



Original article

The process of pedagogical training of the teachers of the Provincial Center of Medical Genetics

El proceso de capacitación pedagógica de los docentes del Centro Provincial de Genética Médica

O processo de formação pedagógica dos docentes do Centro Provincial de Genética Médica

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Received: September 22, 2022

Accepted: January 19, 2023.

ABSTRACT

In the present article, a study was carried out on the pedagogical training of the teachers of the Provincial Center of Medical Genetics who teach the subject Medical Genetics and work as teachers of the students of the University of Medical Sciences of Pinar del Río, in order to Share your professional experiences. In this sense, the main objective of the article was to characterize the current state of the training process for the pedagogical training of teachers of the Provincial Center of Medical Genetics. The investigative process was executed on a dialectical-materialist basis and methods of the theoretical, empirical and statistical-mathematical level were used, such as: the historical and logical, the system approach, modeling, analysis and synthesis, analysis documentary, observation, survey, interview and, from descriptive statistics, percentage analysis; The methodological triangulation technique was used, which allowed the diagnosis of the educational reality. For the development of the diagnosis, we worked with a sample made up of 15 teachers from the Provincial Center of Medical Genetics and 3 Genetics managers. The results obtained allowed us to verify the strengths and weaknesses that characterize the current state of the pedagogical training process of the teachers of the Provincial Center of Medical Genetics, necessary premises for the search for solutions that allow improving said process.

Keywords: characterization; training; teachers; pedagogical training; University.

RESUMEN

En el presente artículo se realizó un estudio sobre la formación pedagógica de los docentes del Centro Provincial de Genética Médica que imparten la asignatura Genética Médica y se desempeñan como profesores de los estudiantes de la Universidad de Ciencias Médicas de Pinar del Río, con el fin de transmitir sus experiencias profesionales. En tal sentido, el artículo tuvo como principal objetivo caracterizar el estado actual del proceso de capacitación para la formación pedagógica de los docentes del Centro Provincial de Genética Médica. El proceso investigativo se ejecutó sobre una base dialéctico-materialista y se emplearon métodos del nivel teórico, del nivel empírico y estadístico-matemáticos, tales como: el histórico y lógico, el enfoque de sistema, la modelación, el análisis y síntesis, el análisis documental, la observación, la encuesta, la entrevista y, de la estadística descriptiva, el análisis porcentual; fue utilizada la técnica de triangulación metodológica que permitió el diagnóstico de la realidad educativa. Para el desarrollo del diagnóstico se trabajó con una muestra conformada por 15 docentes del Centro Provincial de Genética Médica y 3 directivos de Genética. Los resultados obtenidos permitieron constatar las fortalezas y debilidades que caracterizan el estado actual del proceso de capacitación pedagógica de los docentes del Centro Provincial de Genética Médica, premisas necesarias para la búsqueda de soluciones que permitan mejorar dicho proceso.

Palabras clave: caracterización; capacitación; docentes; formación pedagógica; Universidad.

RESUMO

No presente artigo, foi realizado um estudo sobre a formação pedagógica dos professores do Centro Provincial de Genética Médica que ensinam a disciplina de Genética Médica e trabalham como professores dos alunos da Universidade de Ciências Médicas de Pinar del Río, a fim de para compartilhar suas experiências profissionais. Neste sentido, o objetivo principal do artigo foi caracterizar o estado atual do processo formativo para a formação pedagógica dos docentes do Centro Provincial de Genética Médica. O processo investigativo foi executado em uma base dialéctico-materialista e foram utilizados métodos de nível teórico, empírico e estatístico-matemático, tais como: o histórico e lógico, a abordagem do sistema, modelagem, análise e síntese, análise documental, observação, levantamento, entrevista e, a partir da estatística descritiva, análise porcentual; Foi utilizada a técnica de triangulação metodológica, que permitiu o diagnóstico da realidade educacional. Para o desenvolvimento do diagnóstico, trabalhamos com uma amostra constituída por 15 docentes do Centro Provincial de Genética Médica e 3 gestores de Genética. Os resultados obtidos permitiram verificar as potencialidades e fragilidades que caracterizam o estado atual do processo de formação pedagógica dos docentes do Centro Provincial de Genética Médica, premissas necessárias à procura de soluções que permitam melhorar o referido processo.

Palavras-chave: caracterização; treinamento; professores; formação pedagógica; Universidade.

INTRODUCTION

The new challenges that are imposed on humanity, characterized by the accelerated development that sciences have reached in the world, increasingly need human beings with the capacity to create, innovate, produce and manage knowledge, in correspondence with the demands it assigns said development. Assuming this criterion means recognizing the importance of training, as it allows updating in the object of the profession, in order to solve socio-labor problems with relevance. Hence, the importance given by the Cuban State to "(...) the training and development of the qualified labor force as a priority of the Cuban government for all that this implies for the future of the country" (Díaz-Canel, 2019).

In Cuba, the economic, political and social system aspires to the formation and development of the integral personality of its citizens, evidencing knowledge, qualities and values that advocate human improvement. Therefore, Higher Education in the 21st century, in terms of professional training, emphasizes: "(...) permanent education and systematic updating of university graduates, improving the performance of their professional and academic activities (...)" (MES, 2019, article 19, p. 43).

The dynamics of the current social historical context demands the deepening of the knowledge of the theoretical bases and the precepts that support training as a modality of permanent formation.

At the educational level, Añorga (2010) takes a new look at training and adds some features, such as: it combines the study of theoretical and generally schooled content with practical activities that contribute to the development of performance skills; it is always addressed to the educational needs to solve current or prospective practical problems of a labor entity; It is organized in educational programs, generally sponsored

by the employing entities, through structures designed and established for this purpose, sometimes with the participation of other scientific institutions and giving new characteristics to the concept that adjusts even more to the purpose of what is done in this work and the reasons why it is done.

Assuming the previous positions constitutes an important contribution to the understanding of training as a complex pedagogical process, susceptible to being understood in its durability and systematicity, which occurs during the working life of the education professional; As a general rule, it is the educational system itself that provides this service, through health care centers, providing the most capable specialists, either to enrich their knowledge in line with current scientific-technological changes, or to train those who have not been trained in previous teaching for the exercise of teaching.

Pérez and Aguilar (2018) state that: "(...) teachers who do not have initial pedagogical training and practice a second profession, for which they were not trained, must receive training". Accordingly, the comprehensive preparation of the professionals that make up the medical education cloisters continues to be one of the important components of the development of the professional pedagogical process in universities. These professionals require training and updating in knowledge, skills and values related to their essential didactic-methodological, investigative and guidance functions, which make their work more efficient and effective (Valerga and Trombetta, 2019; Vidal and Castillo, 2019).

Training is part of the management of human resources, as recognized by authors such as: Pérez and Aguilar (2020); Ore and Ore (2020). Being consistent with this criterion, the permanent training of the teacher as a fundamental center of Higher Medical Education depends largely on the consistent appropriation of the necessary contents to

effectively exercise the role that corresponds to them, as well as their degree of satisfaction within the pedagogical process. in which health professionals are trained (Milán, García, Cabrera, Hernández, Rodríguez, Miralles, 2020).

Particularly, the training category has been part of the socio-educational context as a creative activity as a process and as a result, which means providing teachers with tools to learn to develop their learning potential based on developing their autonomy, independence, critical judgment and a great sense of reflection (Zayas Acosta, Pérez Torres, Camejo León, Pacheco Ruíz, 2021; Pérez, Aguilar, Fernández, 2022).

Taking into account what was stated by the previous authors, it is agreed that training constitutes one of the essential functions to keep in mind in the search for the improvement of professional and human performance; It constitutes an activity aimed at professionals during their performance, or in order to improve their preparation for it, with the purpose of enabling them for their professional performance.

This function becomes more important for medical education teachers, given the characteristics of the services that the professionals they train will provide. Such a function calls for ongoing updating and training, which is only possible by developing effective training. However, for the previous authors, the concept is complex and deserves to continue being studied in depth.

The University of Medical Sciences (UCM) and its provincial centers are responsible not only for the initial undergraduate training of professionals who graduate from the different areas of scientific knowledge of this science. More than that, and in keeping with international trends, it also has the responsibility of keeping all its professionals updated and in permanent development, through continuous training. But the success

of this process requires, among other important factors, also permanent training of all teachers responsible for Medical Education.

Cuban medical education has made use of the training of its professionals, implementing new learning policies, based on the decentralization of the pedagogical processes of the UCM; Now, as a fundamental context, the Medical Genetics Centers of each municipality are in charge of teaching the second year students of the Medicine degree and the Provincial Center of Medical Genetics of the Pinar del Río municipality is in charge of preparing the all teachers who will teach the subject of Medical Genetics at the Provincial Center of Medical Genetics.

In this sense, the main objective of this article is to characterize the current state of the training process for the pedagogical training of teachers of the Provincial Center of Medical Genetics in Pinar del Río.

MATERIALS AND METHODS

The characterization was carried out during the first semester of the 2022-2023 school year at the Provincial Center of Medical Genetics of Pinar del Río. We worked with a census criterion, so the population was made up of 15 teachers from the Provincial Center for Medical Genetics and five Genetics managers. The research, in addition to having a descriptive nature, was based on the dialectical-materialist approach, which allowed knowing in a general sense the qualitative and quantitative changes in the subjects in the Provincial Centers-University context, revealing the current state of the training process. pedagogy of the teachers of the Provincial Center of Medical Genetics.

Likewise, the following methods of the theoretical level were used:

Historical and logical: it was used for the study of the normative documents related to the training process and its evolution in the provincial centers, to reveal the links of the training process in pedagogical contents of the teachers of the Provincial Genetics Centers that teach the Medical Genetics course in Pinar del Río.

The system approach; It allowed studying, throughout the investigative process, the structural elements that make up the training process for the pedagogical training of teachers of the Provincial Center of Medical Genetics, in order to establish the relationships between its components and contents. In addition, scientifically organize the ideas in the characterization of the educational reality.

The modeling: made it possible to characterize the current state of the training process for the pedagogical training of the teachers of the Provincial Center of Medical Genetics, based on the main relationships established between the different components and the established dimensions and indicators.

Analysis and synthesis: in their dialectical unity they made it possible to interpret facts and data, systematize the information and specify relationships that allowed characterizing the current state of the training process for the pedagogical formation of the teachers of the Provincial Center of Medical Genetics.

As essential empirical level methods in the investigation were used:

The documentary analysis: included the review of the reports of the control visits to classes, the minutes of the board of directors of the Provincial Center of Medical Genetics, the individual work plan of the teachers, the study of the current training strategies in the Centers Provincial Genetics, which provided valuable information, both for the diagnosis

and for the characterization of the current state, which were used to obtain authentic and reliable information in the investigation.

The observation: it was carried out in classes, to identify potentialities and insufficiencies of the teachers of the Provincial Genetics Centers that teach the subject of Medical Genetics.

The survey: it was used to obtain information from the teachers of the Provincial Centers of Medical Genetics, to know their opinions in the diagnostic stage of the training and in the evaluation of the results.

The interview: it was applied to the directors of the Provincial Centers of Medical Genetics, with the objective of involving them in the research, to know their opinions in the diagnostic stage of the training, in the evaluation of the results and the preparation that the same they receive in their pedagogical actions.

For the processing of the information, the statistical-mathematical method was used, with techniques of descriptive statistics such as percentage analysis and the Likert scale (Hernández and Mendoza, 2018), useful for describing the behavior of the explored indicators, which would allow the characterization of the current state of the training process for the pedagogical training of the teachers of the Provincial Center of Medical Genetics.

The methodological triangulation technique was also used to search and find the points of coincidence and discrepancy in the current state of the training process, for the pedagogical training of the teachers of the Provincial Center of Medical Genetics.

RESULTS

The application of the aforementioned instruments had as main purpose to characterize the current state of the training process for the pedagogical formation of the teachers of the Provincial Center of Medical Genetics.

To measure the indicators, the five-point Likert scale was used, with the categories of: Excellent (5), Very Good (4), Good (3), Regular (2), Bad (1).

The establishment of a scale to measure the indicators allowed obtaining an evaluation of each subject involved in the study, when applying the investigative methods.

Based on the operational definition constructed, the process of operationalizing the variable under study was carried out. This made it possible to determine the dimensions and indicators that comprise it, to facilitate its measurement process.

The following dimensions and indicators were taken into account:

Two dimensions were declared (table 1): conception of training as a strategic pedagogical process and the pedagogical training of teachers.

Table 1- Dimensions and indicators

I. Conception of training as a strategic educational process	I.1- Status of training planning.
	I.2- Status of the training actions with the diagnosis of the needs and the results of the performance evaluation.
	I.3-Level of the content of the training to the demands of the main pedagogical activity that the teacher will develop.
	I.4- Degree of use of participatory techniques to activate the teaching process.
	I.5- Degree of linkage of theoretical-practical training activities.
II. Pedagogical training of teachers	II.1- Degree of mastery of the content.
	II.2- Level of mastery in setting the objectives.
	II.3- Degree of mastery in the selection of methods and means.
	II.4- Mastery level to evaluate the class.

The conception of training as a pedagogical process of a strategic nature refers to the existence of an action plan of a pedagogical nature that integrates the educational influences of the Provincial Center for Medical Genetics and the correspondence between planning and adequacy of the implementation of the actions. with the results of the evaluation of the teachers' performance, as well as with the specific knowledge and skills necessary to direct the teaching-learning process of the subjects they teach in their new functions as teachers.

Pedagogical training of teachers: refers to the expression in practice of mastery of the didactics components, as well as the specific knowledge and skills necessary to direct the teaching-learning process of the subject of Medical Genetics.

Results obtained from the document review

The minutes of the board of directors of the Provincial Center of Medical Genetics from the year 2019 to the year 2022 and the training strategies for the professors who teach the subject Medical Genetics, to the second-year students of the Medicine career, were reviewed, obtaining the following results:

- In the planning of these activities, very little is taken into account the actions directed to the didactics of the Higher Education class, since agreements are not made aimed at the visit and monitoring of the teaching activity.
- In the analysis of the annual work strategy, it was possible to appreciate few theoretical-practical activities in its planning, since the classes are taught most of the time in polyclinics, not in the Provincial Center of Medical Genetics. There are few methodological guidelines for the treatment of topics related to the

didactics of the Higher Education class, in particular of minutes that reflect the analyzes carried out. Observation guide to teaching activities.

Technique: class observation.

Instrument to use: guide for class observation.

Objective: to verify the mode of action of teachers to conduct the teaching process in the discipline they teach.

No	INDICATORS TO EVALUATE	Scale				
		1	2	3	4	5
1	Motivate with current and novel situations.					
2	Correct formulation of the objective of the class.					
3	Appropriate use of methods and procedures.					
4	Close problem-objective-content relationship.					
5	Use of innovative teaching aids.					
6	Evaluation in correspondence to the content and the proposed objective.					
7	Independence from the lesson plan and mastery of updated content.					
8	Explain the content taking individual differences into account.					
9	Linking theory with practice.					
10	Mastery over students.					

Results of the class observation guide

Four teachers were observed in class.

Sujetos	1	2	3	4	5	6	7	8	9	10	Valor por sujetos
1	2	2	2	2	3	3	4	3	2	4	27
2	3	2	2	4	2	2	3	3	3	4	28
3	2	3	3	2	2	2	3	4	3	3	27
4	3	2	3	2	3	4	4	3	2	4	30
Valor por elemento	10	9	10	10	10	11	14	13	10	15	112
	2.5	2.2	2.5	2.5	2.5	2.7	3.5	3.2	2.5	3.7	

Survey guide for teachers who teach the subject Medical Genetics

Objective: to obtain information on the criteria of teachers who teach the subject of Medical Genetics in healthcare centers about the training process they receive.

Maximum Score: 200

Total subject score: 112

$112/200=0.56=56\%$

Interpretation of the results of the observation to classes

1. In 50% of the classes it was found that there are difficulties in achieving adequate motivation (indicator 1).

2. In 75% there is difficulty in determining the main objective of the class (indicator 2).

3. In 50% of the classes' difficulties were found in the use of appropriate methods and procedures (indicator 3).

4. 75% of the classes showed an inadequate problem-objective-content relationship (indicator 4).

5. In 50% of the classes' difficulties were found in the use of appropriate teaching aids (indicator 5).

6. Indicators 6 and 9 were located at 50%, observing difficulties in their behavior.

7. Only in indicators 7, 8 and 10, related to independence of the lesson plan and mastery of updated content, attention to individual differences and control over students was evaluated as good and very good in 100% of the teachers.

1. The training activities respond to your needs as teachers.

___Excellent ___Very Good ___Good ___Fair ___Poor

2. The training activities respond to their needs as teachers from didactics.

___Excellent ___Very Good ___Good ___Fair ___Poor

3. The didactic and pedagogical contents are worked on, in correspondence with their pedagogical needs.

___Excellent ___Very Good ___Good ___Fair ___Poor

4. The teaching activities carried out use participatory techniques to activate the teaching process.

___Excellent ___Very Good ___Good ___Fair ___Poor

5. A relationship is established between the didactic components in the process.

___Excellent ___Very Good ___Good ___Fair ___Poor

6. The use of methods and means is made in correspondence to new topics and to the rest of the components of the process.

___Excellent ___Very Good ___Good ___Fair ___Poor

Subjects	1	2	3	4	5	6	7	Value by subjects
1	3	2	2	2	3	2	2	16
2	3	2	4	4	2	3	2	18
3	2	3	2	3	2	3	3	18
4	2	2	2	3	4	2	2	17
5	2	2	2	2	2	2	4	15
Value per element	12	11	12	14	13	12	13	126
	2.4	2.2	2.4	2.8	2.6	2.4	2.6	18

60% (3) of teachers regularly evaluate indicators 5, 6 and 7, evidencing their deficiencies in the use of didactic components in the decent educational process.

Interview guide for managers of the Provincial Center of Medical Genetics of Pinar del Río

7. The evaluation system is carried out taking into account the main objectives of the class.

___Excellent ___Very Good ___Good ___Fair ___Poor

Results of the application of the survey to teachers who teach the subject Medical Genetics:

Total Score= 87

Maximum Score= 175

$87/175 = 0.497 = 50\%$

Interpretation of the results of the survey of teachers who teach the medical genetics subject:

1. Of the five teachers surveyed, 3 (60%) evaluate indicator 1 to be regular, verifying that the training given to them does not correspond to their needs.

2. In the analysis of indicators 2 and 3, four teachers (80%) consider that the training activities do not deal with topics that allow them to develop aspects of the teaching-educational process from the pedagogical and didactic aspects.

3. 40% (2) of teachers present difficulties in the use of participatory techniques to activate the teaching process.

Objective: to know the criteria of the directors about the training process in which the teachers who teach the subject of Medical Genetics participate in the healthcare centers.

Request for cooperation:

Your collaboration in the research being carried out is requested, providing your criteria freely and with absolute sincerity. Thank you so much.

Questionnaire

1. What educational training activities are carried out at the Provincial Center of Medical Genetics?

2. What is the purpose of the pedagogical topics covered in the training activities?

3. What output is given to the pedagogical and didactic contents in these training activities?

4. What activities link theory to practice in this training?

5. How do you assess teachers' mastery of pedagogical content in their professional activity?

Results of the application of the interview to the directors of the Provincial Center of Medical Genetics

The instrument is based on grounded theory. An interview was conducted with three directors of the Provincial Center of Medical Genetics, which is based on a script of open questions.

To tabulate it, the following steps were followed:

1. Integrate the answers by questions
2. Segment responses
3. Identify and define categories
4. Encode
5. Rescue of evidence
6. Reconceptualization
7. Conclusion and verification

Interpretation of the information from the interview with the directors of the Provincial Center of Medical Genetics

After integrating the answers and segmenting them, the following general categories with their codes were identified: Pedagogical Training (CP), Teaching-Learning Process (PEA), Didactic Components (CD).

Category	Definition	Code	Evidence
Pedagogical Training	Constant and permanent activity that commits both the teacher and the	PC	Methodological meeting, conferences, diplomas, courses.

	student, to improve and make the teaching-learning process effective.		
Teaching-Learning Process	Space where the main protagonist is the student and the teacher has the role of facilitator of the learning process.	EAP	The class (lectures, seminars, theoretical-practical classes).
Didactic Components	Relationship established between the objectives -contents- activities - material resources- organization and evaluation.	CD	Class.

The individual interview was applied to three directors of the Provincial Center of Medical Genetics taken as a sample in the investigation; The processing of information from this technique provided the following results:

Question 1. Pedagogical training activities carried out in the center.

100% of the managers interviewed put the following as examples of training activities: methodological meeting, diploma courses, conferences, conferences and pre-day courses; In addition, they refer that "these activities are given for the preparation and

updating of contents related to the function of the center: mainly based on its investigative component. They also state that: "the topics related to teaching are very general and do not specify in the didactic components".

Question #2. Objectives of the pedagogical topics covered in the training activities.

100% of the managers interviewed state that the objective of the pedagogical themes is aimed at establishing organizational strategies of the teaching process.

Question #3. Output that is given to the pedagogical and didactic contents in these training activities.

75% (2) of the managers refer that: "as part of the pedagogical preparation that is provided to teachers is the delivery of a proposal for classes by subject matter" and one manager (25%) states that "teachers in their self-preparation and taking into account the characteristics of the assigned group must make adjustments to the class folder that is delivered to them".

100% state that in the training activities "aspects related to the attendance and evaluation of the students are mainly ventilated".

Question #4. Activities related to linking theory with practice.

The managers interviewed (100%) state that "updated information on the diagnosis and treatment of genetic diseases is addressed, the most used techniques, resources that could be used in teaching activities".

Question #5. About teachers' mastery of pedagogical content.

100% state that "there are weaknesses in terms of teachers' mastery of pedagogical content, since they do not have pedagogical

training"; In addition, they refer that "from a diagnosis and the individual characteristics of each teacher, the deficiencies in terms of pedagogical and didactic content must be taken into account."

DISCUSSION

The analyzes carried out show that the pedagogical training of the teachers of the Provincial Center of Medical Genetics presents a group of deficiencies, by not taking into account that the training is a pedagogical process, since among those who participate in it there is a set of practices, intersubjective relationships and knowledge that occur in order to build knowledge, clarify values and develop skills for the development of their professional activity (Palacios, 2000).

At a particular level, this pedagogical process is developed as a teaching-learning process. This research assumes the teaching-learning process as proposed by researchers such as Bermúdez and Pérez (2004), cited by Abreu and Soler (2015), who define it as "The process of interaction between the teacher and the students through which the teacher directs learning through adequate activity and communication, facilitating the appropriation of the historical-social experience and the growth of students and the group, in their process of personal and collective construction" (p. 176)

In this work, taking into account the determined insufficiencies, we agree with Infante & Breijo (2017) in terms of designing training to improve the performance of human resources; in this case, the teachers of the Provincial Center of Medical Genetics, to enhance the training of second-year students of the Medicine career, as part of their professional training. The training of teachers of the Provincial Center of Medical Genetics is also considered as a systemic,

planned, flexible and coherent process with their professional performance, in which the assistance centers become agencies of excellence in training that manifests interdisciplinarity and research. for the transformation of the actions of second-year students of the medical career, as protagonists of the process they develop.

The analyzes carried out in the present investigation allowed us to conclude that an adequate characterization of the training process for the pedagogical formation of the teachers of the Provincial Center of Medical Genetics allows to project, organize, execute and evaluate the development of teaching activities, in such a way that it contributes to the training of a competent professional and in tune with the requirements of the established professional model.

Addressing the training process for the pedagogical training of teachers of the Provincial Center of Medical Genetics in the current context of scientific-technical and technological progress, in all branches of Medicine, implies taking into account the need to increase the appropriation of knowledge, the development of skills and values that allow the future medical professional to develop successfully in the profession and achieve the objectives that society confers on them.

For this process to be effective, the UCM must respond to the dynamics of the educational reality of this decentralization process, it must direct postgraduate education, in order to resolve the fundamental contradiction that occurs. In this sense, it must contribute to meeting the needs of the teachers of the Provincial Center of Medical Genetics through permanent and continuous training, a consequence of social development and multilateral progress of human resources; that is, so that they can assume the new and constant changes that occur throughout their professional lives,

which demand the incorporation of more qualified specialists.

There is a coincidence in terms of recognizing the legal institutionalization of postgraduate education through the Postgraduate Regulations of the Ministry of Higher Education of the Republic of Cuba (RM 140, 2019, art. 19, p. 43), when establishing the concept of training , for special state interest, aimed at reaching higher levels of efficiency, quality and achieving an impact in the preparation for the improvement of the labor performance of the cadres and workers in the services they provide.

It is included in this research, likewise, that in order to contribute to the development of the training of the teachers of the Provincial Center of Medical Genetics, it is necessary to start from the diagnosis of individual learning needs and potentialities of each one of the teachers of the Provincial Center of Medical Genetics. , as well as compliance with the individual development plan of each of them, which must be prepared based on their learning needs and with the intention of knowing the training received and related contents.

The analyzes carried out in the present investigation allowed us to conclude that an adequate characterization of the training process for the pedagogical formation of the teachers of the Provincial Center of Medical Genetics allows to project, organize, execute and evaluate the development of teaching activities, in such a way that it contributes to the training of a competent professional and in tune with the requirements of the established professional model.

Addressing the training process for the pedagogical training of the teachers of the Provincial Center of Medical Genetics of Pinar del Río in the current context of scientific-technical and technological progress, in all branches of Medicine, implies taking into account the need to raise the appropriation

of knowledge, the development of skills and values, which allow the future medical professional to function successfully in the profession and achieve the objectives that society confers on them.

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Conflict of interests:

The authors declare not to have any interest conflicts.

Contribution of the authors:

The authors participated in the design and writing of the work, and analysis of the documents.

Cite as

Miñoso Pérez, S., Aguilar Hernández, V., & Blanco Pérez, I. (2023). The process of pedagogical training of the teachers of the Provincial Center of Genetics. *Mendive. Revista de Educación*, 21(2), e3213.
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