º de Grado de Enfermería de la Universidad de Valladolid. Después de la implementación de ABP se administró la escala de satisfacción de la Universidad de la Colima (México). Para el análisis de datos se utilizó el programa SPSS y se realizó el análisis del contenido de las justificaciones de las respuestas.

Resultados: A los estudiantes, los contenidos de los casos clínicos les resultaron interesantes, prácticos, útiles y variados. Un 55% de los discentes prefiere la metodología tradicional frente al Aprendizaje Basado en Problemas y a un 78% le gustó esta nueva metodología. El aprendizaje activo a través de Aprendizaje Basado en Problemas, supuso una alta motivación y una elevada satisfacción percibida por los estudiantes respecto a los contenidos, el proceso tutorial, y los roles del tutor y del alumno; mientras que el tiempo asignado y la mayor carga de trabajo es lo que menos les satisface, aunque la satisfacción en general fue elevada.

Conclusiones: Utilizar una metodología ABP aporta una elevada satisfacción en los estudiantes de Enfermería. Resulta favorable la retroalimentación constante en el proceso de enseñanza-aprendizaje, tanto en sesiones de evaluación, como en el trato personal y se mejora la comunicación en el aula.

INTRODUCTION

Problem Based Learning (PBL) is a teaching and learning strategy in which importance is given to both the acquisition of knowledge and the development of skills and attitudes. In PBL, a small group of students is allocated a facilitator who assumes the role of tutor to analyze and solve a clinical problem specially designed to achieve certain learning objectives ⁽¹⁾.

The main goal of PBL is not just the acquisition of knowledge but the integral development of the practitioners in training. The student is the one who identifies objectives, undertakes, discovers, and wants to know more what enhances leadership capacity, communication and decision making, creativity, critical thinking and how it encourages teamwork. Different studies share the advantages of PBL compared to traditional teaching style ⁽²⁻¹⁰⁾.

According to these investigations, students who learn through PBL have better clinical reasoning, are more skilled at using the knowledge in real time, enhance motivation and use strategies for depth-learning at higher rates compared to students who receive a traditional expository teaching.

Learning is a complex act that demands participation, critical thinking, reflection and an active search for information. It requires the mobilization of internal factors such as knowledge, procedures and attitudes that are reflected on the knowledge and know how to be a student.

External factors for materials, technological resources and teachers are an indispensable source of knowledge to train the new professional and also refer to the professional workplace. So, it is interesting for education to be close to what the future version of profession as a PBL immersion study will be ^(11,12).

MATERIAL AND METHODS

Descriptive transversal study. The objective was to determine the level of student's satisfaction after using the PBL methodology. Descriptive analysis of the data by determining percentages (categorical variables) was performed.

The task was conducted by 134 students of second year. Nursing students at the University of Valladolid, Spain: 114 women and 20 men with an age range between 19 and 51 years and the average age is 23 years old. After the implementation of PBL in the classroom during an academic semester of 2012, a questionnaire was administered to students.

The satisfaction scale designed at the University of Colima, Mexico with over 10 years experience in the implementation of PBL in Health Sciences (13) was selected. It is a Likert -type scale with eight items and six response options ranging from 1 [not satisfied] to 6 [completely satisfied]. The scale assesses the level of students' satisfaction in terms of the revision content in tutoring, the tutor's role; the student's role; the tutoring process or classroom practice; the evaluation process; educational resources ; design cases; the allotted time; the characteristics of a classroom and the overall level of satisfaction with PBL, considering all that this implies. For each item, respondents are asked to briefly justify the selected scale response. Questionnaire responses and content analysis of the justifications of responses using SPSS for Windows were analyzed.

RESULTS

To find the reliability of the satisfaction scale, Cronbach alpha of 0.83 was obtained which was considered appropriate to make the corresponding analysis in the interests of the study.

In the results, 55% of the learners prefer the traditional methodology to the problem-based learning one and 78% liked the new methodology. The following figures show the results obtained, the score values from 1 [not satisfied] to 6 [completely satisfied] are expressed as percentages.

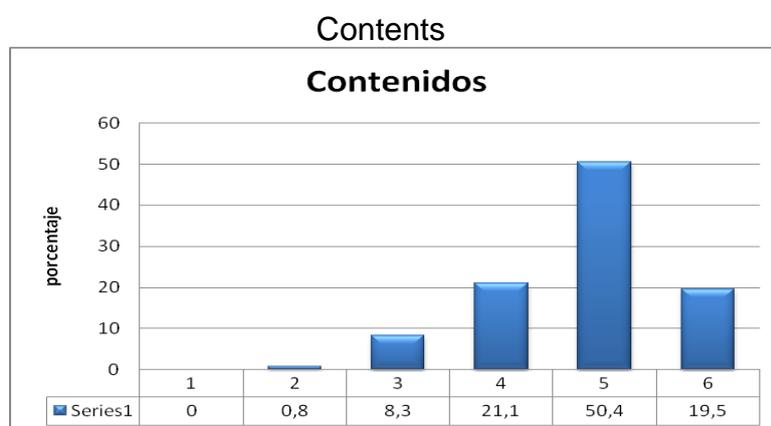


Figure 1. Degree of satisfaction with the content.

Tutor's role

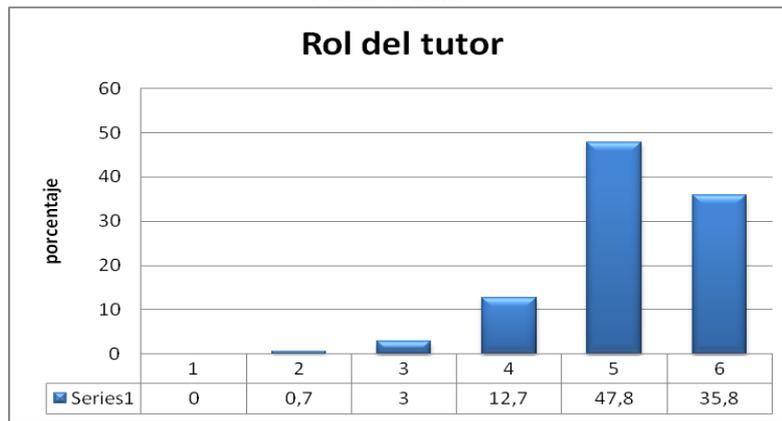


Figure 2. Degree of satisfaction with the tutor's role in PBL.

Student's role

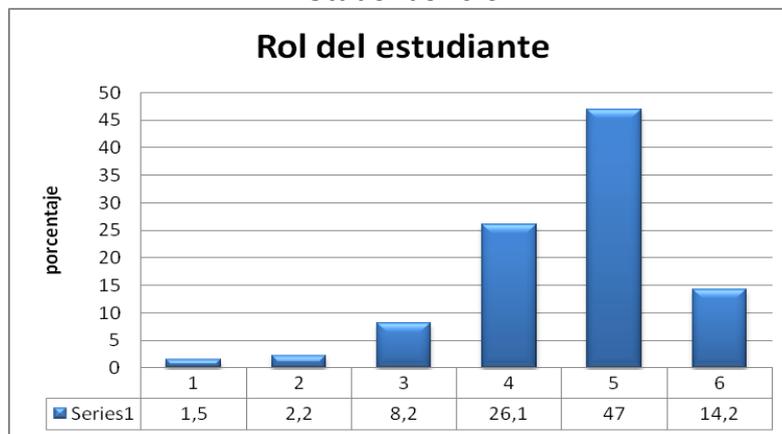


Figure 3. Satisfaction with the student's role in PBL.

Tutorial process

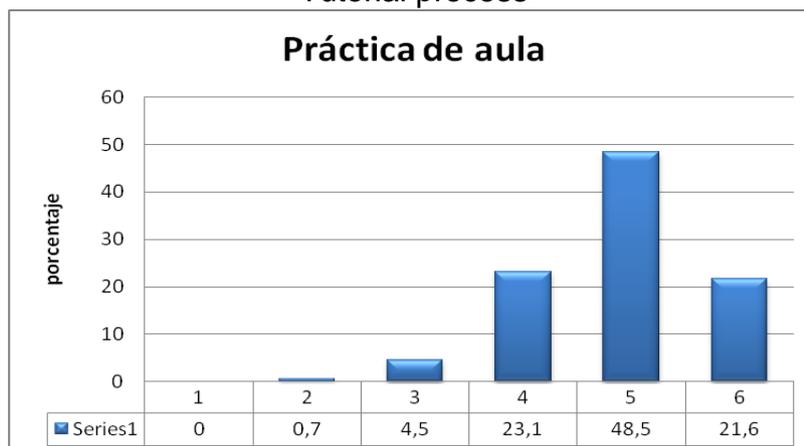


Figure 4. Satisfaction with the PBL tutorial process.

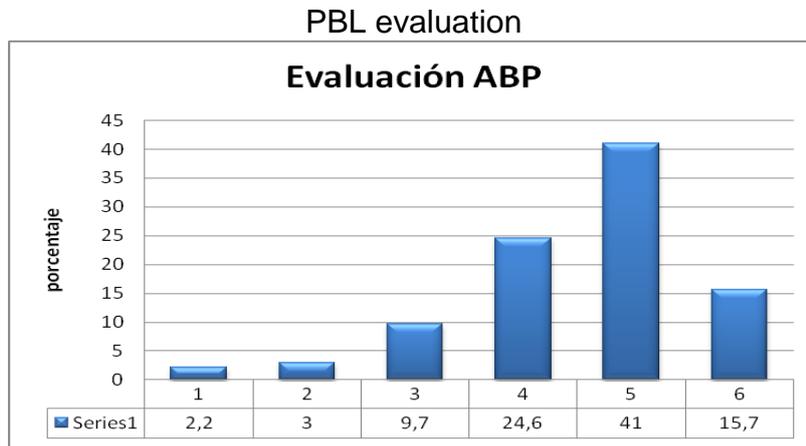


Figure 5. Students' satisfaction with the PBL assessment.

Students added their justifications regarding the evaluation process, "...individual work is not appreciated, new and interesting aspects are valued and what has allowed us to evaluate ourselves and evaluate our peers, is important to encourage work with the evaluation..." among other reasons.

It is generally thought that the responses on educational resources were sufficient preparations. PBL prepared cases were found interesting for being real and the classrooms that were used were considered adequate.

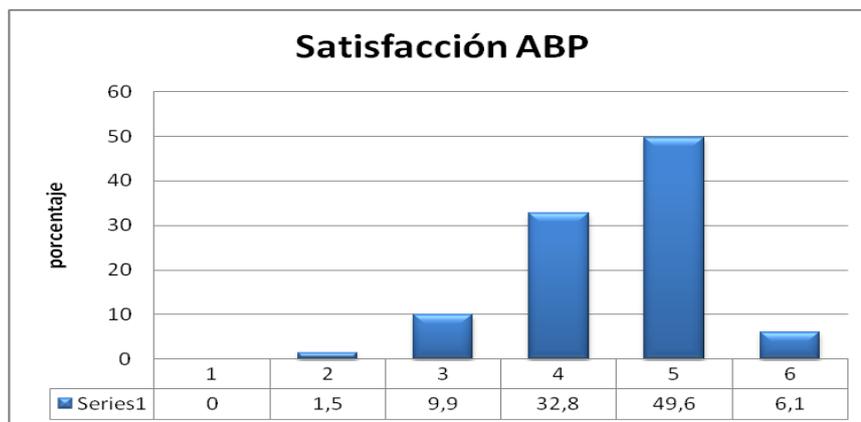


Figure 6. Overall degree of satisfaction with PBL.

DISCUSSION

In the survey results, students reported that they found the content interesting, practical, useful and varied. An important feature is the use of specific problems for real, stimulating situations and the contribution to the development of social responsibility.

Interestingly, 55% of students report that they still prefer a traditional teaching methodology compared to 45% who prefer PBL. It may be because the active learning methodology of PBL requires more effort and more time spent on the students' dedication to deepen their knowledge, as is demonstrated in the scientific literature.

Additionally, learning styles are different in students and it is impossible that everyone likes an active methodology and finally, they were not accustomed to the use of PBL in their training.

However, when asked if they like the PBL methodology, 78% responded affirmatively and 22 % did not like it. On the scale of overall satisfaction where 1 means 'not at all satisfied' and 6 'fully satisfied', 50 % of the students assigned the rating of 5; 33% a score of 4 and 6 % a score of 6 , (that being high overall satisfaction perceived as seen in Figure 6).

Similarly, from the tutor's point of view, monitoring groups in classroom practices, reviewing students' handouts, creating feedback guiding students, preparing material in advance (case reports, guides, interesting articles , content on debates, etc;) asking questions to reflect on problems , mediating in group conflicts leading to greater dedication and teacher effort but bringing greater satisfaction and higher quality in teaching and learning.

Not all teachers are available to tutor in PBL because of the resistance to change; the lack of motivation to innovate; ignorance of the methodology; the lack of time , the loss of leadership in the classroom and not delegating leadership and learning to the students themselves ⁽¹⁴⁾, among other factors.

The results of this study agree on two meta- analyses that have been researched research for 20 years on the PBL methodology in Health Sciences ^(15, 16), the main reference of the methodological rigor which concluded that PBL has significantly higher rates of satisfaction in students than traditional learning.

Students exposed to PBL reported to have felt less stress (anxiety, depression, hostility, and somatization) than those undergoing traditional teaching ⁽¹⁶⁾. More advantages than disadvantages are perceived, the most frequently mentioned positive aspect is that PBL can be discussed with colleagues and work done collaboratively and the disadvantage is that it requires more time to achieve learning ⁽¹⁷⁾.

Integrating the results of the analysis of the content and satisfaction questionnaire that was passed to students, PBL was a high motivation for learning and high satisfaction was perceived by students. In addition, changes successfully accepted the students' roles being responsible for their learning and the tutor's role.

The student's role becomes an active role in search of knowledge to try to resolve the clinical question. The tutor is what guides and motivates the ABP group must leave the vertical and authoritarian perspective to make way for a dialogue, capable of assuming the role collective construction of knowledge. The designed clinical problems were significant for students as they tried to solve real problems for case consultation. Students recognized these problems as relevant from the professional outlook so they felt motivated to work , not only because they understand that the knowledge gained by thinking about these problems will be useful in the future but also because they have the opportunity to display their creativity and flexibility in PBL problem solving.

What resulted was less satisfactory workload; time spent and there were too many groups or tutors. The greatest difficulty in the use of time came from becoming active members of their learning; students recognize that they spend more time on the

subject; they even feel insecure about their acquired knowledge. This result agrees on other research by Stephen⁽¹⁷⁾ and Alvarez et al⁽¹⁸⁾.

This study has limitations because it is a non-probability sample which was passed as a survey of opinions therefore the study is restricted to the sample and context of Higher Education in Nursing in which the problem-based learning was applied.

CONCLUSIONS

Using the PBL methodology offers high satisfaction in Nursing students. What is less satisfactory is the amount of time and effort taken to achieve learning. The roles change: students being the protagonists of their own learning and teachers guiding them. There is constant feedback on the teaching and learning process in both evaluation sessions and personal contact that improves communication.

Although educational innovations may be difficult to implement in Higher Education, Problem Based Learning provides a high level of student satisfaction and this is true for teachers who immerse themselves in it.

Using an active methodology such as PBL has optimal interactions between the tutor and the students; creates a positive learning environment in the classroom facilitating communication and allows an improved teaching and learning process.

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ISSN 1695-6141

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