

PROBLEMATIZATION ARCH FOR EDUCATIONAL HEALTH PLANNING IN NURSING STUDENTS' PERCEPTION

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ABSTRACT: The study aimed to show the perception of Nursing students on the use of the Problematization Arch in the teaching of educational health planning. This is a descriptive qualitative study carried out with 15 undergraduate nursing students, developed at a public university in the Northern region of Brazil from April to May 2019. The researched subject is part of the second year of the Nursing degree and focuses on the development of health education. We collected data through a semi-structured interviews with guiding questions. We used the data analysis technique of Grounded Theory, separating, conceptualizing, and interconnecting the data with each other through open and axial coding. This process was developed with the help of the trial version of the program Atlas TI®. Three categories emerged from the analysis: Understanding of Active Methodology and the Arch of Maguerez; Educational Health Planning: knowledge and experience; and Arch of Maguerez in the teaching of educational health planning. Students understand and perceive the Arch of Maguerez as an eligible strategy for educational planning in health, as they acknowledge a relationship between the tools and consider that the arch proposes democratic teaching-learning relationships, values previous knowledge, and dialogues with the reality of the target audience.

Keywords: nursing education, health planning, health education.

ARCO DA PROBLEMATIZAÇÃO PARA PLANEJAMENTO EDUCATIVO EM SAÚDE NA PERCEPÇÃO DE ESTUDANTES DE ENFERMAGEM

RESUMO: O estudo objetivou desvelar a percepção de acadêmicos de enfermagem frente à utilização do Arco da Problematização no ensino do planejamento educativo em saúde. Trata-se de um estudo descritivo, com abordagem qualitativa, realizado com 15 estudantes de graduação em enfermagem, desenvolvido em uma universidade pública da Região Norte do Brasil no período de abril a maio de 2019. A disciplina pesquisada faz parte do segundo ano do curso de enfermagem e tem como foco o desenvolvimento de educação em saúde. A coleta de dados ocorreu por meio de entrevista

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semiestruturada guiada por roteiro de questões norteadoras. Para a análise dos dados, utilizou-se a técnica de análise da Teoria Fundamentada nos Dados, separando, conceituando e interligando os dados entre si por meio das codificações aberta e axial. Esse processo foi desenvolvido com o auxílio da versão *trial* do programa Atlas TI®. Emergiram da análise três categorias: Compreensão sobre Metodologia Ativa e o Arco de Maguerez; Planejamento Educativo em Saúde: conhecimento e experiência; e Arco de Maguerez no ensino de planejamento educativo em saúde. Os estudantes compreendem e percebem o Arco de Maguerez como uma estratégia elegível ao planejamento educativo em saúde, pois admitem relação entre as ferramentas e consideram que o arco propõe relações democráticas de ensino-aprendizagem, valoriza conhecimentos prévios e dialoga com a realidade do público-alvo.

Palavras-chave: Arco de Maguerez, Metodologia Ativa, Ensino de Enfermagem, Planejamento em Saúde, Educação em Saúde.

ARCO DE PROBLEMATIZACIÓN PARA LA PLANIFICACIÓN EDUCATIVA EN SALUD EN LA PERCEPCIÓN DE ESTUDIANTES DE ENFERMERÍA

RESUMEN: El estudio tuvo como objetivo revelar la percepción de los estudiantes de enfermería sobre el uso del Arco de Problematización en la enseñanza de la planificación educativa en la salud. Se trata de un estudio descriptivo, con enfoque cualitativo, realizado con 15 estudiantes de pregrado en enfermería, desarrollado en una universidad pública del norte de Brasil de abril a mayo de 2019. La asignatura analizada es parte del segundo año de la carrera de enfermería y se enfoca en el desarrollo de la educación en salud. La recolección de datos se realizó a través de una entrevista semiestructurada con una guía de preguntas orientadoras. Para el análisis de datos se utilizó la técnica de comparaciones contenida en la Teoría Fundamentada, separando, conceptualizando e interconectando los datos entre sí a través de codificación abierta y axial. Este proceso se desarrolló con la ayuda de la versión de prueba del programa Atlas TI®. Surgieron del análisis tres categorías: Comprensión sobre la metodología activa y el Arco de Maguerez; Planificación Educativa en Salud: conocimiento y experiencia; y Arco de Maguerez en la enseñanza de la planificación educativa en salud. Los estudiantes comprenden y perciben el Arco de Maguerez como una estrategia elegible para la planificación educativa en salud, ya que admiten una relación entre las herramientas y consideran que el arco propone relaciones democráticas de enseñanza-aprendizaje, valora los conocimientos previos y los diálogos con la realidad del público objetivo.

Palabras clave: enseñanza de enfermería, planificación en la salud, educación en la salud.

INTRODUCTION

Health education has undergone several transformations over time, going through traditional, hygienist, and sanitarian trends, critical trends centered on the individual and the community, and the development of people's autonomy over their health care and, consequently, disease prevention and improved quality of life. However, despite the evolution of health education, educational practices with strong characteristics of the traditional-hygienist model are still observed, based on the imposition of hygienist habits from coercive educational methods, of an informative-communicational nature, of information transmission and passive assimilation. This may be a consequence of training strongly influenced by traditional conceptions of education, privileging curative knowledge due to practices centered on the individual (Brasil, 2017; Feio & Oliveira, 2015; Villardi et al., 2015).

Since the construction of knowledge in the health education process takes place between professionals and service users, it is essential to use dialogic approaches that enable their active participation, and to use consistent plans for the execution of activities, so that they help in obtaining the expected results (São Paulo, 2001). The planning process maximizes the chances of assertive decisions, as it allows the analysis of past and present events, thinking about a future with better answers than the previous ones – that is why this process is as important as the execution of an action (Bichuette & Forlenza, 2017). For health education actions, the planning process is essential since, in these actions, the provision of information must not be carried out inadvertently, and must be strongly linked to the context of the target audience (Fertman & Allensworth, 2016), becoming a strategic and ordering tool to reach the pre-established objectives of prevention and health promotion. However, sporadic planning alone does not ensure reaching the objectives set, especially when they are complex. Thus, it is essential to have a systematized and organized method of planning, and it is up to professionals to recognize the best scenario for its use (Eldredge et al., 2016).

Educational health planning is developed in four stages: Diagnosis, which deals with the process of data collection, discussion, analysis, and interpretation to identify problems and establish priorities for intervention; Action plan, which takes place after identifying the problem, in which it is necessary to outline objectives, identify characteristics of the target audience and the methodology that fits the profile of these individuals, the resources, the schedule of activities and everything necessary so that the objectives are achieved; Execution, which consists of operationalizing and implementing the action plan; and Evaluation, which involves analyzing the results to verify the scope and fulfillment of the established objectives. The evaluation process must accompany all planning stages to provide subsidies for the adjustment of actions, as well as point out the need for new actions (São Paulo, 2001; Fertman & Allensworth, 2016; Leite et al., 2010).

The practice of health education is one of the responsibilities of health professionals. Thus, the National Curriculum Guidelines (DCNs- *Diretrizes Curriculares Nacionais*) of the Undergraduate Nursing Course determine the competence and ability of nurses to “plan and implement health education and promotion programs, considering the specificity of different social groups and different life processes, health, work and illness” (Brasil, 2001, p. 3).

From this perspective and considering new pedagogical proposals, undergraduate courses have been encouraged to use teaching methodologies that meet the new profiles demanded of their professionals. For this, the Problematization Methodology is considered, through the Arch of Maguerez or Problematization Arch, a relevant teaching-learning strategy in the scope of health education, for the development of educational planning in health, due to its dialogic and democratic knowledge construction.

The problematization methodology is part of the field of Active Methodologies and originated in the popular education movements formulated by Paulo Freire in the late 1950s and early 1960s (Villardi et al., 2015; Brasil, 2014). As a consequence, it has become a method that involves active participation and constant dialogue between the learning actors in a process of discovery, as opposed to those of reception. It is a methodology that addresses the resolution of real problems through tasks that involve reasoning, reflection, and decision-making (Carabetta, 2017).

One of the first references and strategies for the implementation and application of the Problematization Methodology was elaborated in the 1970s, called the Arch of Maguerez, created by Frenchman Charles Maguerez. This methodology was recovered and improved in Brazil by Juan Diaz

Bordenave and Adair Martins Pereira, in the book “*Estratégias de Ensino-Aprendizagem*”, in its first edition in 1977 (Villardi et al., 2015).

The representative scheme of Maguerez's proposal presented by Bordenave and Pereira (2014) has five stages developed from reality or a cut of reality: Observation of reality (observation to obtain a naive image of reality); Key points (to select what is truly important from what is superficial or contingent and to identify the key points of the problem or issue at hand); Theorizing (after identifying the problem, it is necessary to explain the observed phenomena through the interaction between reality and preexisting theoretical-scientific instruments); Solution hypotheses (in possession of the information, the professional uses reality to learn, while preparing to transform it, proposing resolute actions that can be implemented); and reality application (the proposed actions are put into practice).

Considering the stages of Educational Planning in Health and the Problematization Arch, it is assumed that the Arch has strong potential for teaching the planning process for health education, as it comes from participatory planning characteristics, which involve analysis of reality with a user action, prioritization of factors, execution, and monitoring of actions that again address individual and collective reality (Faria et al., 2018). These qualities meet the main potentialities required by contemporary health education.

Since the Problematization Arch is a methodology that aims to bring the individual closer to his reality, so that he can reflect and return to it to transform it into a process of action-reflection-action and that meets both the purposes of education in health regarding training processes, we raised the following question: what is the perception of undergraduate nursing students about the use of the Problematization Arch in the teaching of educational planning in health? Therefore, we aimed to reveal the perception of nursing students regarding the use of the Problematization Arch in the teaching of educational health planning.

METHOD

This is a descriptive study with a qualitative approach, carried out in a public university in the Northern Region of Brazil, which has an estimated 26,213 students enrolled in its most diverse courses. The undergraduate nursing course has, on average, 350 students, who must complete a workload of 4,875 mandatory hours, consisting of theoretical, practical, theoretical-practical activities and Completion of Work Course (CWC) to obtain the Bachelor's and Full Degree in Nursing, at the Federal University of Pará (UFPA, 2008).

The study was developed in a subject of Educational Processes in Health inserted in the second year of the nursing course, focusing on the development of health education, with a total workload of 85 hours, being 25 hours for theoretical classes and 60 for practical classes. Theoretical classes are given weekly at the university, and the practices usually take place in health services and sporadically in Non-Governmental Organizations (NGOs) and schools, being developed in subgroups of five to eight students for approximately ten days, depending on the number of school days in the period. The practical activities are developed through the use of the Problematization Arch as a teaching methodology and a methodology for the development of health education, concomitantly, for three years, for the content “Educational Planning in Health”. The subject is taught by a professor from the institution's permanent staff with the help of the monitoring program and with the participation of student monitors, scholarship holders, and volunteers.

This study was motivated by the need to evaluate the development of teaching activities in the subject of Educational Processes in Health, resulting in a completion of work course developed through the monitoring project “Educational Processes in Nursing: pedagogical approaches focused on the student and the content for the health educator” and the research project “Innovative Pedagogical Approaches in Teaching Health Educational Processes: perception of undergraduate nursing students”, developed by a coordinating professor, two scholarship students, and a volunteer.

The research was developed with a group of 34 students who were in the second year of the undergraduate nursing course. The inclusion criteria were the student should be properly enrolled, have attended the course in the last six months, with 75% or more attendance in classes, and participate in 100% of the practical activities of the course in which the problematization method was used. The exclusion criteria were having attended the course for more than six months, being attending or not

having attended the third semester of the course, having less than 75% attendance in classes, having less than 100% participation in practical activities, and having been failed in the subject.

The minimum attendance criterion of 75% in classes was adopted because this is the minimum required by the educational institution. The use of the criterion of participation in 100% of the practical activities was because the stages of the Arch of Maguerez are developed on different days during the period of practice. Therefore, for the participant to better expose their perception of the topic, it would be necessary for them to have participated in the entire development of the method.

Of the 34 students in the class, only 15 met the established criteria and were then invited to participate in the study by an invitation sent via email and WhatsApp. All contacted students agreed to participate in the study.

Data collection took place through a semi-structured interview with a script of guiding questions. They were scheduled and carried out from April to May 2019, using a voice recorder, in a reserved room at the educational institution at a pre-scheduled time with the students. The recordings lasted an average of ten minutes. After recording, the audios were transcribed into Microsoft Word software.

For data analysis, we used the Grounded Theory (GT) technique (Strauss & Corbin, 2008), which has a conceptual ordering mechanism in a classificatory way, according to its priorities and dimensions, using the description to unveil the categories. For this, it was necessary to separate, conceptualize and interconnect the data through open and axial coding (Strauss & Corbin, 2008). This process was developed with the help of the trial version of the Atlas TI® program, software that allows the systematization and organization of the coding process.

From open coding, we found 21 codes and from their conceptualization and interconnection, in a process of regrouping the data that were separated during the open coding (axial coding), six categories emerged. However, only the three responded to the objective of this proposal.

The study was submitted for evaluation by the Research Ethics Committee and approved under Opinion 3,195,704 and CAAE 06590919.9.0000.0018. Participants signed an informed consent form; to ensure anonymity, the name of the subject was omitted, using figurative nomenclature, and the participants were referred to in the study by the letter P plus numerals in sequence (P1, P2, P3...).

RESULTS AND DISCUSSION

The three categories will be discussed in the following order: Understanding Active Methodologies and the Arch of Maguerez; Educational Planning in Health: knowledge and experience; and Arch of Maguerez in the teaching of educational planning in health, referring, respectively, to the understanding of how students perceive the active methodology and the Problematization Arch; knowledge, perceptions, and experiences of students on health education planning; and the teaching-learning process through the development of educational planning, through the Problematization Arch.

Understanding Active Methodologies and the Arch of Maguerez

Active methodologies are a set of teaching-learning methods, with characteristics that break with the purposes of traditional education. The main purpose is to develop student autonomy so that they become active in their learning process and critical of their reality, problematizing it in an interaction theory and practice (Konopka et al., 2015). It is a model based on critical pedagogy, which has the student or apprentice as the main character in its knowledge construction process, being co-responsible for its trajectory, and the achievement of established educational objectives is subject to their active participation (Carabetta, 2017; Fujita et al., 2016). Making students the center of the teaching-learning process is the first step for them to develop a critical sense of their learning and skills to apply the acquired knowledge in reality (Pinto et al., 2018).

The students demonstrate that they understand that the active methodology differs from the traditional methodology in the sense that there is not only the transmission of knowledge and a passive attitude about what is taught; students become critical, questioning participants, developing autonomy over their learning process.

The active methodology aims at student participation within the classroom, so I am no longer a viewer, I am a participant (P11).

In the active methodology, the student will not only receive knowledge from the teacher, but he will also have a critical sense, he will seek it, he will think about the reason for that, not just use that as the truth, he will try to understand the reason for that (P1).

The student becomes autonomous, so he has a greater variety of opportunities, to be able to be proactive, to have the autonomy to learn, as well as he also feels more comfortable talking to the teacher, to improve his development in the subjects (P5).

The appropriation of active methods is still considered recent, considering the scope of its use and what refers to the recognition of its benefits, since the traditional teaching model still predominates in higher education in nursing in Brazil (Lima, 2017). The country's educational policies have advanced in recognizing the need for critical, reflective, and participatory education for health, both in the academic context and in professional practice. Even the traditional model persisting in many educational institutions, more and more, over the years, curricular changes are perceived in search of the adoption of active methodologies, considering what is recommended in the DCNs and the needs imposed by the world of health work (Moura & Machado, 2016). In this scenario, recognizing the need to train professionals who meet the demands of the SUS user population and the job market, health education demands changes in thinking about professional training and the recognition of a student-centered pedagogical model, it is up to the teacher to act as a mediator of the teaching-learning process, making the student subject in the construction of knowledge (Souza et al., 2020; Menegaz et al., 2019).

The methodology of problematization, when in the development of the stages of the arch, makes the student the subject of his learning, favoring the integration of teaching and service in the academic practice area, as well as making the community the focus of interventions originated in the learning process (Moura & Machado, 2016). The operationalization of the Arch of Magueréz as an active problem-solving methodology requires the learner to be committed and responsible for their learning, and the development of these skills will reflect not only on their acquisition of knowledge but also on their role as a professional committed to excellence in care. This is facilitated when there is a horizontal relationship between teacher and student, in which both seek, discuss and criticize the source context of learning (Marques, 2018). Also, students describe what they understand about the Arch of Magueréz:

It is very systematic, it has an order, a logical segment. I only thought that I was problematizing and trying to intervene based on that, it was kind of resolute like "ah, we have a problem, let's find a solution to this problem", but no, there is a whole context, like the Arch of Magueréz offers (P7).

The Arch of Magueréz is the materialization, it is the schematization in this way, of the problematization method (P8).

The Arch of Magueréz is to observe, see the problems, then create hypotheses and then see ways to solve that problem of mine and create some solution, I will implement it to see if it is efficient and I can act according to what I planned (P2).

Students understand the Arch of Magueréz as a process of systematizing the Problematization Methodology, as a way of analyzing the adversities present in a given reality, developing strategies capable of solving them, and intervening from planned actions. Despite not explicitly mentioning the stages of the arch, the students made a brief description of its development. We also identified the association of the stages of health education planning with the stages of the arch, as developed during the practical activities.

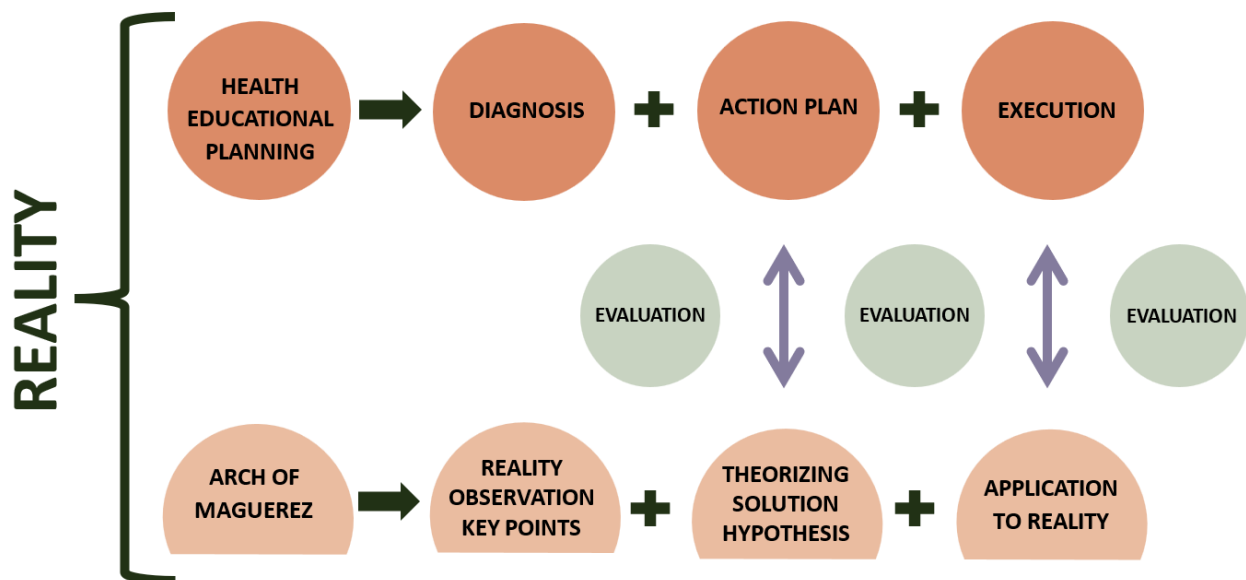
Everything will always start from observation and I will always have to create a critical point in everything I observe from these problems that exist I will draw up a plan and implement this plan (P2).

They had the data to evaluate, then we evaluated the problems, we saw how we could solve those problems, then put them into practice, then came back for evaluation. Assessment is continuous, at all stages (P12).

The initial ideas and intentions with the creation of the Arch of Maguerez did not seek to carry out a planning method, but rather a didactic tool for the active production of knowledge through investigation, reflection, and criticism of reality to form capable citizens contributing to the transformation of society (Berbel & Gamboa, 2011). No studies were found that make the correlation between the Arch of Maguerez and Educational Health Planning. However, in this study, there was the perception that planning based on this method can bring good results for health education practices, considering its objective of social transformation and its systematization that allows organizing actions and meeting the needs most felt by the population.

Although these methods do not have identical names and descriptions, they share the same objective of identifying and solving problems in reality. In this sense, the teaching-learning process is developed around the following relationship between them: observation of reality and key points with the diagnosis stage, as both aim to collect data, discuss them and establish priorities; theory and solution hypotheses and action plan, as they aim to study the data and problems to outline and organize viable solutions for them; and the stage of application to reality in line with the stage of execution, when it is proposed to put the solutions thought into practice (Figure 1).

Figure 1 – List of stages of Educational Planning in Health and the Arch of Maguerez.



Source: Prepared by the authors, 2020.

Although the relationship between the Arch of Maguerez and Educational Health Planning is not explicit in the literature, Berbel (2016), in his explanation of the Application to reality stage, emphasizes that to put the hypothesis of elaborated solutions into practice, it is necessary for students to plan the execution of actions by answering the following questions: “What will they do? How will they do? When? With whom? What do they need for this? What resources can you already count on? Which ones will you have to get? Whose actions should benefit?” (Berbel, 2016, p. 117). The proposed planning, from this perspective, is directly related to the Action Plan stage of Educational Health Planning. It is considered that the action plan is the result of a planning process before acting and, therefore, in the relationship proposed here, considered an instrument for the organization and operationalization of pre-established actions or even a micro-planning aimed at the systematization of actions.

Regarding the Planning Evaluation, which does not have an equivalent stage in the Arch of Maguerez, the need to evaluate intervention processes is evident, which allows verifying whether the objectives have been achieved and whether there will be a need for further actions.

Considering that each stage of the process has a specific objective, the evaluation goes through all the stages continuously to identify the need for possible adjustments in the process (São Paulo, 2001). In this sense, although the evaluation does not explicitly include one of the stages of the Arch of Maguerez, for its development, it is necessary for students to record the intervention and analyze the results, whenever possible (Berbel, 2016), which suggests the process evaluation methodology.

Educational Planning in Health: knowledge and experience

For the health education process to take place in a balanced, organized, and rational way, considering the characteristics of the public and its specific difficulties, there is a need to carry out planning so that the objectives of the educational process are achieved with good and transformative results (Leite et al., 2010).

Educational Planning in Health has two classifications: centralized and participatory. While the first aims to plan health education through ready data, such as epidemiological indices or simplistic impressions about the environment, the second uses interaction and construction with the target audience, allowing opinions and suggestions to be added so that the health education is based on situations or problems consistent with their real needs, and on viable solution proposals for their context (São Paulo, 2001).

In this sense, the students showed their perception with learning about the types of educational plans, considering their experiences with their application in the field of practice.

We first used centralized planning, it was with a closed theme and I remember that we worked with depression. Then we made a tool to talk to each user and discover their need for an educational action for them [...]. We saw that it was much more focused, much better than in depression. Everyone was very nice, we saw that there was a better return on learning, because we did the necessary (P9).

So, in practice, it was pretty cool because we didn't do that targeted planning, we did participatory planning, we first listened to what they needed to know, and we kind of molded it (P1).

We observed that there was an understanding of the difference between the two types of planning, as well as the characterization of participatory educational planning as the most favorable to the development of health education.

Participatory planning assumes a dialogic-reflexive process between the context and its consequent demands. It is related to the democratic relations between the health team and the population, which together analyze and reflect on the needs and solutions based on their health interests. It distances from centralized planning because it allows social participation and, consequently, solves problems from the needs most felt by the population (Leite et al., 2010).

On the other hand, we observed that some students, despite understanding that participatory educational planning maximizes the chances of assertive decisions in the application of health education, only cite centralized planning strategies to adapt the action to the scenario in which it will be developed.

I find it interesting about the organization issue because when we plan, the chance of our educational action working is greater [...] so we always have to have a plan B and a plan C to see if it will work right and if the population needs that educational action according to the need, both in terms of epidemiological data and indices (P5).

Epidemiological data and health indices are extremely important for the development and improvement of the SUS in decision-making or the production of public policies, for example. However, these data are insufficient to carry out health education, as it requires a more intimate process with the community and goes beyond just passing on information for disease prevention. It is also about knowing the target audience, their customs, their beliefs, their culture, their socioeconomic reality, and making them develop the necessary autonomy to take care of their health based on who they are and what they can do about their care. That is why Participatory Educational Planning is so important for the success of health education, as it assumes that considering the individuality of the individual is the most consistent way of making him believe in healthy habits and practice them (Leite et al., 2010).

In addition to understanding the types of educational planning, the students exposed their perception of the Evaluation stage.

In planning, you have to observe if that educational action is going to work if it is really necessary if the population liked it if their feedback with questions and doubts was really important if they understood. All this must be evaluated (P5).

I see that it is very important (the evaluation) for us to achieve it because we focus on the issue of results. So I see it's important to do this analysis because sometimes we just do one action and don't come later to discuss how it went. Was it beneficial? So I see it's important for that, to see how it went and what I can improve (P3).

In planning processes, a well-designed plan and a good allocation of resources are not enough. In this sense, the evaluation stage allows monitoring the results of the actions carried out and shaping or changing their strategies to achieve the intended objectives. It also increases the chances of success of the plan, as it is carried out to qualify the execution of the entire method (Faria et al., 2018). In participatory educational planning, all stages undergo an evaluation, investigating possible failures during the process. As in the other stages, it calls for dialogic, bidirectional, and democratic processes in the control and supervision of actions (Leite et al., 2010).

Combining the development of the problematization methodology with other ways of teaching, such as through the development of educational health planning, we can guarantee rich experiences, fundamental to professional and human training, ensuring increasingly quality and comprehensive nursing care actions, facing the process of learning from reality and intervening in it (Berbel, 2016).

Arch of Maguerez in the teaching of educational planning in health

The methodology of problematization inserted in the training of nurses develops psycho-affective and relational characteristics essential for excellence in care, through practices aimed at life in society and group work, in addition to autonomy and criticality, since it is necessary “knowing, knowing how to do and knowing how to be” (Marques, 2018, p. 2)

The students perceive that the use of the problematization methodology contributes to the educator nurses who are more prepared to bring health guidelines to the population.

I need to be able to see the importance of the nurse in this education process, of taking the issues to the community because sometimes people do not even know what they are doing there, that type of treatment, or why they are doing that particular procedure. So I see that it is very important precisely for us to bring this education to the community (P3).

[...] for our graduation, I think it is one of the best methodologies for us to develop precisely the issue of educating the nurse educator and health education (P13).

I think the methodology of problematization is important because we can make teaching at our college more viable for the population, for people outside the academic world (P5).

The statements above are important when reflecting on the influences that teaching methods have on the attitudes and skills of future professionals, especially when it comes to health education practices. Academics who are taught using less dynamic methodologies that require little involvement will probably also allow little of this from users, which is proven to be ineffective for quality care. That is, these learners may reproduce, in the field of work, the way they were taught. In this sense, the benefits for the teaching of nursing are justified with the use of the Problematization Methodology, especially the liberating and significant learning, since, being an active teaching method, it requires autonomy from the learner to participate in the entire process, teaching and learning with others involved (Villardí et al., 2015).

Students express the intended objective when teaching how to plan health education, through the Arch of Maguerez. By teaching how to plan health education, the consequence will be the

offer of higher quality educational practices for the population, especially when using actions that allow the participation of the target audience (São Paulo, 2001). On the other hand, despite being a methodology commonly used in the scope of formal education, the context in which the Arch of Maguerez was presented in the course led students to the perception of the importance of using the method directly in health education, when they report that such use allowed the exchange of knowledge between them and the population, and that access to users' prior knowledge provided the development of autonomy.

I think it's a good thing because sometimes we just have the subject and want to talk about it, but we don't see what the public needs and how it happened there. [...] I think he gives the possibility of having the other's vision to be able to act, he gives this exchange (P10).

[...] I think it is important in the sense that we somehow share information with the population and also acquire information from them, giving us more autonomy as well (P5).

Student autonomy is related to their liberation as thinking, creative being, and capable of taking responsibility for their learning. When he is given the opportunity and when he provides dialogic relationships in the educational process, he uses a way of learning and allows others to learn too, because it is in participation, and not in silence, that people are transformed (Brasil, 2014; Freire, 2019).

Thus, the logic of education in which the educator is the only holder of knowledge becomes increasingly less efficient, given the evidence that participatory teaching methods value the participants' prior knowledge, contributing to the construction of knowledge and meaningful learning (Freire, 2019).

In machine learning, the biggest concern is the exact memorization of the content; in meaningful learning, it is necessary to have a link between previous knowledge and new knowledge so that this relationship leads to the re-signification of the individual's previous knowledge, acquired through their experiences. This means that learning is only meaningful when the new information is internalized and acquires meaning for the learner. While the first is limited to use in usual situations, the second can be used in unfamiliar, unexpected, and real contexts, proposing creative changes to the problem (Freitas et al., 2016).

The students also explain that the use of the Arch of Maguerez to develop health education is important because, as this method aims to transform situations that start from reality, it allows greater contact with the people that live in that context.

I think it is important because from the moment we observe reality, we will have greater contact with the public that we will talk to because then we know what they want to hear, so the chance for them to pay more attention and people being able to make a difference is greater because, from the moment I arrive and start from an existing problem, people will often want these problems to end or stop happening, as happens a lot (P1).

Health education needs to be focused on the user, on the patient, so, if I understand the environment in which he is inserted, it will be much more profitable, it will be much more effective, it will be able to reach him more real, with more truth (P11).

Well, I believe that the problematization will make us see the human being as a whole and not as parts. So, based on the environment in which he is inserted, I will analyze all the aspects that surround him so that I can observe him as a whole (P11).

It is easier to transform reality when the actors belonging to it participate in the problem analysis process. This question leads to the discussion that the Arch of Maguerez would represent a participatory methodology that allows the real needs of users to be addressed, contributing to the fulfillment of the principle of comprehensive care. In the first three stages of the Arch of Maguerez, detailed investigations are carried out on the social context to extract the problems and as many causes related to them as the group can (Villard et al., 2015). In this sense, the proposal to use this method in the subject allowed the students to approach the users, which allowed a more complete analysis of the problem in these three stages. This was possible because the participatory strategy brought unique information, which would hardly be perceived in a centralized proposal without dialogue.

Students also reported that the continuous use of the Arch of Maguerez contributed to the recognition of its importance and to the perception that it subsidizes the development of educational health planning.

From the second or third educational action that we were constantly using, we saw the importance and how it facilitates giving the steps that we can follow, it facilitates when planning and it is good (P8).

[...] he gave me a basis for me to plan better, you know, the points that I can address, in what way I can address them. So I see that it is of paramount importance in the development of our plans (P3).

Arch of Maguerez is practically the materialization of this planning, it gives you the steps for you to follow, for you to have an effective action plan (P8).

In the statements that follow, the students explain that the choice of teaching methods for the subject enabled the processes of planning, problematizing, and organizing to be part of their skills as academics and future health professionals.

I improved in my organization, I was not an organized person, today I do nothing without planning, I always sit down and plan, I observe everything, from the methodologies and materials I will use, from results to my conclusion. All that academic work that we always do, right, I have this work to do and to always observe what I can improve, what this will bring benefits to the population (P5).

For example, in the educational action, I didn't plan as much or I didn't act so actively, then, according to the practices, I already had more control and this autonomy to lead and this was very important in the Arch (P12).

My vision changed a little because before I didn't have this vision of planning, organizing, looking for critical points and, from this subject, these contents, I can analyze better, see my problem and focus only on it, seek a solution specifically for him [...] (P2).

[...] we are training to be health professionals, so we need to develop this critical sense and through this methodology of problematization we are induced to question, we are induced to develop this critical sense that every health professional health must-have. So I think it's very valid. It's a methodology that works, the student feels the responsibility that he will have upfront, so I think it's very important (P14).

The constant changes in the educational field and the way information and knowledge are disseminated require constant improvement in teaching methods and conceptions. Innovative methodologies, especially active methodologies, aim to develop students capable of self-managing their training process, building professional characteristics that allow them to face the constant and rapid transformations of life in society (Brasil, 2001; Fini, 2018).

Considering that in many institutions the teacher is the one who commands and directs the events and is the one who takes the proposals of methods to be used in the classroom, as well as in the field of practice, it is important that he is also constantly updating, seeking to know innovative methods and what are its benefits, always evaluating the effects of what it uses in search of improvements not to become a barrier to the success of the teaching-learning process. However, this professional needs to be open to new concepts and willing to often abandon rudimentary postures, as it is possible that their old conceptions of teaching influence the misuse of these methods, compromising the achievement of the objectives for which they were created (Villardi et al., 2015).

Given what was perceived in this category, we verified that the students reproduced their democratic teaching-learning relationships with the teacher in health education actions with users. Thus, it is possible to confirm that the methods used in the classroom greatly influence the future professional attitude of each student (Villardi et al., 2015). However, it is worth noting that, combined with the characteristics of a good teaching method, it is necessary to consider the availability of the teacher, their preparation, their intentionality, their conscious and thoughtful use, in addition to the frequency of use

of the method, because when used repeatedly throughout the course, it can result in a methodological stance also manifested by students (Berbel, 2016).

FINAL CONSIDERATIONS

Because of the objective established for this research, we could see the perception of nursing students about the use of the Problematization Arch in the teaching of educational health planning, considering understanding, knowledge, and experience. We found that the arch is potential for teaching educational planning in health, as the academics demonstrated learning about the topic, when using the Arch of Maguerez, in addition to the method having characteristics of participatory educational planning, corroborating for a liberating education in health, in search of meaningful learning.

Students perceived that the arch is an eligible strategy for health education planning when they relate the stages of the two methods and consider it a tool that proposes democratic teaching-learning relationships, which values prior knowledge and dialogues with the reality of the target audience.

Health education planning is considered essential for nursing and health care. In this sense, the study is innovative because it presents the favorable relationship between the two methods as a strategy for training in nursing and health and the development of health education, as a possibility of being used in different scenarios, with different audiences and contents.

The research contributes to the expansion of the use of the Problematization Methodology by professors in courses in the health area, as well as to the dissemination of scientific production related to Educational Planning in Health, considering the scarcity of studies on this topic.

The study aimed to understand the perception of a limited number of students, bringing the approach of only one class. Despite this, it allows the development of other studies with a greater number of students and also focuses on other contents, aiming at more in-depth studies and the expansion of the results on the use of this method as a direct tool for educational health planning to contribute to the improvement of the work of nursing and other areas of health.

We believe that the appropriation of the methodological characteristics of the Arch of Maguerez is one of the ways for nursing students to put in future health professionals who aim to transform reality through critical and reflective thinking and who aim to value the other as a thinker. Therefore, teaching academics to plan health education through this methodology is a way to ensure the training of qualified professionals and mediate the process of emancipation of the learner/user, developing autonomy to transform health.

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Author 1 – Project advisor, participation in data analysis, writing, and text review.

Author 2 – Data collection, data analysis, and text writing.

Author 3 – Critical review of the content and review of the final writing.

DECLARATION OF CONFLICT OF INTEREST

The authors declare that there is no conflict of interest with this article.

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