



ORIGINAL ARTICLE

Professional development strategy in pediatric Caumatology for health teachers in Ecuador

Estrategia de superación profesional en Caumatología infantil para docentes de salud en Ecuador

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Received: September 08, 2024

Accepted: September 18, 2024

Published: September 19, 2024

Citar como: Lema-Balla JR, Urbay-Rodríguez M, García-Muñoz JJ. Estrategia de superación profesional en Caumatología infantil para docentes de salud en Ecuador. Rev Ciencias Médicas [Internet]. 2024 [citado: fecha de acceso]; 28(S2): e6539. Disponible en: <http://revcmpinar.sld.cu/index.php/publicaciones/article/view/6539>

ABSTRACT

Introduction: at present, the development achieved in children's Caumatology, it is essential to train health teachers with an interdisciplinary and experiential approach in Ecuador with knowledge and skills that allow them to provide quality services.

Objective: to design a strategy of professional improvement for the development of the content of pediatric Caumatology.

Methods: the research, due to its approach, is mixed. Among the methods used, the following can be mentioned: analytical-synthetic, inductive-deductive, historical-logical, abstract transit, system approach, modeling, interview, survey and expert method, which allowed the design of a professional improvement strategy for the development of the content of pediatric pneumatology.

Results: the professional improvement strategy was designed for the development of the content of Pediatric Caumatology addressed to health teachers of Primary Health Care for the comprehensive care of burn patients in pediatric age, thus improving the performance of these professionals, since it allows the health teacher to be updated with methods that respond to the demands of this specialty due to the large number of patients who suffer burns. In the dynamics of the execution of the actions of the professional improvement strategy, teachers went from low to medium and high levels in their performance, which corroborates the relevance of this result.

Conclusions: the strategy is distinguished by the use of scientific-methodological ways of working that make it possible to improve the management of the teaching-learning process of the content of children's Caumatology.

Keywords: Strategy; Professional Performance; Primary Health Care.

RESUMEN

Introducción: en la actualidad el desarrollo alcanzado en la Caumatología infantil, es indispensable la formación de docentes de la salud con enfoque interdisciplinario y vivencial en Ecuador con conocimientos y habilidades que permitan brindar servicios de calidad.

Objetivo: diseñar una estrategia de superación profesional para el desarrollo del contenido de la Caumatología Infantil.

Métodos: la investigación por su enfoque es mixta. Entre los métodos empleados se pueden mencionar: el analítico-sintético, inductivo-deductivo, histórico lógico, el tránsito de lo abstracto, enfoque de sistema, la modelación, entrevista, encuesta y método de expertos, lo que permitió el diseño de una estrategia de superación profesional para el desarrollo del contenido de la Caumatología Infantil.

Resultados: se diseñó la estrategia de superación profesional para el desarrollo del contenido de la Caumatología Infantil dirigida a los docentes de la salud de Atención Primaria de Salud para la atención integral a pacientes quemados en edad pediátrica y así mejorar el desempeño de estos profesionales pues permite al docente de la salud estar actualizado con métodos que responden a las demandas de esta especialidad por el gran número de pacientes que sufren quemaduras. En la dinámica de ejecución de las acciones de la estrategia de superación profesional los docentes transitaron del nivel bajo a nivel medio y altos en su desempeño, lo que corrobora la pertinencia de este resultado.

Conclusiones: la estrategia distingue por el uso de vías del trabajo científico-metodológico que posibilitan una mejora de la dirección del proceso de enseñanza-aprendizaje del contenido de la Caumatología infantil.

Palabras clave: Estrategia; Desempeño Profesional; Atención Primaria De Salud.

INTRODUCTION

One of the medical emergencies is burn accidents, considered a challenge for different reasons: their prevalence in daily medical practice, influencing people's quality of life, and because in this first care of the patient, adequately trained personnel do not intervene. Pediatric Caumatology in Ecuador represents a useful tool for the diagnosis, treatment and rehabilitation of burns in children. Currently, the government is making great efforts to promote and develop the appropriate comprehensive treatment of burns in children.

Currently, the Republic of Ecuador recognizes Pediatric Caumatology as a medical specialty that integrates and holistically addresses health problems, using methods for diagnosis, treatment, prevention of complications, and rehabilitation based on traditional medical systems. As a result, the Ministry of Public Health of Ecuador, in order to respond to this demand, incorporated into the curriculum of the Medicine degree the Pediatric Caumatology curricular strategy that

promotes the initial training of professionals. However, the scope of training for medical students in Pediatric Caumatology has been dispersed and uneven.

It is therefore necessary to work with teachers to promote training with an interdisciplinary and experiential approach, which will enable them to integrate the development of the content of Pediatric Caumatology and allow their professional performance in Primary Health Care, as it is the guiding link of the Ministry of Public Health of Ecuador. Teachers must be up to date with the advances in science and technology, which is essential to apply comprehensive treatment. That is why the objective of this research is to design a professional development strategy for the development of the content of Pediatric Caumatology aimed at health teachers with an interdisciplinary and experiential approach in Primary Health Care who care for children with burns.

The authors, within the framework of this research, recognize the concept of professional development as: "a set of teaching-learning processes that enable university graduates to acquire and continuously improve the knowledge and skills required. This provides the continuous improvement of professionals in the different sectors and branches of production, services, scientific research and teaching, in accordance with the advances in science, technology and art and the economic-social needs of the country, with the aim of contributing to raising the productivity and quality of work of graduates of higher education." ^(1,2)

This definition summarizes important aspects that are addressed by other researchers, such as considering the teaching-learning process as part of professional development and recognizing continuous training as a distinctive feature of professional development. In the concepts of Professional Development issued by the aforementioned authors, it constitutes a process, its purpose is directed towards the acquisition of knowledge, the development of skills, cultural training and enabling better performance. This criterion, which is shared by the author of this article, highlights the implementation of actions that allow updating knowledge, developing skills and strengthening values.

Professional development as a continuous process aimed at professional and human improvement must respond to the transformations required in the conduct, knowledge, skills and professional qualities of teachers. Today, it is necessary to focus professional development on raising the competence and performance of the professional, which responds to the needs of the teacher in the context of the fundamental activity that he or she carries out and those of the educational system. The aim is to have a professional who is increasingly better prepared to face the advances of today's world, capable of reflecting on his or her practice and transforming it.

Professional development has its own characteristics, which have been determined and summarized by several authors. Berges Díaz JM ⁽³⁾ in research developed in this regard, has referred to: ⁽³⁾

- Respond to the needs of professional and human improvement of teaching staff.
- Promote the most rational and efficient use of highly qualified personnel from the different subsystems of the National Education System.
- Combine the efforts of universities, polytechnic schools, other higher education centers, production centers, research centers, and services that can contribute to the development of teaching staff.
- Have a projective character and respond to specific objectives determined by the needs and development perspectives of teachers through actions framed within a defined time interval.
- Promote the regular participation of teachers in studies that improve their qualifications.

The collective of authors from the CECIP of Villa Clara, headed by Nerelys de Armas, considers the recognition of the need to raise the quality of educational services from their institutions, especially from the teaching-learning process in the classroom, an approach that the author shares; and they recognize three integrated axes from which the educational improvement process can be perfected, which are:

- The professionalization of teachers.
- The modification of the forms, methods and styles of teaching and learning.
- The articulation of the school's work to the context in which it is inserted and of which it is a part, Escudero Muñoz JM.,⁽⁴⁾ professor and researcher at the University of Murcia, characterizes professional development from the perspective of permanent training, highlighting the combination of multiple important factors, with emphasis on those of the context; but also takes into account other scenarios and dimensions that intervene in its development, raising the need for:
 - Involve diverse learning processes, from analysis and reflection on one's own practice, to meaningful access and learning of new content and skills based on available and valuable pedagogical knowledge.
 - The interactive relationship with personal factors (personal needs, teaching biographies)
 - The collegiate and contextual nature that involves attention to the culture of the centers themselves, institutional dynamics, professional cultures, structures that affect the workplace and time within it.
 - Training based on a set of training content and focused on teaching and learning; others of an organizational, professional and personal nature in and from the contexts of their own practice, interests and experiences.

Strategies of training enough diversified according to the content, contexts and time in which they occur, processes that are intended to be mobilized, the subjects involved from a more integrative perspective based on one or another configuration resulting from the combination of the different elements (short courses, workshops, work groups, peer learning sharing observations and assessments of the respective practices, collaboration) in pedagogical renewal and research groups, self-learning)

The above implies that in professional development, as Bernaza G.,⁽¹⁾ has rightly stated, it is necessary to consider the theoretical support of the historical-cultural approach of LS Vigotsky and his followers as a fundamental support for the diagnosis of teachers, as well as the projection of actions that teach them to rise to the desired level and to learn throughout life, to undertake tasks with independence and creativity, which can be enriched with personal experience through the interactions that occur with others.

On the other hand, researchers such as Vázquez V and Escámez J.,⁽⁵⁾ have addressed the professional development of teachers as a continuous, prolonged and permanent process, which occurs during the performance of teaching duties and seeks to broaden the scientific pedagogical horizon with the intention of enhancing the intellect and feeling of the individual in the performance committed to the transformation of his practice.

In the author's opinion, these conceptualizations in a general sense assume professional development as continuous or permanent education that allows the teacher to be part of the dynamics of change in the educational process, to face the problems that arise as a result of educational transformations; in addition, it ensures the conditions for reflecting on the effectiveness of their way of acting and transforming it. Having as its goal the development of the teacher for their professional and human improvement.

METHODS

The research, due to its approach, is mixed, combining qualitative and quantitative aspects to design a professional development strategy for the development of the content of Pediatric Caumatology aimed at health teachers in Ecuador in Primary Health Care who care for children with burns. Due to its scope, the research is descriptive since it characterizes the current state of the teachers' performance. It is also descriptive since it characterizes both the meanings regarding the teacher's performance and the quality of the knowledge and practical skills that allow training health teachers to provide quality care services in the different modalities of this discipline.

Among the methods used, we can mention: analytical-synthetic, inductive-deductive, historical-logical, the transition from the abstract, system approach, modeling; within the empirical methods, the interview, the survey, the analysis of documents and the expert method were used.

RESULTS

Fundamentals of the professional development strategy

The multilateral and harmonious development of personality requires diversity in the fields of culture to be assimilated and in the activities and relationships of the process in which they live. Consequently, the preparation of health teachers with an interdisciplinary and experiential approach in Ecuador covers all facets of the development of the human personality, and includes the content of Pediatric Caumatology. This occupies a significant place in medical training, by virtue of contributing to the comprehensive training of those who will have in their hands the safeguarding of Ecuadorian public health in order to promote a better quality of life. The assumptions that serve as a theoretical basis for the strategy are based on philosophical, sociological, psychological and pedagogical assessment.

It is based on considering the criteria that the authors refer to regarding the term strategy, among which the following stand out:

"(...) Every strategy goes through a phase of obtaining information (it can be diagnostic in nature), a phase of using information and a phase of evaluating that information. In addition, as its name indicates, it must have a margin for redirecting actions."⁽⁶⁾

"The strategy establishes the intelligent direction, and from a broad and global perspective, of the actions aimed at solving the problems detected in a certain segment of human activity (...)"
Problems are understood as "(...) the contradictions or discrepancies between the current state and the desired state, between what is and what should be, according to certain expectations (...)" that arise from a given social and/or educational project. Its design implies the dialectical articulation between the objectives (goals pursued) and the methodology (means used to achieve them).⁽⁷⁾

"We understand strategy as a certain ordering of actions in the course of solving a problem in which each step is necessary for the next. These sequences of actions are strongly oriented towards the goal to be achieved. Persistence in a procedure or its change is also related to the success achieved in achieving a goal. The existence of a chain of actions oriented towards a goal does not imply a single course of procedures; rather, the repetitions, steps and counter-steps

attest to the multiple decisions that the subject adopts in the attempt to solve the problem. Faced with the same objective, it is possible to develop different strategies.”⁽⁸⁾

The strategy proposed in this research considers the potential of methodological work as a way to prepare health teachers to improve the direction of the teaching-learning process of the content of Pediatric Caumatology through the interdisciplinary and experiential approach in Ecuador in medical training; and has as theoretical support the Marxist-Leninist philosophy, based on its dialectical materialist method in direct relation to the process of formation of man in interaction with nature and society through social practice.

This strategy for professional development assumes the general dialectical materialist method because it comprises the theory on which the principles of science and its research methods are structured; it also indicates the path to follow in the process of knowledge.

It also takes into account the development of the scientific conception of the world, based on the analysis of the improvement of the direction of the teaching-learning process in which the different forms of preparation are considered, the changes that occur, the experience accumulated by health teachers, the correct interpretation between the content of the theory and objective reality and the establishment of a close relationship with life.

In this sense, the actions proposed in the strategy are related to the problems that have been detected in the teaching of Pediatric Caumatology content in the Republic of Ecuador, Province of Chimborazo, Canton Riobamba.

It is the theory of knowledge, the basis of the strategy, since it is conceived so that, based on the problems related to improving the direction of the teaching-learning process of the content of Caumatology, to health teachers, with the interdisciplinary and experiential approach in Ecuador, the health teacher can reflect, search for information, interpret it and acquire the necessary knowledge to improve the preparation of health teachers, considering practice as the beginning and the end of cognitive activity, that is, from living contemplation to abstract thought, and from this to practice.

It also considers the role of contradictions in the process of knowledge acquisition; and the need to determine, among others, those that are manifested between the new knowledge and attitudes that the health teacher acquires and those that he or she already has; between theoretical knowledge and the ability to apply it in pedagogical practice, between the level of the content being studied and the real possibilities for its assimilation.

The development of this strategy is based on the sociology of Marxist education, based on the relationship between education and the transformation of society, as well as the role of health educators and teachers as protagonists of this process.

Likewise, the actions of the strategy give the teacher the opportunity to interact with the teachers of the content included in the disciplines Biological Bases of Medicine, Diagnostic Research and with the Main Integrative Discipline, which allows establishing alliances to improve the direction of the teaching-learning process of the Caumatology content.

It is also evident from the strategy that the professional preparation of teachers allows the appropriation of knowledge and attitudes with an interdisciplinary and experiential approach in Ecuador in medical training that are evident in their pedagogical performance.

The historical-cultural approach begins by considering Vygotsky's ideas related to the Social Situation of Development, as a starting point for all the dynamic changes that occur throughout life in the development of the human psyche and the assumption of this development as a process that moves from the external, social and interpsychological plane to the internal, individual and intrapsychological plane on the basis of the active and conscious participation of teachers.

In this sense, the proposed improvement strategy establishes relationships with other components of the basic area that constitute external educational influences that contribute to raising the levels of knowledge, attitudes and pedagogical performance in relation to improving the direction of the teaching-learning process of the content of Caumatology with the interdisciplinary and experiential approach in Ecuador and that result in the comprehensive training of health teachers.

Likewise, the Zone of Proximal Development is another contribution of the historical-cultural approach, which was taken into account in the planning and implementation of the strategy, since it starts from determining the potential and shortcomings of health teachers in relation to the interdisciplinary and experiential approach in Ecuador in the direction of the teaching-learning process of the content of Pediatric Caumatology and the mediation carried out by the teacher with the implementation of the actions of the strategy to reach a potential development on the basis of the results of the diagnosis and comprehensive treatment.

From a pedagogical point of view, the strategy is based on the Marxist-Leninist and Martian pedagogical concepts on which pedagogy is based, and it takes into account the aspiration to achieve unity between the instructive, the educational and the developmental.

The need to organize the actions of the strategy in relation to the fact of adapting them to the real conditions of medical training and to the problems related to the interdisciplinary and experiential approach in Ecuador in the direction of the teaching-learning process of the content of Pediatric Caumatology is assumed.

Consequently, in order to achieve an optimal direction of the teaching-learning process, it is especially important to take into account the pedagogical foundations supported by Ecuadorian pedagogy from the singularities of the didactics of Ecuadorian education. In this case, it is about the general laws of pedagogy. Despite the epistemological debate regarding them, in the study the researcher delved into a scientific result of the Pedagogical University of the year 2016 published in an article in the magazine Universidad: "Epistemological problems of Ecuadorian pedagogy: its significance in the professionalization of the university teacher", where its authors, after doing a study, systematize those laws:

- Law of the relations between the economic, social and political model of the Republic of Ecuador and the aims and objectives of the pedagogical process.
- Law of unity between instruction – education and training – development in the pedagogical process.
- Law of unity between theory and practice in the pedagogical process.
- Law of the interrelation of the social order with the individual particularities of the actors in the pedagogical process.

These are assumed in the study because at all times, as has been explained, this proposal is directed to the social role that the health professional has and how he is prepared for it, in the same way, unity is sought between instructing and educating, because it is not only sought to provide the future doctor with knowledge and develop skills in the capacity to form values,

emphasis is placed on ethics from this content, where from Caumatology, study methods are practiced whose results can affect the sensitivity of the patient and the family.

Not only are the general laws assumed, but also the didactic principles of Labarrere G and Valdivia G.,⁽⁹⁾ when revealing in their conception and execution the fundamental laws of pedagogy, which leads to the link between the social environment and the pedagogical process, and between its components.

- principle of the educational character of teaching,
- principle of the scientific nature of teaching,
- principle of affordability,
- principle of systematization of teaching,
- principle of the relationship between theory and practice,
- principle of conscious and active character of the students under the guidance of the teacher,
- principle of solidity in the assimilation of knowledge, skills and habits,
- principle of attention to individual differences within the collective nature of the teaching-educational process,
- principle of the audiovisual nature of teaching: union of the concrete and the abstract.

It is in this system of influences that personality is educated, however, the final result would not be achieved if the pedagogical task is not taken into account as the basic link in any conscious and planned process. According to the philosophical and psychological conception that is assumed, it is in the activity where interaction with objects occurs, and it is communication that nuances the interrelation between subjects.

The pedagogical task is conceived as the system of assignments aimed at the appropriation of the curricular contents by health teachers, which conceives the participation of the actors in the teaching-learning process, based on the planned objectives. This task must express the organic interrelations with a predetermined purpose of the academic, labor, investigative and extensionist for the comprehensive training of the future professional based on their relationship with the exercise of the profession, declared in the professional training model.

As explained, the teacher's performance is specified in the system of actions specific to the management of the teaching-learning process (planning, organization, execution, control and evaluation).

The strategy is also based on the pedagogical thinking of the Cuban National Hero José Martí Pérez, essentially the ideas related to the need to use the most appropriate means to carry out educational work. The strategy is also based on the educational thinking of Fidel Castro Ruz, in a very special way, on his conception of the importance of training general physicians capable of reversing different health conditions.

DISCUSSION

The professional development of health teachers is part of the need for higher education institutions to have qualified and productive personnel. Obsolescence is one of the reasons why universities are concerned about training human resources, updating knowledge with new techniques and work methods that guarantee efficiency.⁽¹⁰⁾

The process of improvement encourages health educators to publish in scientific journals. This is the cornerstone of the philosophy of science, based on original research that must be published; only in this way can new findings be verified and then added to the database called scientific knowledge.

This process is systematized from different angles of science, and has evolved in a positive way until today. It is worth highlighting the conceptualization provided by Añorga J et al,⁽¹¹⁾ on the process of professional improvement "it is the figure directed to various processes of labor resources, with the purpose of updating and perfecting the current and/or prospective professional performance, addressing deficiencies in training, or completing knowledge and skills not acquired and necessary for performance".

According to Bernaza G et al,⁽¹⁾ systematization is fundamental and offers valid criteria in practice, which requires overcoming:

- A learning process.
- Directed towards the profession of contents of the profession.
- Process where competencies for the profession are perfected, trained or enabled. • It involves the transition to higher levels in professional activity to face the educational reality.
- Contributes to increasing relevance in the profession.

Various researchers from the science of Pedagogical Education offer different operational definitions concerning the process of improvement, with elements that show other regularities from the professional profile such as Ramos V.,⁽¹²⁾ and Lescaille N.⁽¹³⁾

Permanent, continuous, systemic and integrative process.

Organized and evaluable.

Interdisciplinary and intersectoral vision.

Self-preparation as a valuable form.

Development of values and humanism.

Updated with national and international advances.

Consider the learning needs of the individual and the characteristics of the environment in which they develop.

The incorporation of ICTs

The purpose of human improvement, the development and consolidation of competencies, improving professional performance, increasing technological, scientific and investigative development, in accordance with the social mandate.

CONCLUSIONS

The theoretical foundation provided a model for the structure of the strategy with a dynamic and gradual interaction of actions in each of the stages in accordance with the characteristics. In addition, it contributed to the recognition of the links between the process of professional development and the use of ICTs to enhance the scope and impact of postgraduate forms used with the aim of improving the professional performance of health teachers in accordance with the historical moment in which science and technology are developing.

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