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Academic results during the epidemic period at the Faculty of Medical Sciences Miguel Enríquez

Resultados académicos durante el período epidémico en la Facultad de Ciencias Médicas Miguel Enríquez

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ABSTRACT

Introduction: the years 2020 and 2021 were characterized by the COVID-19 epidemic in Cuba, which caused the adaptation of academic courses, with the premise of making the training process more flexible, based on the suspension of face-to-face activities and the modification of the teaching curriculum.

Objective: to describe the state exam results during the epidemic period.

Methods: an observational, descriptive, retrospective study was carried out based on analyzing the promotion reports and the official models 36.19 and 36.20 of the Postgraduate Department, corresponding to 2020-2021.

Results: 173 residents took the state examination, 111 from medical specialties and 62 from stomatological specialties, with promotion of 100 %. 49,7 % obtained final grades above 95 points and 78,0 % above 90 points in the state exam. The residents of the Dermatology and Intensive and Emergency Medicine specialties received the best teaching results.

Conclusions: the Faculty of Medical Sciences “Miguel Enríquez”, during the epidemic period, graduated, with quality, all the residents who took the state exam.

Keywords: Academic Results; Medical Sciences; Medical Education; Analysis of Academic Results; Decision-Making.

RESUMEN

Introducción: los años 2020 y 2021 se caracterizaron por la epidemia COVID-19 en Cuba, lo que provocó la adecuación de los cursos académicos, con la premisa de la flexibilización del proceso formativo, a partir de la suspensión de actividades presenciales y la modificación del currículo docente.

Objetivo: describir los resultados del examen estatal durante el período epidémico.

Métodos: se realizó un estudio observacional, descriptivo, de corte retrospectivo, a partir del análisis de los informes de promoción y de los modelos oficiales 36.19 y 36.20, de la Dirección de Posgrado, correspondientes al período de los años 2020-2021.

Resultados: se presentaron a examen estatal 173 residentes, 111 de especialidades médicas y 62 de especialidades estomatológicas, con una promoción en el período de un 100 %. El 49,7 % obtuvo notas finales por encima de los 95 puntos, y el 78,0 % notas superiores a los 90 puntos, en el examen estatal. Los residentes de las especialidades de Dermatología y de Medicina Intensiva y Emergencia obtuvieron los mejores resultados docentes.

Conclusiones: la Facultad de Ciencias Médicas “Miguel Enríquez” durante el período epidémico graduó, con

calidad, a la totalidad de los residentes presentados a examen estatal.

Palabras claves: Resultados Académicos; Ciencias Médicas; Docencia Médica; Análisis de Resultados Académicos; Toma de Decisiones.

INTRODUCTION

The COVID-19 epidemic in Cuba characterized the years 2020 and 2021. The first cases appeared on March 11, 2020, and after 15 months of control, in 2021, the epidemic transmission phase was declared.^(1,2) This epidemiological context caused essential adaptations in the training process of specialists in Health Sciences in the different Universities of the country, including the University of Medical Sciences of Havana (UCMH, acronym in Spanish).

In this sense, the Medical Teaching Directorate of the Ministry of Public Health (MINSAP, acronym in Spanish) and the Postgraduate Directorate of the UCMH proposed guidelines for the adaptation of academic courses, with the premise of making the training process more flexible, based on the suspension of face-to-face activities, increase in virtual and blended processes, and modification of the teaching curriculum. All this is to be able to prioritize the tasks that correspond to the residents in the confrontation with the COVID-19 epidemic. These actions to make teaching more flexible were implemented in various universities worldwide. Some reduced contact hours, while others considered it necessary to delay the start or continuation of the teaching year.^(3,4,5)

In Cuba, it was indicated to link residents directly to confront the epidemic, except those connected to prioritized programs in Primary Health Care (PHC). It was stated by the directors to prioritize the acquisition of the competencies established for the terminal year residents, to favor their graduation, to subdivide the educational teaching process of the specialties into three groups, according to the planning of the academic calendar, to make legal adjustments in the background of rotations and academic years to promote the acquisition of skills and meet the objectives of the study plan, among other indications.^(6,7)

These guidelines were assumed by the Postgraduate Department of the Faculty of Medical Sciences "Miguel Enríquez", and by the academic committees of the specialties, to face the epidemic and simultaneously comply with the graduation of terminal year residents. And therefore, with the demands of the National Health System (SNS, acronym in Spanish). This research aims to show the state exam results from compliance with the adjustments during the epidemic period.

METHODS

An observational, descriptive, retrospective study was carried out based on analyzing the promotion reports and the official models 36.19 and 36.20 of the Graduate Department, corresponding to 2020-2021.

The universe comprised all the residents who, by academic schedule, were required to take the exam during the study period, belonging to the Faculty of Medical Sciences "Miguel Enríquez", Havana. The population sample consisted of residents who were finally included in model 36.19 of the graduation exam for having achieved compliance with more than 70 % of the skills declared in the study program for each specialties.⁽⁵⁾

Variables such as sex, the total number of residents planned, presented and failed, percentage of promotion, level of care within the SNS, route of admission and specialty were analyzed. The quality of the promotion was studied according to the grades obtained in the state exam and the average grade for each of the specialties. The variables studied are expressed in numbers and percentages. The results are represented in tables and graphs for better understanding.

The confidentiality of the student's personal data in the study was maintained with respect to their autonomy. The data used for this publication is part of the promotion reports of the Graduate Department of the UCMH.

RESULTS

In the period of the years 2020-2021, 173 residents took the state exam out of a total of 176 planned. Three students did not show up for justified reasons, and the promotion in both years was 100 %. Of those presented, 120 came from the APS, 124 entered the specialty directly, and 18 came from other countries. Of these, 13 were enrolled through self-financing (table 1).

Table 2 shows the distribution of graduate residents according to specialty. One hundred eleven graduates came from medical specialties, and 62 from dental specialties, 173. Of the medical specialties, 68 % of the graduates belonged to the basic ones, followed by surgical ones with 20 % of the graduates. In the case of stomatology, 95 % of the graduates belonged to the specialty of Comprehensive General Stomatology (EGI). Of the diagnostic specialties, only one resident of Pathology graduated.

Table 1. Distribution of residents examined in the period 2020-2021

Residents		2020	2021
Planned		95	81
Submitted		93	80
Failed		0	0
Promotion		100 %	100 %
Gender	Women	72	30
	Men	23	51
Level of care	PHC	65	55
	SSA	30	26
Admission Route	Direct	70	54
	2nd specialty	0	2
	ELAM	0	5
	Self-financed	0	13
	Competition	17	0
	FGOB	2	1
	MININT	6	6

PHC: Primary health care; **SSA:** Secondary health care; **ELAM:** Latin American School of Medicine; **FGOB:** Funded by Governments; **MININT:** Ministry of the Interior

Table 2. Distribution of residents according to the specialties that took the state exam in the period

Specialties	2020	2021	
Basic	GOB	1	2
	Pediatrics	5	2
	Internal Medicine	3	0
	MGI	17	46
Subtotal	26	50	
Clinical	Anesthesia	3	2
	MIE	2	1
	Neonatology	1	0
	Dermatology	0	4
Subtotal	6	7	
Surgical	General surgery	3	1
	Orthopedics	2	1
	Neurosurgery	3	4
Subtotal	10	13	
Dentistry	CPC	2	7
	CMF	3	0
Subtotal	45	12	
Diagnostic	EGI	48	12
	Pathological Anatomy	1	0
TOTAL	91	82	

GOB: Obstetrics and Gynecology; **MGI:** General Comprehensive Medicine; **MIE:** Intensive Care and Emergency Medicine; **CPC:** Plastic Surgery and Caumatology; **CMF:** Maxillofacial Surgery; **EGI:** Comprehensive General Stomatology;

An analysis of the quality of graduation in this extraordinary period shows that 86 graduates (49,7 %)

obtained final grades above 95 points, and 135 (78,0 %) achieved grades above 90 points in the state exam. Only 6,4 % of the students received a regular rating (70-79 points) (figure 1).

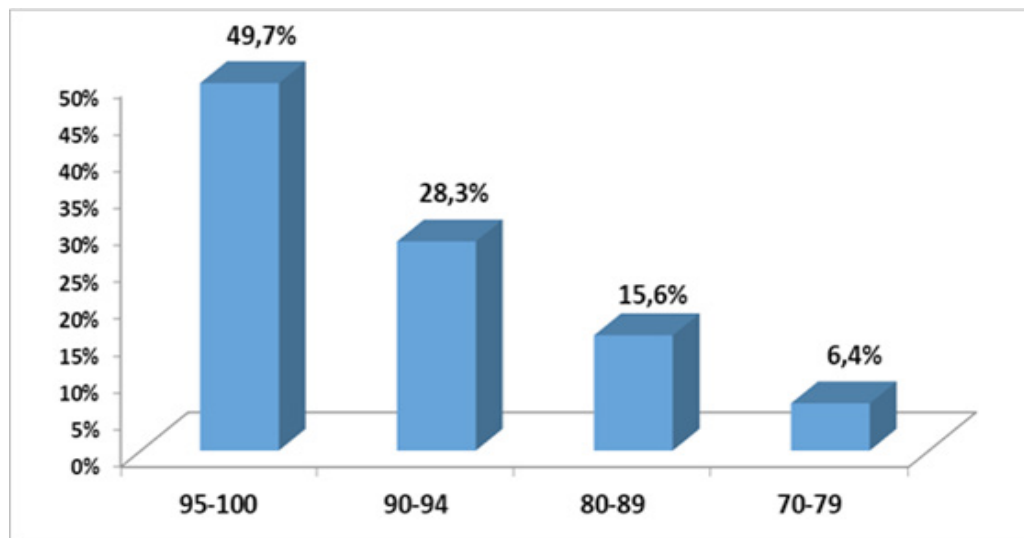


Figure 1. Promotion according to evaluation scales

Finally, when analyzing the average marks in the graduation exams of the residents according to specialties, the specialty of Dermatology showed an average of 98,5 points considering the 4 residents examined, followed by the specialties of Intensive Medicine and Emergency and Surgery. General, both are above 96 points. The specialties of EGI, MGI and Internal Medicine presented lower grades, although above 90 points, even though they were the ones that showed a more significant number of residents for examination (figure 2).

DISCUSSION

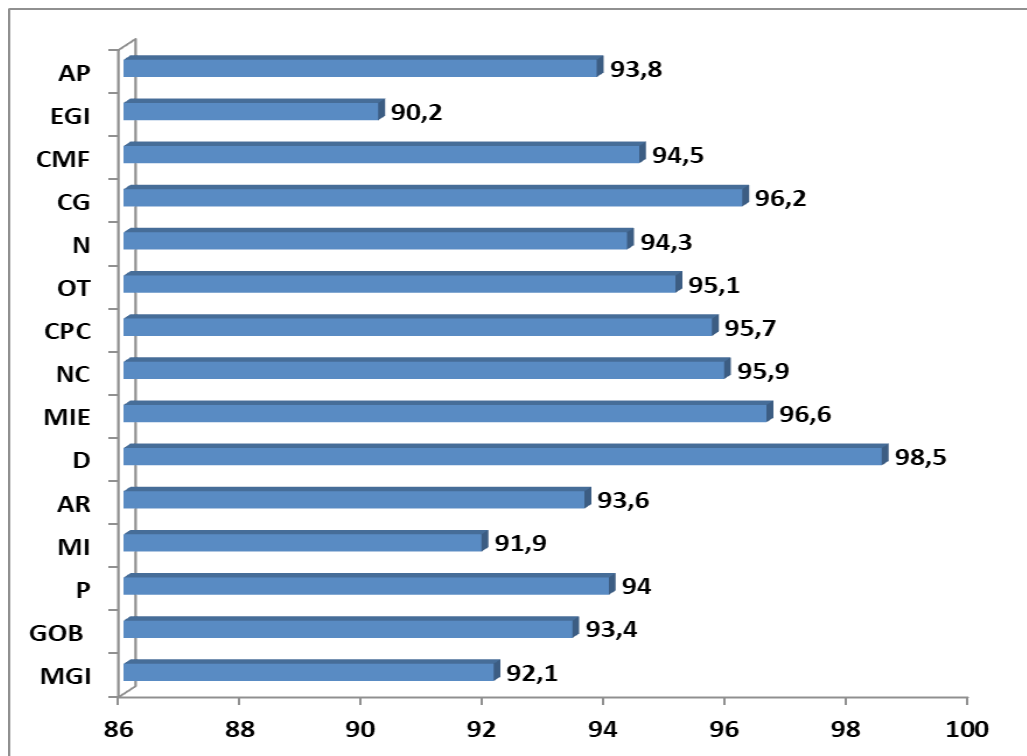
In this study, it was evidenced that, in the years 2020 and 2021 at the Miguel Enríquez College, despite the epidemic period, 111 residents of medical specialties and 62 of stomatological specialties graduated, with a promotion of 100 %. Approximately 50 % of all graduates scored above 95 on the state exam.

It is essential to highlight that, despite the atypical nature of the period, characterized by the closure of services, suspension of face-to-face activities, absence of supplies and limited mobility, only three residents were justified absent from the state exam. 69 % of the graduates in this period came from APS, 63 residents from MGI and 57 from EGI; The latter was one of the specialties most affected in the delicate epidemiological context due to the absence of expendable material and supplies for performing the different dental procedures. Both PHC specialties were classified II and III by the Teaching Directorate as specialties with a slow execution time of their teaching process to meet the objectives described in the study plan.⁽⁴⁾

Specifically, the MGI Academic Committee had to defer hospital rotations to promote care activities in the clinics, control active research, home admission or other prioritized activities at the first level of care. Despite the difficulties of the epidemic period, in no case can a professional graduate who has not met the objectives of their study plan.⁽⁸⁾ Also, the number of medical personnel was reduced in hospitals due to biological safety. Even the dental specialties were classified as those with the slowest pace (group III) due to the limited Education at work, the risk represented by oral care in the epidemiological alert period, the significant reduction in care activity and the limitation of resources.⁽⁷⁾

In addition, during the period, 22 residents of surgical specialties graduated, all scheduled according to their academic schedule, despite the suspension of elective surgeries, the closure of operating rooms, and the restrictions on supplies that affected the acquisition of surgical skills. The suspension of elective surgeries was a reality in many hospitals worldwide, which are crucial for the skills acquisition by residents.^(9,10) In these specialties, measures were assumed, such as the increase in the participation of residents in shifts, with greater use of them, the use of the morgue and experimental classrooms for the acquisition of skills, online learning, as well as the readjustment in time and order of intra- and extra-hospital rotations. Special interest was given to the discussion of cases to develop clinical-surgical judgment, personalized attention to each of the residents and planning the presence of residents in surgeries of related surgical specialties.¹¹ Special mention deserves the academic committee of the specialty of Plastic Surgery and Caumatology that graduated six self-financed residents, with a high level of satisfaction, despite the cancellation of elective surgeries during the period.

Surgical specialties require acquiring skills only possible by performing procedures in operating rooms. Or, as is the case with the specialty of Dermatology, which requires skills that can only be achieved with repetitive



AP: Anatomical Pathology
 EGI: Integral General Dentistry
 CMF: Maxillofacial surgery
 CG: General Surgery
 N: Neonatology
 OT: Orthopedics and Traumatology
 CPC: Plastic Surgery and Caumatology
 NC: Neurosurgery
 MIE: Intensive Care and Emergency Medicine
 D: Dermatology
 AR: Anesthesia and Resuscitation
 MI: Internal Medicine
 P: Pediatrics
 GOB: Gynaecobstetrics
 MGI: General Integral Medicine

Figure 2. Promotion of residents according to specialty

physical evaluation and continuous appreciation of, for example, textures, meaning that strategies such as virtual teaching and videoconferences have limited value.^(12,13)

The promotion was high quality; 78 % of the graduated residents obtained marks higher than 90 points, emphasizing the specialties of Dermatology, Intensive and Emergency Medicine, Neurosurgery, Plastic Surgery and Traumatology, Otolaryngology and General Surgery, with average scores above 95 points. It is interesting that, except for Dermatology and Intensive and Emergency Medicine, the rest are surgical specialties, in which the completion of the residents' skills required a greater effort and dedication on the part of the professors of the academic committees.

Even though the MGI and EGI specialties graduated 69 % of all the residents, their average grade was above 90 points, highlighting the sustained work of the teachers of both specialties. Although, it should be remembered that the massive enrollment in both specialties continues to threaten the teaching process.

It can be said that the COVID-19 pandemic has posed challenges in Medical Education. Cuba has seen this challenge as a learning opportunity, achieving a sustained confrontation with the pandemic without neglecting the training of residents of the Medical Sciences of our university.

It is important to highlight that in all cases, the formalities established in the Residence Regulations (Resolution 108/04 of the Minister of Public Health, dated August 24, 2004), the biosafety regulations due to the epidemiological contingency and the modifications to the exam in each specialty,⁽⁸⁾ in correspondence with the real context that was experienced during the years 2020-2021.

CONCLUSIONS

During the epidemic, the Faculty of Medical Sciences "Miguel Enríquez graduated with quality all the residents presented for the state exam.

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CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest.

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