

Competency-based curriculum from the perspective of undergraduate nursing students



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ABSTRACT

Objective: analyze the curriculum by competencies from nursing graduates. **Methods:** This is a descriptive research with a qualitative approach, carried out with undergraduate nursing students at a public university in the state of Pernambuco-Brazil. For data collection, a questionnaire with discursive questions was used. The speeches were analyzed according to Bardin's content analysis technique (2016). **Results:** After analyzing the data, three thematic categories emerged, namely: curriculum by competence, assessment, competences, and skills. We can highlight as a positive point evidenced in the study, the curriculum proposal, the development of competences and skills and involvement of academics in extracurricular activities. As some points that need improvement, we can emphasize, the evaluation method, the theoretical / practical relationship, organization of time and adaptation of the teacher. **Conclusion:** The results from this study, allowed to evaluate the students' knowledge about the integrated curriculum and to analyze its applicability in the educational institution, considering its strengths and weaknesses.

Keywords: Nursing Education, Higher Education, Nursing Students, Qualitative Research, Competency-based education.

1 INTRODUCTION

Professional nursing in Brazil began in 1923, marked by an initial historical context of teaching that envisaged education centered only on the disease, with a predominance of the medical-hospital model in undergraduate education. Despite some changes that occurred over the years in the curricular structure of the nursing course, which reflected the changes in the Brazilian historical-social context, it was still based on the hospital-centered model¹⁻³.

In the 1990s, an articulation began between the Brazilian Nursing Association (ABEn), professional associations, and health and teaching institutions to formulate a new curricular proposal, highlighting a holistic education and the necessary condition for students to develop skills to act in



four areas: care, management, teaching, and research⁴.

On the other hand, the enactment of the Law of Guidelines and Bases of National Education (LDB) No. 9,394 of December 20, 19965, sought to restructure and organize national education in all its modalities, levels of education and teaching, from basic education, through professional and technological education, special education to higher education⁶. Among the requirements for higher education, the LDB highlights generalist professional training and proposes, among other measures, the replacement of minimum curricula by the incorporation of specific curricular guidelines for each course⁷.

The curricular guidelines of the undergraduate course in Nursing (DCNs/ENF) guided by Resolution No. 3/20018 at the time of the present study, were updated by Resolution 573/20189, and maintained many of its principles and have as one of its foundations, a Pedagogical Course Project (PPC) created, collectively, contemplating contents indispensable to education, integral human formation, interdisciplinary, association between theory and practice, inseparability between teaching, research and extension/care, among other aspects.

This training perspective envisions a competency-oriented curriculum, which has been a frequent option in the attempt to incorporate the DCNs into the PPC, according to Oliveira and Cutolo¹⁰, and is based on the possibility of dissolving the opposition between theory and practice, in a teaching that contemplates the contextualization of knowledge, in the problematization and association between teaching, service and community. Therefore, it consists of a favorable method for the professional training of a graduate capable of working in the Unified Health System.

In the integrated curriculum, the disciplines are related to each other, assuming an interdisciplinary aspect. Knowledge has become the main objective, where education supersedes information¹¹. Many positive points can be observed in the integrated curriculum, which aims to meet the DCNs/NFE, but, like any teaching-learning method, it also has weaknesses.

In an attempt to adopt strategies to know the potentialities and weaknesses of the implementation of the curriculum in practice, it was decided to know the opinion of those who experience the organization of this teaching method on a daily basis. The student of the course, as a parameter to identify the points that need to be readjusted and rectify and expand those that are already on the right track, will contribute to the improvement of the modular teaching structure, in addition to offering subsidies for the training of the faculty. Thus, the general objective of the study was to analyze the curriculum by competencies from the perspective of undergraduate nursing students.

2 METHOD

This is a descriptive study with a qualitative approach. The study was carried out in a public and state Higher Education Institution (HEI) that offers undergraduate courses in nursing, located in



the city of Recife, Pernambuco, Brazil. The Pedagogical Project of the Course, divides the graduation into 10 modules, each module in a semester, totaling 5 years of full-time duration.

Students from the following periods participated in the research: 2nd, 4th, 5th, 6th and 9th. The inclusion criteria were as follows: students who studied at the college and who entered after the implementation of the new curriculum. Exclusion criteria were: students absent during the data collection period.

Data collection was carried out in November 2015, during which time the students were approached individually during the interval where the research was explained and the questionnaire and consent forms were delivered to those students who wished to participate.

The instrument used for data collection was a questionnaire previously prepared by the researchers with questions for qualitative analysis. The questionnaire contained two discursive questions. The first one aimed to find out the student's understanding of the integrated curriculum, with the following question: *"What do you mean by competency-based curriculum?"* The second question had the purpose of knowing the student's opinion about the positive and negative points of the integrated curriculum, with the following question: *"What is your opinion about the competency-based curriculum? (Free space for comments, criticism and suggestions)"*.

The sample size was established according to the criterion of data saturation, which totaled 37 students. The data were collected, transcribed and recorded in a standardized form in Microsoft Word 2007 and analyzed by means of Content Analysis of Bardin¹². As phases of content analysis are organized around three chronological poles: the pre-analysis and exploration of the material, the treatment of the results, the inference and the interpretation¹².

This study was submitted to the Research Ethics Committee of the HUOC/PROCAPE-UPE Hospital Complex, and was approved with Opinion No. 675,330 in compliance with Resolution 466/12 of the National Health Council (CNS). Out of respect for ethics in research with human beings, participants were guaranteed total confidentiality of all information that could identify them during and after the research.

In addition, data collection was initiated only after obtaining the favorable opinion of the CEP, and during data collection only those adult participants who signed the informed consent form and minors who brought the informed consent form signed by their guardian and who signed the TALE during data collection were included. To ensure the anonymity of the participants, they were identified by the letter R, which refers to respondents followed by the Arabic number in the order of the transcription.



3 FINDINGS

A total of 37 nursing students participated in the sample. As a result of the content analysis, 03 thematic categories emerged, namely: 1 - Curriculum by competencies; 2 - Evaluation; 3 - Competencies and skills.

3.1 THEMATIC CATEGORY - 1: COMPETENCY-BASED CURRICULUM

In the statements below, the students present their perceptions about the competency-based curriculum, making it clear that they were able to glimpse one of the main characteristics of the integrated curriculum, which is interdisciplinarity.

- "Competency-based curriculum is the redefinition of the meaning of teaching content, in order to give practical meaning to knowledge". R1
- "Where several subjects are separated for students, gathered in a single module. In such a way that the subjects are interconnected." R2
- "It is a new curricular structure, which seeks to integrate the disciplines for a better understanding of the students." R3
- "It is a new curriculum that aims to integrate the contents so that there is a better understanding for the student." R4

3.2 THEMATIC CATEGORY 2 - EVALUATION

Regarding evaluation, it was possible to identify that the competency-based curriculum still undergoes adjustments to build a continuous and contextualized evaluation process, as can be evidenced in the following statements.

- "A curriculum where the thematic units do not have separate assessment, but together. This way the student does not separate a unit, but can fail the entire module." R8
- "In general, the competency-based curriculum has a good ideology, but it is quite flawed. The method of assessment is inadequate for what we learn. The races should be separated by chairs. IP as a valuation method leaves a lot to be desired." R28
- "I think it's very good, the negative side I see are the integrated tests that in my view do not evaluate effectively, since it studies a large number of subjects for a single test and often does not cover all the thematic units. In addition, I believe that the student does not get a qualified study due to the range of subjects per IP." R39

3.3 THEMATIC CATEGORY 3- COMPETENCIES AND SKILLS

In the statements below, the students recognize that the course, by adopting the integrated curriculum, contemplates the curricular guidelines, when it emphasizes the development of the student's competencies and skills, during the course of the graduation, favoring the construction of a graduate able to deal with the various situations that arise during their professional practice.

- "Curriculum that highlights professional skills and abilities, where it is related to practice with theoretical knowledge". R17
- "Curriculum that covers the competencies, Child Health module, which is related to the child". R20



3.4 HOLISTIC VIEW

Nursing education is based on the process of caring for human beings, so a holistic view is considered. Once again, the importance of interdisciplinarity can be observed in the students' discourses, which, by integrating the contents, contributes to a holistic view of the patient.

"A curriculum that aims to see the patient in a holistic view and not shared when it was by chairs. In which it was studied by subjects, e.g.: anatomy, mycology, histology. Breaking the patient into blocks. The integrated curriculum, on the other hand, aims to train future professionals to see the patient not only in a part, but in a whole, as it will be in professional practice." R21

"It is an innovation in academic content, which is intended to associate the disciplines taught during the course, and which will contribute to a more complete and effective learning for the professional future. In this way, there is an academic training with a more holistic look." R25

3.5 EXTRACURRICULAR ACTIVITIES

Extracurricular activities are necessary for the completion of the undergraduate course and enable the student to experience extra-classroom activities, contributing to a more robust education that contemplates the Pedagogical Project of the Course and, consequently, the DCNs, by envisioning the teaching-research-extension tripod and the importance of complementary activities8-9.

"A curriculum that puts everything you did during graduation, including courses, short courses, lectures, congresses and extracurricular internships, as well as extension and research projects". R26

3.6 GREEN HOUR

The "Green Hour" is a term used by the college to refer to the free time that is made available to students to carry out other activities, whether personal or academic. The PPC includes free hours for study and activities such as research, university extension and courses that can contribute to student training.

It can be seen in the discourses below that the students claim that the free hours are not respected, which hurts the PPC, showing that the same does not happen totally in practice.

"I think there are a lot of gaps to be adjusted. A different look at the student, in which real opportunities were offered and not just observational. Or, for example, a module in which the green hour is preserved, the student has a life outside of college as well. A lot of things still harm the student and hinder their education." R30

"Which is a curriculum with integrated periods with several thematic units. With classes in the morning and afternoon and with few green hours." R12

3.7 THEORY/PRACTICE

The theoretical/practical integration is one of the main characteristics of the competency-based curriculum, however, it represents a challenge in nursing education in the institution, since the fields used for such purposes present difficulties due to the health situation in the country with few



investments for health, in addition to being observed in the statements of the students, the need to create strategies for organizing the modules in such a way that they can occur to praxis.

We can see in the discourses below that praxis is hindered at times.

"Effectively relate theory to practice. In which the practice rotations (internships) sometimes do not match the thematic unit studied. For example, the practice in rooming-in, about the puerperium ended and it was only a week later that we had the class on physiology of the puerperium." R31

"I think it's very good, but there are skills that can be more addressed and others added. I think that the division of modules ends up excluding some populations such as indigenous, black, etc. that end up not being addressed in the undergraduate program." R37

3.8 TIME AVAILABILITY

The time to perform other activities as well as to take care of their health has been a challenge in the training of nurses, since the dynamics in practical and theoretical classes demand a lot of time, causing free time to be reduced.

"College consumes all of our time. We don't have time to contemplate all the subjects, because they often do a lot of seminars, few green hours, classes that could be taught in just one shift. In practice, we often go unprepared, because we have not yet seen the subject present in practice." R32

"Heavy workload: We don't have time to take extra and enriching courses because our time is short to handle classes, practices, seminars, etc. Poorly planned practicums: Students have no technical preparation in the practice room at the college {...} They encourage students to go to conferences, seminars, etc., without knowing how to "justify" or "excuse" the faults they have committed." R33

3.9 TEACHERS

The faculty of an institution, even with the necessary degree, needs a continuous didactic-pedagogical training to develop its activities in a way that can keep up with the changes that occur constantly and with the passage of time, it is possible to detach from old teaching-learning processes, which was represented as a difficulty of the faculty, as can be observed in the speech of the academic, down:

"The curriculum proposal is extremely timely, now that the process of implementing it should be evaluated, because the curriculum allows for misinterpretations, as is currently the case. Where the methodology applied does not match the proposal preached. This problem is rooted in the old ideas of most teachers." R3

4 DISCUSSION

Through this study, it was possible to visualize what nursing students conceive by integrated curriculum, and it was possible to observe that their discourses are close to the real meaning of the curriculum, and the need for reflections for a greater conceptual deepening can also be perceived.



The elaboration of the integrated curriculum that works on competencies, guided by the DCNs, in addition to other objectives, aims at the early insertion of the student in the practice scenarios, through specific programs. This process provides an opportunity for a better articulation between teaching, service and community, promoting the student's first contacts with the singular and plural challenges of the profession in order to make him more apt to develop essential competencies and skills in the field of the labor market¹³.

The competency-based curriculum proposes to dilute the dichotomy between theory and practice; it promotes teaching based on contextualization and problematization, contemplating the teaching-research-extension tripod in its theoretical-practical articulation, in the integration of teaching and service with social participation and the diversification of teaching scenarios, structured in an interdisciplinary way, favoring the understanding and union of diverse knowledge^{8-9,14-15}.

Knowledge has become the main objective and the disciplines are no longer isolated¹¹, separated by "chairs". By proposing the articulation between the contents, which characterizes interdisciplinarity, it is possible to build a critical-reflective thinking, a holistic view, which associated with practice, can be glimpsed a more complete learning, which contributes to the construction of knowledge.

The students expressed their criticism about the implementation of the integrated curriculum, which brings a very effective teaching-learning proposal, as long as it is well planned and practiced in all aspects. With this, it was possible to observe that it is precisely in the implementation of the curriculum that the main challenge lies.

With regard to the "evaluation" item, we observed the students' dissatisfaction and non-adaptation to the integrated curriculum, which suggests an interdisciplinary format. In this regard, there was divergence in what was evidenced in the study by Pascom, Otrenti, Mira¹⁶, which sought, among other aspects, to evaluate the perception of nursing students regarding evaluation in active methodologies. The study was carried out in the Nursing course of the Pontifical Catholic University of São Paulo (PUCSP), which has as its main characteristic, an integrated curriculum that uses Problem-Based Learning (PBL) as a learning strategy, in which a progression test was specifically evaluated, obtaining good evaluations from students, with only some criticisms related to the length of the test.

In the integrated curriculum, the evaluations of nursing students should be based on the knowledge, skills, attitudes and values necessary for the specificities of the scenarios related to the contents worked, with reference to the DCNs/NFS, through diversified instruments that enable the formative evaluation of the student's progression throughout the course, allowing the monitoring of the development of competencies. skills and achievement of technical-scientific autonomy during training⁸⁻⁹.



It is the responsibility of the coordination of each institution, together with the faculty, to analyze the best methods and assessment instruments for learning for students¹⁷. In this way, based on the dialogue between the academic community, attentive listening to the students' complaints, it will be possible to better plan and improve the evaluation process, structuring it in a way that meets the DCNs/ENF and the students' individualities.

With regard to the issue of competencies and skills, we observed positive points, which corroborates a study that was not conducted with nursing students, but with graduates. In a study¹⁸ conducted with graduates of the Nursing course at the State University of Londrina (UEL), with an integrated curriculum since 2000, it was shown that about 52.2% of the participants highlighted the proactive posture in the search for knowledge, communication, autonomy and critical and clinical reasoning, showing a positive point of the curriculum regarding collaboration for the development of competencies and skills.

Still dealing with the development of skills and competencies, it was evidenced in the study by Dalcól, Guaranhani, Fonseca, Carvalho¹⁹, carried out in a nursing course of a public university in southern Brazil that has been using the Integrated Curriculum for 15 years, that the teaching-learning process of communication in the perception of the students of the Integrated Curriculum is occurring in a transversal way, through active strategies and methodologies, however, it needs adjustments.

"Competencies" are understood as a universe of skills, knowledge, attitudes and values that are interdependent on each other and necessary for the execution of actions, with the purpose of efficient performance in the exercise of professional activity²⁰⁻²¹.

In health courses, specifically in nursing education, competencies go beyond psychomotor skills, expanding to the development of cognitive, emotional and social skills that are aimed at decision-making and problem-solving in the various problems encountered in the day-to-day of health services²⁰⁻²².

Regarding the correlation between theory and practice, as seen in our study, the students refer to some flaws that compromise the realization of praxis in their training, which differs from a study²³ carried out with students from a public university in the southern region of Brazil, who have been working with the integrated curriculum since the year 2000 and used the PBE (Evidence-Based Practice) technique to promote the theoretical-practical relationship. obtaining good evaluations from the students, however, we have to consider that it was a punctual evaluation.

Praxis enables the student to have a more complete view of the possibilities of action, of the possible solutions in situations that require quick and effective decision-making. By relying on theoretical assumptions, scientific evidence and associating them with the development of skills such as proactivity, empathy, leadership capacity, problem-solving, and also combining them with a continuous experience in health services, nursing students have in their hands precious tools to become



a professional capable of transforming the health environment/service in which they will work. This will contribute to the improvement of the care provided to the patient and, consequently, to the strengthening of the health system as a whole.

Regarding extracurricular activities, it was mentioned by the students that the curriculum includes them. Examples of complementary activities include tutoring, extracurricular internships, scientific initiation projects, courses, participation and/or organization of events, participation in political activities of the profession and the SUS, the student movement, cultural and sports activities, among many others⁸⁻⁹.

These activities should contemplate the individual needs and expectations of the students' education and consider the development of the regional health sector and, in order to make better use of these complementary activities, there must be a balance in the workload that is required for care, teaching, research and extension activities⁸, in addition to free hours for them to be carried out.

In the statements of the students in this study, a certain indignation was perceived with regard to the disrespect of free hours, the so-called "green hours", which compromises the little time available to the students, causing a lot of difficulty to divide the time between study, complementary activities and personal life.

It is essential that free time is really respected, in practice, so that students can have more time for individual study, development of extracurricular activities and activities of their personal and daily life such as leisure, sports, culture²⁴ and care for their own health, which consequently could contribute a lot to a better performance of the student in studies.

For the effective establishment of these free hours, it is important to avoid very short intervals between curricular activities, which could hinder the planning of these actions by the students, in addition to the involvement of the students' representative entities (academic centers or directories)²⁵, which could assist in the process of a new reorganization.

Regarding the role of the professor, in the view of the nursing student, there is a difficulty in the implementation of the integrated curriculum due to the possible resistance of the professor to detach himself from the traditional curriculum to the detriment of the current one.

The students' opinion corroborates some studies²⁶⁻²⁷, which were carried out with teachers of the integrated curriculum, in which it was found that the teachers, even recognizing the curricular foundations and the potentialities of the integrated curriculum, do not start from these understandings to conduct their classes, since they take up elements of the traditional curriculum, by valuing the transmission of information. Another study²⁸ also showed that some teachers, even teaching in innovative curricula, develop their professional practice linked to the old models and the way they learned.



In the study carried out by Franco, Soares and Bethony²⁹, they came to the conclusion that, although the discourses given by the teachers are close to the concepts and characteristics that make up the teaching and health policies, it does not allow the conclusion that their particularities are understood by them.

In an integrated curriculum, based on the DCNs/ENF8-9, the teacher should be a facilitator and mediator of the teaching-learning process, and should use innovative means, strategies and techniques to contribute to the development of competencies and skills that should be achieved by the student.

In order for the effective implementation of the integrated curriculum to occur, it is necessary to build environments that enable the instrumentalization/preparation of teachers for the exercise of their practices from the perspective of the integrated curriculum, considering that they are primary elements in the implementation of a curricular proposal²⁹.

5 CONCLUSION

The results of this study allowed us to better analyze the applicability of the curriculum by competencies in the educational institution, in addition to the knowledge of the students about the curriculum, as they are key pieces in this process, since they are the target of the implemented curriculum. From this perspective, the students demonstrated their understanding of the proposal of the integrated curriculum. With regard to the analysis of the positive points of the curriculum, it was possible to highlight in the discourses of the students, the integration of contents, the development of skills and the involvement of the students in extracurricular activities.

Some weak points in the curriculum were also highlighted by the students, being seen as gaps that need to be adjusted, such as: difficulty in uniting theory and practice, little availability of time offered to students and lack of integration of content in the evaluations, as well as the excess of content to carry out the same, resistance of the faculty to detach themselves from old teaching methods.

As for the difficulties related to the teaching staff, it is important to emphasize that all of them have been going through a process of learning new teaching methodologies in order to better qualify them to effectively meet the integrated curriculum.

The results found here will serve as a subsidy for the reorganization of the PPC in the institution, since it is not permanent. This study brings the reality of the applicability of the competency-based curriculum in an educational institution stimulates the elaboration of other studies involving the applicability of the competency-based curriculum, so that the teaching-learning process of higher education institutions can be better discussed and improved, through scientific evidence.



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