Live Methodologies for Using in Child and Teen Health Nursing Discipline

REVIEW

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Abstract

Purpose: This study aimed to investigate the use of active methodologies in child health and adolescents education in undergraduate Nursing.

Methods: This was a qualitative, documentary study, based on secondary sources, from reflections of Higher Education Methodology discipline of the Academic Master in Nursing of Universidade Regional do Cariri. The evaluation took place in two stages: first, we applied a structured form for didactic and pedagogical verification built by the master teachers; later, we evaluated the schedule according to Bloom's taxonomy in the cognitive domain.

Results: It was noticed that the menu, order and student's evaluation were supported by a teaching plan according to the traditional model.

Conclusion: It was suggested that active methodologies were used to stimulate critical and reflective thinking of students.

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Introduction

Reflecting on education in the Nursing undergraduation course means the challenge of understanding the different realities in which the educational process takes place. Rethinking the formation in this area became a demand, given the contemporary challenges associated with economic, political, social and cultural transformations. The focus is to clarify the educational proposals that have been recently developed, as well as their pedagogical objectives and results [1, 2].

Keywords

Education; Nursing;
Educational measurement;
Teaching; Learning.

Gomeset al. [3] consider the theory of significant learning an educational proposal, in which a piece of information acquires meaning through the mobilization of student's previous knowledge, thus promoting the replacement of teaching that is limited to knowledge transmission with an educational process that offers knowledge construction, using active methodologies, and analysis of social practice situations.

Sobral and Campos [4] state that active methodology is an educational model characterized by the inclusion of students in their learning process, supported in a logic that involves and makes them become responsible for what is being learned through a critical and reflexive perspective. This method contrasts with the traditional ones because it is student-centered, therefore he/she faces the challenge of working with real issues, assuming responsibilities and interacting with the population and other professionals. In this process, students develop their own knowledge instead of receiving it completed, and they actively establish a speech based on new teaching and learning methodologies [5].

We must choose a pedagogical practice to extend the concept of care, to comprehend that theory and practice are inseparable and to create an alliance between the individual and the collective. It is worth noting the relevance of active methodologies in the development of competencies [6].

The competency, in an extended idea, articulates and integrates results to the characteristics of the apprentice in some practice contexts, in an action-reflection-action movement. Students should recognize them in the clinical practice and apply them through concrete actions of care [6,7].

With regard to competency-based teaching, a way of standardizing the teaching objectives is through Bloom's taxonomy, according to which they should be described from the association of standardized verbs in learning levels [8]. Krathwohl [9] emphasizes that taxonomy is comprised of

six levels: remembering, understanding, applying, analyzing, evaluating, and creating.

In Brazil, Nursing courses lack experiences in the use of teaching-learning processes directed to student's critical reflection, thus incorporating active methodologies and competency-based teaching. They should be included in the teaching plan, proposed contents and activities, teaching methodology, and bibliography. Students should also know about those criteria whose evaluation before school year activities would be based on [10].

We aimed at reflecting on and investigating the use of active methodologies in the context of Nursing undergraduation formation and verifying the educational plan based on competencies and on Bloom's taxonomy.

Methodology

This is a qualitative and documentary study with secondary sources. A didactical and pedagogical structured form was used as an instrument for data collection, which assessed two official documents of a public university in Ceará State countryside. One of them was the teaching plan and the other was the schedule of Children and Adolescent's Health discipline that acted as guiding elements of this study. This discipline was chosen because it is situated in the beginning of the professionalizing cycle and in the end of the basic cycle.

The study was conducted from May to August 2014, in the Higher Education Methodology discipline of the Master's Degree course in Nursing that developed, throughout the semester, teaching-learning activities based on active methodologies.

Data analysis was conducted following the study of Nursing Curricular Guidelines, as well as official documents and scientific literature.

The educational process evaluation happened in two stages. In the first, data were collected and analyzed based on a structured form of didactic-

Chart 1. Didactical and pedagogical structured form.

Does the discipline have a syllabus?	() Yes () No
Are the competencies related in the learning goals?	() Yes () No
Do the described contents follow the objectives proposed in the discipline?	() Yes () No
Are the teaching strategies related in the teaching plan?	() Yes () No
Do the teaching plans include the available resources in the university?	() Yes () No
Does the teaching plan describe the evaluation process?	() Yes () No
Does the professor evaluation consider the student's evolution throughout the semester?	() Yes () No
Are the evaluation criteria described in the plan?	() Yes () No
Is a bibliography mentioned in the teaching plan?	() Yes () No
Does the basic bibliography recommended by the professor have at maximum 5 indications based on ABNT standards?	() Yes () No
Is the literature current? Does it include at least the 5 last years?	() Yes () No
Is this bibliography of easy access?	() Yes () No

cal-pedagogical verification built by Master's professors (**Chart 1**), in order to evaluate if the teaching plan of such discipline discussed the use of active methodologies, seeking the answer to the following guiding questions: Does the pedagogical proposal include active methodologies? What active methodologies were used? What learning goals of the discipline were achieved for these methodologies?

The second stage included the schedule evaluation according to Bloom's taxonomy composed of the description of objectives evaluated by competencies [11]. The hierarchical classification of the cognitive processes is divided into six levels of complexity (since recollection of real information to more complex levels of problem resolution and decision taking). For each category of this taxonomy, a list of related verbs is exhibited, which must be used as a support to the systematic planning of the course and/or disciplines in the structuration of their objectives, strategies and evaluations [12, 13].

Three domains are used in taxonomy: cognitive, affective and psychomotor. We highlighted the cognitive domain that included five categories: knowled-

ge, comprehension, use, analysis and synthesis. For each one, there are subcategories and verbs in the infinitive [11].

Data were organized in two categories in the abovementioned stages and they were analyzed through students' critical reflections and scientific literature.

The present study satisfied the requirements of guidelines and standards that regulate research involving human beings, present in Resolution 466/12 of the Brazilian Health Council, which has four basic bioethics references: autonomy, non-maleficence, beneficence and justice [14].

In agreement with ethical and legal aspects, this analyzed and published document was released by the coordination of the Nursing course through signature of the trustee term.

Results

Chart 2 shows the structure of the discipline teaching plan, including the syllabus, pragmatic content, objective, teaching strategy, didactic resources used, evaluation methods, and basic bibliography.

Chart 2. Structure of the discipline teaching plan.

Current syllabus	The normal and high-risk newborn; use of the scientific method of Nursing assistance; Nursing assistance to healthy children and adolescents; basic rules in the study of child's growth and development; the child with clinical, surgical and infectious common pathologies; systematization of Nursing assistance; social and family problematics of the child and adolescent in the Nursing approach
Pragmatic content	Newborn: normal newborn; newborn's abnormalities and pathologies and breastfeeding Full assistance to the child and adolescent; child's growth and development; immunization The child with a pathology. Clinical and surgical aspects; the hospitalized child Nursing assistance to the adolescent; nursing assistance in pediatric urgency and emergency situations
Objective	To offer theoretical and practical support to students with regard to the systematization of Nursing assistance to the child and adolescent in clinical, surgical and infectious situations
Teaching strategy	Participative exhibition, seminars, classes, theoretical and practical evaluations
Didactical resources used	Multimedia projector, overhead projector, paper, transparency, child and adolescent's vaccination book, vaccines, syringes, and antiseptics material
Evaluation method	Four written tests; stage field technique
Basic bibliography	It includes 11 references, only 3 of the last 5 years. The others were from the years of 1987 to 1999. Complementary bibliography between the years of 1985 to 1996. Of easy access, available in the library

Chart 3. Schedule of the discipline according to categorization of Bloom's taxonomy cognitive domain.

Cognitive domain – used verbs	Amount of used verbs	Applied verbs
Knowledge	30	To describe, to distinguish, to recognize and to relate
Comprehension	11	To describe, to classify, to report and to comprehend
Use	22	To sketch, to operate, to develop and to contextualize
Analysis	9	To classify, to compare, to distinguish, to calculate and to discuss
Synthesis	15	To elaborate, to generalize, to structure, to organize, to systematize, to relate and to formulate
Evaluation	11	To justify, to report, to review and to compare

Source: Ferraz and Belhot [11].

In the schedule evaluation, following Bloom's taxonomy model, most of the verbs were seen in the infinitive form and belonging to more than one cognitive domain. The competencies indicated in the schedule did not include all the pragmatic contents showed in the syllabus. The verbs were divided according to **Chart 3**.

Discussion

A nurse with a good formation comes from institutions where professors have, among other attributes, skills to develop teaching-learning programs [15]. It is seen that the presented syllabus covers, mostly, the traditional teaching model according to which students are instructed and skilled for the professional practice, based on the division of pragmatic contents [3].

Chart 4. Syllabus suggestion based on Bloom's taxonomy through the cognitive domain classification.

Suggested syllabus	Bloom's cognitive domain
To distinguish attributions of the pediatric nurse in the promotion of child's health	Analysis
To comprehend normal and high-risk newborn's characteristics	Comprehension
To develop a scientific methodology of Nursing assistance	Use
To systematize Nursing assistance to the healthy child and adolescent	Synthesis
To know the basic rules in the study of child's growth and development	Knowledge
To comprehend the care of a child with the most common clinical, surgical and infectious pathologies in our area	Comprehension
To recognize the social problematics that involve the child and adolescent's family	Knowledge
To perform Nursing assistance before the psychical suffering in childhood	Synthesis
To relate the breastfeeding and Nursing assistance advantages to the newborn	Synthesis
To develop Nursing interventions in the entire child's health-disease process	Use

Competency is relevant in the professional formation context. In a dialogical conception, it focuses on the development of psychomotor and/or affective intellectual skills or propriety, which, when articulated, might result in different ways of successfully performing essential actions and characteristics of a certain professional practice [16].

The syllabus does not present the competencies indicated in the teaching plan. It could be described in the model of competencies, as shown in **Chart 4**.

It is seen that the general objective of the discipline is included in the syllabus and related contents. However, literature points out that the learning goals should mention what the academic is able of knowing, doing and being to complete them in the established learning-teaching period with success. A well-prepared objective should be active, attractive, comprehensible, appropriate, achievable, evaluable, and visible [13]. Thus, the objectives should also be reviewed in order to be clearer with regard to what is intended to achieve from the student.

We cannot educate without apprehending planning mechanisms including objectives that contribute to the elaboration of syllabuses, programs and methodologies and evaluations that are able of ensuring success in the teaching-learning process [17].

With regard to teaching strategies, although it has participative exhibitions and seminars, we cannot conclude they are based on active methodologies. In addition, the strategies used are only mentioned in the teaching plan; however, they do not show a description of how they should be applied.

As to the teaching-learning process and its evaluation, active methodologies are not its basis. We recommend that the evaluative method is not based only on the somatic form. By means of analysis, probably, there are not discussions in small groups and students are not instigated by the resolution of problems from the reality in which they are inserted. It is known this type of formation is on a changing process, since the learning evaluation is not anymore understood as an act of measuring the performance, thus it is considered an instrument that might stimulate and motivate the learning process [18].

The absence of evaluation method description at stage field in the discipline plan did not allow the identification of what kind of evaluation was conducted.

The evaluation can be performed in different moments in the teaching-learning process. The professor can identify previous knowledge of the students

in the beginning of the course; or somatically, by trying to find the competencies that were acquired by students in the end of the process; and lastly by using the formative evaluation, which is focused on the students' cognitive processes and associated with feedback processes [19].

Teaching construction based on competencies helps the development of critical thinking in the reality to seek the integration of theory to practice. For the development of a competency-integrated and guided curriculum, professors must be prepared for using active methodologies skillfully, to provide resolution in health care situations [7]. This is the need pointed out in the assessment conducted in the evaluated discipline plan.

The indicated bibliography calculates minimum amounts of three titles for the basic bibliography, and the titles should be updated, mostly, about the last 3 years [20].

The schedule includes, in general, Bloom's taxonomy that allows standardizing language in the academic area and intends to facilitate the exchange of information on the curricular developments (what to teach) and evaluation plans (what to measure) [11, 17].

Final Considerations

The discipline plan and schedule evaluation does not present the strategies used based on competencies, it is restricted to teaching traditional forms and it does not clarify on how knowledge, skills and attitudes are contemplated.

Thus, we recommended that the discipline plan should be reviewed in order to clarify on how the active methodologies are used and covered in the classroom. We should highlight the need of associating competency-based teaching with differentiated strategies of formative and participative evaluation.

Furthermore, students' evaluative process should be based on their evolution, thus it would go beyond the role of measuring knowledge and skills

and it would assume a knowledge construction character. Hence, professors should use a formative evaluation and provide a needed feedback so that the student knows his/her failures and progresses. It is relevant to establish evaluative criteria, thus, the professor should be aware of them; however, this was not found in the discipline plan.

We need a new act way on how to educate. One that values the students in the knowledge construction process and considering their previous knowledge. We suggest that active methodologies of teaching be used in the evaluated discipline plans through problem solutions, among other dynamic strategies that stimulate students' critical and reflexive thinking.

Conflict of interest

Although some authors were professors in the Higher Education Institution where we collected data for this study, neither of them worked with the evaluated subject.

Collaborations

Rocha RMGS, Santos AS and Brito LSA contributed to data development, analysis and interpretation, and article writing. Lopes MSV, Maia ER, Machado MFAS, Viana MCA and Almeida VCF contributed to the development and project, article writing, data interpretation evaluation, relevant critical review of the intellectual content and final approval of the version to be published. Sousa IC and Gonçalves Junior J contributed to the final article writing, text organization, and manuscript submission.

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