



ORIGINAL ARTICLE

## Critical analysis of the Pediatric Dentistry program in the 4th year of the Stomatology Career

Análisis crítico del programa de Odontopediatría en el 4to año de la Carrera de Estomatología

Ana Lina Afre-Socorro<sup>1</sup>✉ , Norma de la Caridad Téllez-Tielve<sup>1</sup> , Yaneisis García-Molina<sup>2</sup> 

University of Medical Sciences of Pinar del Río. Antonio Briones Montoto Stomatological Clinic in Pinar del Río. Pinar del Río, Cuba.

**Received:** November 15, 2022

**Accepted:** December 12, 2022

Published: March 7, 2023

**Citar como:** Afre-Socorro AL, Téllez-Tielve N de la C, García-Molina Y, Análisis crítico del programa de Odontopediatría en el 4to año de la Carrera de Estomatología. Rev Ciencias Médicas [Internet]. 2023 [citado: fecha de acceso]; 27(2023): e5802. Disponible en: <http://revcmpinar.sld.cu/index.php/publicaciones/article/view/5802>

### ABSTRACT

**Introduction:** the training of the stomatologist requires the management of the quality of the curriculum concretized in a coherent and systematic methodological work.

**Objective:** to analyze from a critical approach the program of the subject Pediatric Dentistry for the 4th year of the Stomatology course.

**Methods:** a qualitative descriptive transversal study was carried out during the first semester of the 2022 course. Theoretical and empirical methods were used, such as documentary review, review of the Pediatric Dentistry course syllabus and its P1 by expert teachers, considering the components of the educational teaching process given by the problem, objectives, contents, methods, means, organizational forms of teaching and evaluation.

**Results:** it was determined that the 136 hours dedicated to education at work are sufficient for the acquisition of elementary skills in child care. Weaknesses were found in the program related to the organizational forms, teaching methods and means, and the evaluation system. It was identified that no subject presents seminars as a key instrument for the preparation and evaluation of the student.

**Conclusions:** in the program analyzed, the contents are well designed, as well as the curricular strategies proposed to implement in each subject. It requires modifications in the organizational forms of teaching, which will have a positive impact on the productive methods and the evaluation system. It also requires a relevant basic literature, updated and coherent in its contents with the rest of the literature to be used.

**Keywords:** Pediatric Dentistry; Curriculum; Program Evaluation; Professional Training.

## RESUMEN

**Introducción:** la formación del estomatólogo requiere la gestión de la calidad del currículo concretada en un coherente y sistemático trabajo metodológico.

**Objetivo:** analizar desde un enfoque crítico el programa de la asignatura Odontopediatría para el 4to año de la Carrera de Estomatología.

**Métodos:** se realizó un estudio descriptivo transversal de corte cualitativo, durante el primer semestre del curso 2022. Se utilizaron métodos teóricos y empíricos como la revisión documental, revisión del programa de la asignatura Odontopediatría y su P1 por profesores expertos, considerando los componentes del proceso docente educativo dados por el problema, objetivos, contenidos, métodos, medios, formas organizativas de la enseñanza y evaluación.

**Resultados:** se determinó que las 136 horas dedicadas a la educación en el trabajo resultan suficientes para la adquisición de las habilidades elementales en la atención al niño. Se constataron debilidades en el programa relacionadas con las formas organizativas, los métodos y medios de enseñanza y el sistema de evaluación. Se identificó que ningún tema presenta seminarios como instrumento clave para la preparación y evaluación del estudiante.

**Conclusiones:** en el programa analizado, los contenidos están bien diseñados, así como las estrategias curriculares propuestas para implementar en cada tema. Requiere modificaciones de las formas organizativas de enseñanza, lo que repercutirá positivamente en los métodos productivos y el sistema de evaluación. Precisa además una literatura básica pertinente, actualizada y coherente en sus contenidos con el resto de la literatura a utilizar.

**Palabras Clave:** Odontopediatría; Programas de Estudio; Evaluación de Programas; Análisis Cualitativo; Formación Profesional.

## INTRODUCTION

One of the most substantial goals of today's universities is to respond to the challenges posed by the complex contemporary context. Its essential purpose is to graduate professionals with deep basic training to meet national and international commitments, whose performance satisfies the teaching, health care and research needs at the different levels of care.<sup>(1)</sup>

In order to achieve the correct formation of the health professional needed by the State, the Medical University has the mission of integrally forming revolutionary professionals, producing knowledge, technologies and technological innovations, developing university extension and enforcing the curricula of the careers.<sup>(1)</sup>

In the university environment, different processes are developed that contribute to this purpose: teaching, research and university extension or linkage with society as it is also called, which are closely related. The teaching process, given its nature, has the particularity of integrating all of them; for this reason there is a permanent concern in the educational community regarding its necessary improvement.<sup>(2)</sup>

Current undergraduate training programs should be in constant improvement as an essential element in the training of quality health professionals needed by the country and for the successful fulfillment of international commitments.<sup>(3)</sup>

The Pediatric Dentistry course is aimed at providing students with the scientific foundations that allow them to develop logical deductions to be able to perform preventive, curative and emergency actions in the population under 19 years of age; they will be part of the health team, allowing them to know the conditions that occur in this population to prevent, diagnose, treat or refer those that require a specialized level of care due to their complexity.<sup>(4)</sup>

This subject develops participatory pedagogical techniques in order to link theoretical knowledge with practice through on-the-job education, which allows developing students' skills, increasing their independence in clinical work and stimulating them for self-improvement, individual study and scientific research.

In accordance with the above, the objective of the present study was to analyze from a critical approach the program of the subject Pediatric Dentistry for the 4th year of the Stomatology course.

## METHODS

A descriptive transversal study of qualitative cut was carried out during the first semester of the 2022 course.

Theoretical and empirical methods were used, such as documentary review, review of the Pediatric Dentistry course syllabus and its P1 by expert teachers, considering the components of the educational teaching process given by the problem, objectives, contents, methods, means, organizational forms, etc.

The study was carried out in the first semester of the 2022 Theoretical and empirical methods were used, such as documentary review, review of the pediatric dentistry course syllabus and its P1 by expert teachers, considering the components of the educational teaching process given by the problem, objectives, contents, methods, means, organizational forms of teaching and evaluation.

All these components were studied taking into account that the subject is aimed at providing the student with scientific foundations that allow him/her to develop logical deductions to be able to perform preventive, curative and emergency actions in the population under 19 years of age for their comprehensive care in close linkage of theory and practice.

Logical thinking procedures were used, including analysis-synthesis and induction-deduction, and normative documents of the Ministry of Higher Education, study program of the subject, and other methodological documents were reviewed.

A round table discussion was held with expert professors of the Stomatology course to analyze the Pediatric Dentistry course syllabus and its P1.

The research was approved by the Scientific Research Ethics Committee and Scientific Council of the institution.

## RESULTS

The Pediatric Dentistry course is taught in the 7th semester (first semester of the 4th year) of the Stomatology course with a duration of 18 weeks. The objective of this course is to provide the student with basic knowledge and fundamental practical skills that the Basic General Stomatologist must master in order to take care of children under 19 years of age.

At the end of the semester, the student should be prepared in dental surgery, extractions and endodontics, which will enable him/her to face the care of children under 19 years of age with greater skills.

Among the skills that the student should have are: psychological management of the child, dental surgery in young primary and permanent teeth, preparation of cavities in primary teeth and endodontic treatments, considering the morphological differences with permanent teeth, a topic of vital importance in clinical practice.

Likewise, they should diagnose dental trauma according to clinical and radiographic characteristics, determine the conduct to follow in each of the traumas, know indications and contraindications of dental extraction in children, specific effects of premature tooth loss, indications of prosthesis in pediatric dentistry patients, treatment of the most frequent periodontal diseases in children and adolescents and basic elements of interceptive orthodontics through the diagnosis and treatment of deforming oral habits at the primary health level.

Within the personal components (teachers and students), it is necessary that both complement each other and manifest themselves correctly during the teaching-learning process, through interactive relationships of instruction and interaction, based on humanistic and bioethical principles, with a scale of values at the height of the times and contemporary social urgencies, which is achieved in the teaching scenario because the teacher directs and controls the activity and the student executes, establishing a marked relationship between the two.

The teacher tutors two or three students in the 18 weeks and manages to attend to individual differences.

The non-personal components are: Problem, Objectives, Contents, Methods, Means of teaching, Forms of Teaching Organization and Evaluation.

For a better understanding, we will address them below:

### **The Problem**

Society creates educational institutions in order to solve a problem of enormous transcendence, a problem that is called social task and consists of the need to educate citizens, both in thoughts and feelings, in correspondence with the most important values of society.

The problem is not defined, so the authors propose to state it as: the need to train a Basic General Stomatologist with sufficient scientific preparation and high ethical principles to address the problems concerning oral health in outpatient care for children under 19 years of age.

The need, the social task, generates the first characteristic of the educational teaching process: the Objective.

## The Objectives

The educational objectives for the subject's program should be dealt with in greater depth, taking into account the humanistic load that should characterize the career and especially the treatment of children, who are extremely difficult to care for because fear dominates their actions.

It is contemplated that the formation of values is peremptory, so that the issue of educational objectives could be dealt with in greater detail and insist on the development of an adequate doctor-patient communication relationship, as well as bioethical aspects.

As an educational objective it could be proposed: to raise the scientific preparation of the student in order to solve social needs by applying the principles of socialist medical ethics and bioethics, to carry out his activity with high industriousness, humanism, responsibility, sensitivity, to recognize the importance of disease prevention and health promotion in his actions, among others, thus achieving the satisfaction that represents guaranteeing the general health of the population he attends.

The instructional objectives are correctly stated, the knowledge to be achieved by the student is approached in an accessible and systemic way. It starts with the educational and re-educational procedures for the conditioning of the child in stomatological actions, the treatment of dental caries, traumatic lesions, periodontal, fundamental oral habits, as well as diagnosing and treating acute and chronic oral diseases, their complications and emergencies in children, all this basic knowledge is essential for the training of a Basic General Stomatologist (EGB).

## Contents

The contents are distributed in 18 weeks, with 8 topics, which are addressed in two lectures, four hours of case discussion, 8 workshop classes, one preclinical and two practical classes.

Each topic has a designed system of knowledge and skills; they reflect an adequate scientific and systematic approach, but the depth with which the contents are approached is insufficient due to the lack of other organizational forms.

## The Method

In the program, the productive or problémicos methods are applied in an insufficient way, since all the subjects are approached for the first and only time in the workshop classes, with which the knowledge is not consolidated, concretized, nor deepened in the students.

## Organizational forms

The course has 162 hours in total, of which the student will dedicate 136 hours to outpatient care, two hours to lectures, one hour to a preclinical, two hours to a practical class, four hours to case discussion, 16 hours to a workshop class, two hours to a partial exam and two hours to a final exam, the program does not include seminars or independent studies.

The seminar is an activity that closes the system of classes on a certain topic; as a form of evaluation, it controls the quality of the preceding classes.

After the first five topics, an inter-semester exam (PIS) is applied to the student without having taken a seminar on any topic, a factor that is detrimental to the acquisition of knowledge by the students and the academic results of this partial test, which has been observed in several courses and is therefore considered a weakness of the program.(Table 1)

**Table 1.** Distribution of the time fund in hours, by topics and forms of teaching organization.

Subj ect No.	Title	Theoretical		Examinations On- the-job				Sub total	Exams	Total
		C	CT	PC	CP	DC	Clínic			
<b>I</b>	Introduction to Pediatric Dentistry and Psychological Management of the Child	1h	0	0	0	0	8h	8h	0	9h
<b>II</b>	Diagnosis in the Pediatric Dentistry Patient	0	0	1h	0	0	7h	8h	0	8h
<b>III</b>	Dental Surgery in Young Temporary and Permanent Teeth	0	2h	0	1h	0	15h	16h	0	18h
<b>IV</b>	Endodontic Treatments in Young Temporary and Permanent Teeth	0	2h	0	0	1h	15h	16h	0	18h
<b>V</b>	Traumatic Injuries of the Teeth	0	4h	0	0	2h	30h	32h	2h	38h
<b>VI</b>	Surgical Procedures in the Pediatric Dentistry Patient	0	2h	0	0	0	16h	16h	0	18h
<b>VII</b>	Temporary and Young Permanent Teeth	0	2h	0	0	0	16h	16h	0	18h
<b>VIII</b>	Interceptive Orthodontics	1h	2h		1h	1h	14h	16h	0	19h
<b>IX</b>	Rehabilitation in Pediatric Dentistry	0	2h	0	0	0	8h	8h	0	10h
	Final Exams	0	0	0	0	0	0	0	6 h	6 h
<b>Total</b>		2h	16h	1h	2h	4h	129h	136h	8h	162h

The 136 hours dedicated to on-the-job education are sufficient for the acquisition of basic skills in child care.

The hours dedicated to theory are insufficient, as shown in the table with a total of 18 hours in 18 weeks, so that the student does not manage to deepen the knowledge that is worked on in the workshop class, which is not preceded by an independent study of the subject to be treated.

This is an objective factor that conspires against the student's performance in his practical activity, since he lacks the knowledge and elements necessary to solve all the clinical cases that are presented in on-the-job education.

### Media

The course uses several means: the dental chair, instruments and dental materials in outpatient care. The Manual of Pediatric Dentistry (basic text) and numerous options of complementary literature are used as bibliography.

The difficulty in this aspect lies in the inconsistency and insufficiency in addressing the contents of topics IV and V in the Manual of Pediatric Dentistry with respect to the complementary literature.

There is a lack of depth in the basic text when addressing the different topics due to the lack of elements in the contents, which leads to difficulties in the acquisition of knowledge by the students.

### Evaluation

In ambulatory care, the daily evaluation of the subject is carried out taking into account the educational objectives such as: personal appearance, correct use of the uniform, punctuality and doctor-patient relationship, and the instructional objectives that cover the skills developed in ambulatory care. The evaluation of both objectives constitutes the evaluation of the Education at Work, which together with the evaluation of the workshop classes, make up the student's course work.

After the first five topics, a PIS is developed and finally a practical theoretical exam and a final theoretical exam are applied. The weakness at this point is that students are confronted for the first and only time with the content of each topic in a workshop class, obtaining only this evaluation of the topic, which can lead to poor academic performance.

### Curricular strategies

The subject contributes to the achievement of the curricular strategies in each organizational form according to the topic to be covered:

- Curricular strategy for the educational and ethical work of the students.
- Curricular strategy for communication with the foreign language: English language.
- Curricular strategy on the application, indication and uses of Natural and Traditional Medicine (NTM).
- Curricular strategy for the development of skills in administrative functions and economic and legal training.

## DISCUSSION

According to Fernández García,<sup>(5)</sup> the program of the subject should allow students to participate in their learning, to interact, participate or construct their own knowledge through critical analysis, the search for solutions, and analogous thinking as the center of the teaching-learning process.

According to the first great law of Didactics on the school-society relationship, the program manifests itself satisfactorily since it involves knowledge with attention to the individual. The knowledge and skills acquired by the student throughout the semester allow him/her to solve oral health problems in children under 19 years of age.<sup>(4,6)</sup>

The second great law of Didactics refers to the relationship between the components of the educational teaching process, it is given by the personal and non-personal elements of the process.<sup>(4,6)</sup>

In a study carried out by Vinent Gonzalez,<sup>(7)</sup> the program of the Clinical Surgery course was analyzed. In this study, the learning of the diagnosis of stomatological diseases, treatment and health promotion and prevention actions, in a social and community context, is inferred as a **problem**.

Among others, the following actions are proposed

- definition of the scientific problem of the branch of knowledge linked to the object of the profession raised in the professional's model and derived from the social task or problem outlined in that model.
- socialization of the approach process for the solution of the problem with the purpose of improving and modifying the strategies that were not working.

Rojas Alcina et al.<sup>(8)</sup> also propose the following methodological steps with respect to the problem or social task of the educational institutions:

- Critical analysis of the professional problems expressed in the professional's model and whether these correspond to the demands of the teacher's objectives and functions.
- Determination of the system of skills and its relationship with the general objectives and by years and the professional problems to be solved. In the present study, the problem to be solved is not defined.

Knowing that the problem exists as a social need, and the objective as a need to solve it, the oral health situation in children under 19 years of age and the need to prevent, treat and rehabilitate in order to solve the health situation in this population should be reflected.

The professional training of the stomatologist should include the delivery of knowledge, skills and values; the programs should address **objectives** that allow the development of these aspects. The important values to be achieved in the dentist's profile should be addressed during professional education so that they are recognized and appreciated by the student as a fundamental aspect of his or her training.

Evaluating the values training that the student is receiving is complex. Instruments are usually designed to measure the acquisition of knowledge and the development of skills.<sup>(8,9)</sup>

The clinical scenario that is generated in the teaching of dentistry, in which undergraduate students see patients, closely supervised by their teachers in small groups, favors the appreciation of the incorporation of significant values for the profession.

Humanism is one of the fundamental pillars of medical care as it is intimately linked to the principles of bioethics, which imply the obligation to act for the benefit of others, promoting their legitimate interests and suppressing prejudices and intentionally refraining from actions that may cause harm or harm others, respectively.



The educational objectives for the Pediatric Dentistry subject program should be dealt with in greater depth because the objectives constitute the most important category of the teaching process, in this case the educational objectives are elaborated from the social task that society establishes for the graduate, we must deepen in the formation of values because the formative function of the University is not limited to knowledge and skills but also to the formation and consolidation of values, so the University must become increasingly aware that the challenges are academic and scientific, moral and ethical.

Regarding the contents, Chaple Gil et al.,<sup>(10)</sup> recognize as excellent the basic literature of the D curriculum of the Stomatology career, which includes globally recognized texts, with deep and complete contents, treated in a very clear and precise manner.

Hernandez Infante et al.,<sup>(2)</sup> state that the minimum support bibliography for the different areas of knowledge must be updated and in accordance with the social needs of the moment, as one of the characteristics that the new study programs must have.

The content is that component of the teaching process that determines what the student should appropriate in order to achieve the objective; it groups together the knowledge system that is the purpose of the study and the skills that reflect the student's way of acting with that objective. The contents of the subject are considered satisfactory because they address all the knowledge that a GBS should master to solve oral health problems in the population under 19 years of age.

Of the non-personal components, the teaching **method** is the most dynamic. Teaching methods are qualified as active when the teacher's activity encourages the learner to take a leading role in his or her learning through responsible participation, reflection in the solution of problems in real and simulated conditions (with preference for the former), creative activity and team work.<sup>(1)</sup>

Considering that the method constitutes the mode of action of the teacher and students within the teaching-educational process (PDE), and that it expresses the dynamics of this process, the participation of students in theoretical activities is considered insufficient, sufficient linguistic and knowledge development is not achieved because each topic is taught in a single workshop class, and effective interaction with students is not achieved.

The teaching process presents different **organizational forms**; the following are considered as the main ones: class, study practice, work practice, research work, students' self-preparation and consultation.<sup>(11)</sup>

According to García Hernández et al.,<sup>(12)</sup> the seminar constitutes a true active learning group, since the members do not receive elaborated information, but their inquiry is left to them, to their responsibility, in a climate of reciprocal collaboration.

In the study of Rodriguez Perez et al.,<sup>(13)</sup> it is stated that the seminar as a form of teaching organization, allows a teaching-learning, developmental and educational process; that the student seeks and explores knowledge from reflective and independent positions.

Likewise, current pedagogical conceptions advocate a participative character of teaching where the student assumes an increasingly leading role in the conduction of his learning, so it has become very common in recent years the application of participative techniques through seminars.<sup>(13)</sup>

In contrast to what has been found in the literature, the program analyzed does not include seminars or independent studies, and the hours devoted to theory are insufficient. All this is detrimental to the acquisition of knowledge and academic results of the students, which has been found in several courses and is considered a weakness of the program.

The Seminar is the organizational form of the Educational Teaching Process in which students deepen the content of the subject they are studying and through their experience, in a clear and precise way, they understand the crucial general aspects of such content.

In the program of a subject, the organizational form of a seminar is fundamental because it broadens and consolidates the student's field of knowledge, provides tools for the solution of problems and develops their capacity for expression. Therefore, it is considered a weakness that this organizational form is not addressed in any subject of the program.

Vinent González,<sup>(7)</sup> cites in his study that the **means** are the elements that serve as material support to the teaching methods, and that together with them make possible the achievement of the objectives set.

In Hernández Infante's research,<sup>(2)</sup> several authors are cited who recognize the importance of the use of teaching-learning media in the fulfillment of the established objectives. The teacher's words, the blackboard, the application of information and communication technologies (ICT) and the appropriate use of these media make the students' learning more vivid, facilitates and stimulates it.

In this aspect, it was observed that there is incoherence and insufficiency in addressing the contents in topics IV and V of the Pediatric Dentistry Manual with respect to the complementary literature. In topic IV, related to conservative treatment in young primary and permanent teeth, there is a marked incoherence in the indications for treatment according to the pulp pathologies in pediatric dentistry patients, which differs from other bibliographies and has a negative impact on the management of the child in the dental office. Regarding topic V, which deals with dental trauma, this content is not implemented with the required depth, and there is a lack of elements, for example, in the clinical characteristics of each type of trauma.

In the training process of students, the **evaluation** of clinical competencies in the health area is essential to check the level they have reached in the various stages of their professional training. The evaluation in pediatric dentistry allows to identify in depth the skills that are adequately developed and those that are not. It is necessary to rethink the educational strategies to promote the equitable development of the rest of the domains of these skills.<sup>(4)</sup>

In the analyzed program, the lack of seminars hinders the possibilities of improving the quality of the evaluation. In the seminars it is possible to evaluate the learning acquired by the students, it allows the development of other objectives related to the expansion of the field of general scientific knowledge, the development of their skills in oral expression and the formation of values for their performance in their future profession.<sup>(14)</sup>

Hernández Suárez et al.,<sup>(3)</sup> define **curricular strategies** as pedagogical resources that, used by the teacher with expertise and creativity in a planned manner, contribute to the teaching and educational process and to the integral formation of the student.

Plans D and E emphasize the improvement of curricular strategies from the methodological work in universities to achieve objectives that cannot be reached from a single discipline with the required depth and mastery, but from an integrated interdisciplinary approach.<sup>(15, 16)</sup>

Plan E develops fundamental principles for the comprehensive training of health science professionals that guarantee the unity of education and instruction, as well as the link between study and work, which is concretized in education at work as a fundamental organizational form of the training process.<sup>(16)</sup>

The program of the subject Pediatric Dentistry has designed 4 curricular strategies that contribute to the achievement of the curricular strategies in each organizational form according to the subject to be treated, in order to obtain certain knowledge, skills and modes of professional performance, which are key in their training.

Concluding, in the analyzed program, the contents are well designed, as well as the curricular strategies proposed to implement in each topic. It requires modifications in the organizational forms of teaching, which will have a positive impact on the productive methods and the evaluation system. It also requires relevant basic literature, updated and coherent in its contents with the rest of the literature to be used.

### Conflict of Interest

The authors declare that there is no conflict of interest.

### Financing

No funding was received for this study.

### Contribution of the Authors

**ALAS:** conceptualization, formal analysis, critical review, research, supervision, project management, approval of the final version.

**NTT:** conceptualization, data curation, formal analysis, research, approval of the final version.

**YGM:** data curation, research, resources, supervision, approval of final version.

### BIBLIOGRAPHIC REFERENCES

1. Martínez Guerra A, Castellanos Martínez B. Papel de la Universidad en el desarrollo de la investigación estudiantil en el proceso de formación. Medisur [Internet]. 2018 [citado 14/10/2022]; 16(3): 492-5. Disponible en: <https://www.medigraphic.com/pdfs/medisur/msu-2018/msu183r.pdf>
2. Hernández Infante RC, Infante Miranda ME. La clase en la educación superior, forma organizativa esencial en el proceso de enseñanza-aprendizaje. Educación y Educadores [Internet]. 2017 [citado 14/10/2022]; 20(1): 27-40. Disponible en: <https://biblat.unam.mx/hevila/Educacionyeducadores/2017/vol20/no1/2.pdf>
3. Hernández Suárez D, Rodríguez Acosta Y, Hernández Suárez D, Tápanes Acosta M. Las estrategias curriculares en función de la formación integral del egresado de las ciencias médicas. EDUMECENTRO [Internet]. 2022 [citado 14/10/2022]; 14(s/n): e1729. Disponible en: <http://revedumecentro.sld.cu/index.php/edumc/article/view/1729>
4. Espinosa Vázquez O, Sánchez Mendiola M, Leenen I. Evaluación del desarrollo de la competencia clínica en odontopediatría con el examen clínico objetivo estructurado. Inv Ed Med [Internet]. 2020 [citado 14/10/2022]; 9(34): 53-62. Disponible en: <https://www.medigraphic.com/pdfs/invedumed/iem-2020/iem2034g.pdf>

5. Fernández García A. Análisis del programa de farmacología para la carrera de Estomatología. MediSur [Internet]. 2021 [citado 14/10/2022]; 19(1): 133-41. Disponible en: <https://www.medigraphic.com/pdfs/medisur/msu-2021/msu2110.pdf>
6. Creagh Bandera R, Creagh Bandera F, Cazull Imbert I, Creagh Cazull A. El pase de visita desde la perspectiva médico-pedagógica. RevInfCient [Internet]. 2020 [citado 14/10/2022]; 99(6): 563-571. Disponible en: <http://scielo.sld.cu/pdf/ric/v99n6/1028-9933-ric-99-06-563.pdf>
7. Vinent González R, Gómez Cruz M. Análisis del programa de la asignatura Operatoria Clínica. Revista de Ciencias Médicas de Pinar del Río [Internet]. 2017 [citado 14/10/2022]; 21(6): 927-35. Disponible en: <http://scielo.sld.cu/pdf/rpr/v21n6/rpr19617.pdf>
8. Rojas Alcina MC, Moreno Toirán G, Valle Santos GR. El trabajo metodológico en la disciplina principal integradora formación laboral investigativa. Una herramienta útil para su dirección. Luz [Internet]. 2019 [citado 14/10/2022]; 18(1): 103-13. Disponible en: <https://www.redalyc.org/journal/5891/589164355010/589164355010.pdf>
9. Sánchez Fernández N, Sánchez Clemente A, Thomas Ferrer F, Tabera García M. Programa de la disciplina Estomatología Integral. Análisis del plan de estudio "D". Rev. Inf. Cient [Internet]. 2017 [citado 14/10/2022]; 96(2): 280-287. Disponible en: <http://revinfcientifica.sld.cu/index.php/ric/article/view/7>
10. Chaple Gil AM, Gispert Abreu EA, Alea González M, Fernández E. La mínima intervención en cariología en el plan de estudios D de la carrera de Estomatología en Cuba. Rev Cubana Estomatol [Internet]. 2021 [citado 14/10/2022]; 58(1): e3712. Disponible en: <http://scielo.sld.cu/pdf/est/v58n1/1561-297X-est-58-01-e3712.pdf>
11. Enríquez Clavero JO, González Hernández G. La superación profesional pedagógica de los docentes en la educación médica superior cubana. Atlante Cuadernos de Educación y Desarrollo [Internet]. 2019 [citado 14/10/2022]; (s/n). Disponible en: <https://www.eumed.net/rev/atlante/2019/04/superacion-profesional-pedagogica.html>
12. García Hernández M, Lugones Botell M, Lozada García L. Algunas formas de organización y presentación del contenido científico en los eventos. Acta Cient Estud [Internet]. 2018 [citado 14/10/2022]; 6(2): 66-70. Disponible en: <https://www.medigraphic.com/pdfs/estudiantil/ace-2018/ace082f.pdf>
13. Rodríguez Pérez M, González López ME. Metodología para la realización de un seminario participativo en la asignatura Microbiología y Parasitología Médicas. Educ Med Super [Internet]. 2017 [citado 14/10/2022]; 31(2): 1-7. Disponible en: <http://scielo.sld.cu/pdf/ems/v31n2/ems16217.pdf>
14. Herrera Moya V, Alfonso Tejeda I, Quintana Uguando M, Pérez Ineranty M, Navarro Aguirre L, Sosa Fleites I. Formación vocacional y motivación: su incidencia en el estudio de la carrera de Medicina. EDUMECENTRO [Internet]. 2018 [citado 14/10/2022]; 10(2): 111-125. Disponible en: <http://scielo.sld.cu/pdf/edu/v10n2/edu09218.pdf>
15. Comisión Nacional de Carrera. Plan de Estudio "D" Carrera de Medicina. La Habana: Universidad de Ciencias Médicas de la Habana; 2015.
16. Comisión Nacional de Carrera. Plan de Estudio "E" Carrera de Medicina. La Habana: Universidad de Ciencias Médicas de la Habana; 2019.