Evaluation of teaching in worker’s health by nursing students

ABSTRACT

Objective: To identify how the nursing students evaluate the teaching-learning used in the discipline of Nursing Care in Occupational Health and the importance of the discipline for academic training. Method: Quantitative research, descriptive, developed with academics from the School of Nursing of the Federal University of Rio Grande who attended this discipline. We used self-report instrument with closed questions arranged in Likert scale, covering three categories: goals of the discipline, teaching methods and teacher performance in the teaching-learning process. The data were quantified using descriptive statistics. Results: The 78 scholars highlighted the importance of the discipline for professional practice and the theory-practice relationship for learning quality; it is necessary their participation in the construction of the teaching. Conclusion: The academic evaluation, important teaching tool, allows identifying actions that can improve the training and performance of the nurse, entering the academic and co-responsible. Descriptors: Students nursing, Education nursing, Occupational health, Evaluation, Nursing.

RESUMO


RESUMEN

Objetivo: Identificar los académicos de enfermería evalúan el proceso de enseñanza-aprendizaje utilizado en la disciplina de Asistencia de Enfermería en Salud del Trabajador y la importancia de la disciplina para la formación académica. Método: Investigación cuantitativa, descriptiva desarrollada con académicos de la Escuela de Enfermería de la Universidad Federal de Rio Grande que cursaron la referida disciplina. Fue utilizado instrumento auto aplicable con preguntas cerradas organizadas en Escala de Likert, enfocando tres categorías: objetivos de la disciplina, metodología de enseñanza y desempeño del profesor en el proceso de enseñanza-aprendizaje. Los datos fueron quantificados a través de análisis estadístico descriptivo. Resultados: Los 78 académicos abordaron la importancia de la disciplina para la actuación profesional y la relación teórico-práctica para un aprendizaje con calidad; hay necesidad de sus participaciones en la construcción de la metodología de enseñanza. Conclusión: La evaluación académica, importante instrumento de enseñanza, permite identificar acciones que puedan perfeccionar la formación y actuación profesional del enfermero, insertar al académico como corresponsable. Descriptores: Estudiantes de enfermería, Educación en enfermería, Salud laboral, Evaluación, Enfermería.
The practice of Nursing has its main focus on the care of individuals and social groups, gained gradually in the course of education, with a view to full health of the human being. Consequently, the materialization of health professionals to perform actions related to the promotion and protection of health is needed, reducing morbidity and mortality arising from productive actions employed in work. Accordingly, the nurse, in providing health care, begins to act in maintaining a safe and healthy work.

Thus, the undergraduate nursing courses need to reflect about the initial nursing education, since its teaching strategies become crucial for the formation of new professionals. Soon, with the advances in the world of work, the occupational risks become target of health care, demanding of nursing courses, the insertion of disciplines focused on this reality. To this end, the Political Pedagogical Projects (PPP) are optimized and adjusted to the needs of each educational institution, basing from the Law of Guidelines and Bases of National Education (LGB) No 9394/96.

By the reason of the socioeconomic reality of southern Brazil to present the expansion of investments and works at the Naval Complex, the Rio Grande city has become a place of intense demand for labor, a fact which focused on representation of health changes to workers'. As a result of reflexes in health in this context, the School of Nursing (EEEnf) of the Federal University of Rio Grande (FURG) sought to meet the demands and problems existing in the geographical area where it is inserted, directing its teaching activities, research and extension for growth of the region, to promote health in socio-cultural spaces. It was then idealized, in 2008, the discipline of Nursing Care in Occupational Health, which aims to understand the basic framework of the structure of human work and understand the foundations of the work as boosters of health, illness and injuries to humans and non-humans. It has mandatory character, semester length, total workload of 45 hours (three hours per week: two theoretical hours and one practical) and is available in the third semester of the course.

The apprehension to transform the process of constitution of nurses pass, therefore, by the collective context, i.e., by the needs expressed in society, thus seeking to encourage future professionals to acquire skills to act in creative, critical and ethical manner with the demands of human health. Accordingly, that discipline is connected with the theoretical issues of worker health, guided by the National Policy of Occupational Health of the Worker, by practical issues related to the recognition of the workplace and the actions performed in the Laboratory of Socio-Environmental Occupational Health (LASTRA). This space enables an approximation of the student with the care worker, against the theoretical and practical knowledge of specific equipment and instruments, as sound level meter, light meter and electromyography. Resources acquired by the teaching institution and that are
part of research studies and extension idealized by the research group of Laboratory Study of Socio-Environmental Processes and Production Public Health (LAMSA).

Based on these, is presented as guiding questions: ‘What is the evaluation of Nursing students about teaching and learning process of the discipline of Nursing Care in Occupational Health?’ And ‘How important is discipline for academic education?’ Thus, the following objectives are established: to identify how nursing students evaluate the teaching-learning process, used in the discipline of Nursing Care in Occupational Health and the importance of discipline for academic education.

**METHOD**

Descriptive and quantitative research, aimed at students of Eenf/FURG taking the discipline of Nursing Care in Occupational Health, in the period from 2009 until the first half of 2012, totaling 122 students. The choice of period is justified by evaluating the space of time that remained the same coordinator of the discipline, which is guiding of the study.

It were established as inclusion criteria: to be a student of Eenf/FURG, to have taken the discipline of Nursing Care in Occupational Health from 2009 to 2012 and agree to participate in the research from the Informed Consent Form (ICF). Exclusion criteria were: not having answered the three attempts send by email and not have answered the three attempts of personal contact via phone.

From the inclusion and exclusion criteria, 42 (34%) students were not included in the sample and two (1.6%) represented the number of refusals. Therefore, 78 (63.96%) students participated in the survey.

To data collection, an evaluation questionnaire was used, whose questions were answered using a Socio-psychological Measurement Scale of Likert. Three items were evaluated: 1- Objectives of the discipline (4 issues), 2- Teaching methodology (17 issues) and 3- Performance of the teacher in teaching and learning process (16 issues). For each question, the student pointed an acceptance level, by assigning values from 1 to 5 (1=strongly disagree, 2=partially disagree, 3=indifferent, 4=partially agree and 5=strongly agree). The thresholds of agreement were classified as: mean values close to 1 and 2: [disagreement or negative position]; mean values close to 3: [indifferent positioning] and mean values close to 4 and 5: [concordance, positive positioning].

It was calculated the Cronbach’s alpha, in order to assess the internal consistency of the scales for each category, presenting acceptable agreement between the instrument and the population of the study. Data collection was virtual, the questionnaire was developed through Google Doc’s Program and the access to the research instrument was made possible to the subjects by providing a link of the questionnaire to the address of each student. The data included the phone number of students, acquired under the authorization by the secretariat and the coordination of the School of Nursing.
RESULTS AND DISCUSSION

The sample consisted of 78 nursing students, as provided in Figure 1. Most students were female (67.8%; n=53) and age ranged from 19 to 38 years, with an average of 24.06 years.

Figure 1- Participants of the survey as year and ending semester of Nursing Course of the Federal University of Rio Grande, municipality of Rio Grande, 2012.

Extracted from: Dados originários da presente pesquisa.
Notas: *Atenf: Ano de término do Curso de Enfermagem.
Extracted from: Originating data from the present research.
Notes: *Atenf: Year of ending the Nursing Course.
Below, three categories are presented, that constituted the details of the found results, which show the level of acceptance of students participants of the research, about the objectives proposed by the study.

Category 1: Objectives of the discipline

The means of the answers to the four questions presented in this item are shown in great part as positive to the students, i.e., showed the concordance in relation to the characteristics of the objectives of the discipline. Regarding to the internal consistency of data, this category showed values of 0.80.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Average</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I know the objectives of the discipline.</td>
<td>4.0</td>
<td>0.96</td>
</tr>
<tr>
<td>2. The objectives of the discipline were discussed by the teacher at the classroom.</td>
<td>3.5</td>
<td>1.20</td>
</tr>
<tr>
<td>3. It was possible to realize the importance of the discipline for professional education.</td>
<td>3.8</td>
<td>1.24</td>
</tr>
<tr>
<td>4. The objectives were achieved.</td>
<td>3.1</td>
<td>1.17</td>
</tr>
</tbody>
</table>

Source: Originating data from the present research.

Category 2: Teaching methodology

In this item, heterogeneity was evident in the responses, i.e., most of the items represented the agreement of students, with averages close to four. However, questions regarding the given content, the evaluation and the manner of conducting the classes, presented averages close to 2 and 3, indicating indifference and disagreement of opinion. As for the internal consistency of the data, this category showed values of 0.92.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Average</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The methodology used by the discipline was appropriate for the proposed teaching.</td>
<td>2.6</td>
<td>1.23</td>
</tr>
<tr>
<td>2. There was participation of students in relation to the construction of teaching methodology and possible modification of the approach methods.</td>
<td>2.1</td>
<td>1.43</td>
</tr>
<tr>
<td>3. The addressed content covered made possible an understanding of the role of Nursing in different work environments.</td>
<td>3.7</td>
<td>1.20</td>
</tr>
<tr>
<td>4. From the content explored in class, Nursing contributes to worker health, intervening in many workplaces.</td>
<td>4.1</td>
<td>1.04</td>
</tr>
<tr>
<td>5. The method of content organization allowed its understanding.</td>
<td>3.1</td>
<td>1.16</td>
</tr>
<tr>
<td>6. The theoretical classes were attractive, easy to understand and clear language.</td>
<td>2.0</td>
<td>1.30</td>
</tr>
<tr>
<td>7. It was possible to understand the work process and its implications for human health.</td>
<td>3.5</td>
<td>1.00</td>
</tr>
<tr>
<td>8. Readings taken in the classroom were easy to understand.</td>
<td>2.6</td>
<td>1.33</td>
</tr>
</tbody>
</table>
understand.
9. It was possible to learn how the work process works and its relationship to the health of workers in the various practical fields. 3,4 1,10
10. Assessment instruments of discipline allowed the evaluation of my knowledge. 2,9 1,25
11. What was evaluated by the discipline was compatible with presented contents. 3,7 1,05
12. The theoretical classes facilitated the learning of practical classes. 3,1 1,29
13. It was possible to identify the factors that affect the quality of work life. 4,25 0,81
14. In practical classes, the students were motivated to build a plan of nursing actions learning to analyze the factors of the environment with potential risk. 3,8 1,23
15. The personal protective equipment used in practical classes were sufficient, enabling the use and adequate security for all students. 3,9 1,43
16. The students were encouraged to discuss the results and conclusion of the practical classes. 3,6 1,24
17. It was possible to relate theory to practice. 3,6 1,23

Source: Originating data from the present study.

Category 3: Performance of the teacher in the teaching-learning process

With respect to 16 affirmations directed to the evaluation of the teacher in the teaching-learning process obtained by the students, there were mostly indifferent opinions. Regarding to the internal consistency of the data, this category showed values of 0.92.

Table 3 - Level of acceptance of students of EEnf/FURG about the teacher performance in teaching and learning process, Rio Grande 2012.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Average</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The teaching plan (objectives, content, methodology, instruments, evaluation criteria and bibliography) was presented/discussed with the students.</td>
<td>3.6</td>
<td>1.26</td>
</tr>
<tr>
<td>2. It was allowed to the students to expose their opinion about the proposed methodology.</td>
<td>2.3</td>
<td>1.51</td>
</tr>
<tr>
<td>3. I am/I was in accordance with all aspects of the teaching plan.</td>
<td>2.7</td>
<td>1.36</td>
</tr>
<tr>
<td>4. The process of learning assessment was coherent with the objectives of the discipline.</td>
<td>3.3</td>
<td>1.14</td>
</tr>
<tr>
<td>5. There is/was a good relationship between the student and teacher, facilitating the process of teaching/learning.</td>
<td>3.1</td>
<td>1.57</td>
</tr>
<tr>
<td>6. The students were encouraged to express their ideas individually in the classroom, participating/discussing matters of the discipline.</td>
<td>3.2</td>
<td>1.38</td>
</tr>
<tr>
<td>7. The students were motivated to interact in groups in the classroom, participating and discussing matters relating to the discipline, allowing to expose their ideas.</td>
<td>3.5</td>
<td>1.26</td>
</tr>
<tr>
<td>8. The teacher who teaches/taught classes, demonstrated mastery over the content taught in the classroom.</td>
<td>3.7</td>
<td>1.32</td>
</tr>
<tr>
<td>9. The teacher who teaches/taught classes, was available to answer questions that arose in the classroom.</td>
<td>3.9</td>
<td>1.35</td>
</tr>
<tr>
<td>10. The teacher who teaches/taught classes, establish/established interaction between theory and practice and/or aspects of reality.</td>
<td>3.6</td>
<td>1.27</td>
</tr>
<tr>
<td>11. The teacher who teaches/taught classes deals the students with respect, was demanding appropriately, accept criticism, opinions and suggestions.</td>
<td>3.4</td>
<td>1.49</td>
</tr>
<tr>
<td>12. The teacher shows available to meet the needs of students interested in solving problems related to the discipline.</td>
<td>3.1</td>
<td>1.48</td>
</tr>
<tr>
<td>13. The teacher was accessible/available for</td>
<td>3.3</td>
<td>1.43</td>
</tr>
</tbody>
</table>
The results allowed to visualize the placement of nursing students regarding the constitution of the discipline, permeating the understanding about the process of teaching-learning and its importance to their education; for this, identifying issues relating to objectives, methodology and performance of the teacher. The analysis of item ‘Objectives of the discipline’ presented in a positive way, the importance of knowledge and discussion of objectives between teachers and students, thus highlighting the approach to health worker by the discipline, in the professional education.

It must be made clear to the students, the effects of work on human health and, accordingly, to act pedagogically against the objectives previously determined for both, in order to evidence the role of Nursing in workspaces, through health education activities for promotion, prevention and rehabilitation, providing that the employee assumes a safe attitude towards their work, reducing and preventing accidents and occupational diseases. Thus, the alignment of the objectives of the discipline is visualized, to the reference base that guides it, enabling improvements in apprehension of the content.

In this context, it is necessary that the teacher is always innovating their teaching proposals, especially with changing and diverse environmental characteristics of the work process. Thus, the discipline proposes the use of teaching methodologies that approximate the student of different working environments, offering theoretical and methodological contents that promote improvements in environmental and health conditions in these areas, encouraging the students to be responsible for health care in these environments.
The student needs to be involved in the construction of their own learning, with the objective of acquiring satisfactory theoretical and practical knowledge to work in primary and secondary prevention in health. The insertion of the student in developing educational and investigative strategies directed to the employee, favors early diagnosis of occupational diseases, to perform treatment and appropriate accompaniment, improving the quality of life of workers and reducing the rate of absences from work. Also contributes to involvement in the academic planning of pedagogical actions and its accountability as part of a group, where the focus is on health and work.

Another important aspect shown in the evaluation of students is that, even with difficulties in understanding the contents, there was a stimulation in the articulation of theory and practice. The introduction of the students in the fields of learning exercise reflects aspects of the reality of the population, detecting and analyzing the different risks factors, in order to plan and execute actions that enable the control and elimination of diseases.

It is recommended greater reflection toward theory, requiring critical thinking and the ability of autonomy of students. Because, to permit the construction of a critical, active and reflective attitude is one of the goals to be considered in the development of a discipline, because it will be the knowledge, skills, values and skills that will be used for the benefit of the health of students and workers.

It is also worth mentioning the evaluation process used in the discipline, which constituted an important tool in identifying the progress of learning. The teacher needs to know what to evaluate, when and how to evaluate, establishing criteria consistent with the reality of teaching proposal, maintaining a horizontal relationship with students.

With respect to item ‘Performance teacher in the teaching-learning process’, it was highlighted the indifferent positioning of students related to interaction/communication between teacher and student, considering questions related to teaching plan, assessment and practical classes. Effective communication between teacher and student is essential to enable the exchange of knowledge and solution of questions relating to the purpose and themes in the discipline, facilitating student learning.

On issues concerning the theoretical and practical knowledge of the teacher, we obtained higher averages, indicating good performance of teachers, which need to have skills and experiences that enable professionals to relate the process of working with potential occupational health problems. Thus, the teacher brings practical examples of their professional experiences to the classroom, constructing and reconstructing teaching methodologies that address the needs of workers and students.

When teaching about the health of the worker, the teacher requires students to pass the health promotion strategies to particular occupations, enabling the student to visualize the social context and dealing with unexpected issues, reflecting on the weaknesses presented in reality versus the knowledge acquired in their academic education. Thus, the teacher needs to meet the demands expressed by students, worrying about their pedagogical action to teach, to encourage the student to think and act properly to make Nursing care.

When considering the current labor conjecture of the municipality where the University is located, one ponders that discipline leads the student to known working
scenarios of their context, such as ship and port area, which presents significant growth in the number of workers. Action that seeks to facilitate the necessary education to professional practice. It is noteworthy that the mobilization for this sector relies on the presence of various occupational risks, considering the degree of unhealthy and dangerous to the health of these workers, thus becoming an important field of study.21

Encourage participation from the academic to the health of the worker contributes to the maintenance of health care. To this end, the proposals set out in the teaching plan, the evaluations, the theoretical and practical classes, need to propose the construction of knowledge in an interesting and committed with full academic education. Thus, it will be motivating for academic to work and contribute in the process of teaching and learning, encouraging them to research in this area. In addition to promoting the creation of a knowledge capable of modifying labor13 and academic realities.

CONCLUSION

The discipline in question walks to meet the quality of the teaching-learning process, since students considered it important for their professional education, stressing that a different field for the actions. Its importance also focuses on the valuation of environmental and sociocultural characteristics of the municipality in which it operates, providing the exchange of experiences and opinions, enriching learning and theory-practice relationship with aspects of reality.

Regarding the assessment of the discipline by students, they highlighted the importance of encouraging their participation in the planning of methodological discipline, meeting the expectations of students and teachers involved. Therefore, it was suggested to expand the dialogue among the teachers who have ministered to the discipline in question, so that difficulties and strengths to become the starting point for future planning inherent in the teaching plan. Nevertheless, one should remember that teaching involves research, action devised by the present work, that sought, together with students, to identify actions that could enhance the act of improving for future occupational health nurses.

Due to the rise of nursing work in various educational settings and, worrying about the health of the worker, it seeks to arouse interest in students as to the ways to apprehend about this field, promoting spaces of autonomy for evaluation and building consistent learning coherent to the region, the population and the existing physical and pedagogical resources.

The limitations of the study, presents the difficulty in obtaining the participation of all students taking this discipline, and the fact that the study was conducted with a group of students from a single institution. This suggests the need to expand the research, analyzing the development of the discipline in different institutions, comparing the different approaches to teaching.
REFERENCES


Assuming the document is in Portuguese, here is the plain text representation:


21. Freitas CMS, Passos JP. O risco ocupacional e a saúde do trabalhador. Rev pesqui cuid fundam (Online) [periódico na Internet]. 2010 [acesso em 2013 Out 15];out/dez. 2(Ed.
Borges AM, Silva DF, Almeida MCV et al. Evaluation of teaching...

Supl.):68-72. Disponível em:

Received on: 07/12/2013
Required for review: No
Approved on: 25/04/2014
Published on: 01/10/2014

Contact of the corresponding author:
Anelise Miritz Borges
Rua General Osório, 1291 B, Apartamento 41, Centro. CEP: 96020-000. Pelotas (RS). Brasil. E-mail: miritzenfermeira@yahoo.com.br