



Original article

Requisitos de selección de los residentes de la especialidad de enfermería intensiva y emergencia

Selection requirements for residents of the intensive and emergency nursing specialty

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Resumen

Introducción: La especialidad de postgrado es la formación académica que proporciona al profesional la actualización, profundización, perfeccionamiento o ampliación de las competencias laborales necesarias para el desempeño profesional que requiere un puesto de trabajo.

Objetivo: Determinar el cumplimiento de los requisitos de admisión para el ingreso de los profesionales de enfermería a la especialidad de Enfermería intensiva y emergencia de la Universidad de Ciencias Médicas de Villa Clara, Cuba.

Métodos: Se realizó un estudio descriptivo retrospectivo en el primer trimestre del 2022 en la Facultad de Tecnología de la Salud y Enfermería. Se analizaron 15 expedientes de licenciados en Enfermería que fueron admitidos como matrícula en el 2020. Se estudiaron las variables sexo, experiencia profesional, grupo de edad, índice académico y cumplimiento de los requisitos de admisión.

Resultados: 73,33% de los residentes matriculados fueron mujeres, 86,66% tenía más de 30 años de edad, 60% más de 15 años de experiencia laboral en el área de cuidados intensivos, 80% contaba con un índice académico superior a 4.0 puntos.

Conclusiones: Los criterios de admisión exigidos por el programa de la especialidad fueron cumplidos en la totalidad de los profesionales matriculados, pero resultan insuficientes para optimizar el proceso de selección. El análisis exhaustivo de los programas existentes en instituciones extranjeras permitió identificar requisitos que pueden ser incluidos con el objetivo de perfeccionar el sistema de admisión actual, entre ellos se encuentra la aprobación de un examen que se promedie con el índice académico de la carrera de enfermería.

Palabras clave: enfermeras especialistas, cuidados críticos, educación de postgrado en enfermería, programas de posgrado en salud.

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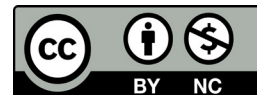
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Abstract

Introduction: The postgraduate specialty is the academic training that provides the professional with the updating, deepening, improvement, or broadening of the labor competencies necessary for the professional performance required by a job position.

Objective: To determine the fulfillment of the admission requirements for the entrance of nursing professionals to the specialty of Intensive and Emergency Nursing at the University of Medical Sciences of Villa Clara, Cuba.

Methods: A retrospective descriptive study was carried out in the first quarter of 2022 in the Faculty of Health Technology and Nursing. 15 files of nursing graduates admitted as matriculants in 2020 were analyzed. The following variables were studied: sex, professional experience, age group, academic index, and fulfillment of admission requirements.

Results: 73.33% of the enrolled residents were women, 86.66% were over 30 years of age, 60% had more than 15 years of work experience in the intensive care area, and 80% had an academic index higher than 4.0 points.

Conclusions: All the professionals enrolled met the admission criteria required by the specialty program, but more is needed to optimize the selection process. The exhaustive analysis of existing programs in foreign institutions made it possible to identify requirements that could be included to improve the current admission system, among them is the passing of an exam that averages with the academic index of the nursing career.

Keywords: nurse specialists, critical care, graduate nursing education, graduate health programs.

Introduction

Before January 1, 1959, the improvement of health professionals in Cuba did not resemble what is happening today, since, according to the systematization of the literature, there was no improvement program for the sector's human resources; this process was only undertaken out of self-interest and outside any institutional or governmental link.¹

In the 1960s, a permanent and laborious work of transformation began at the three levels of medical care, intending to train highly

qualified professionals who, in addition to diagnosis, promotion, prevention, treatment, and rehabilitation of the patient, would respond to the problems related to the health-disease process from the perspective of social medicine and with the participation of the university as an institution.²

The 1962 university reform was an example of this since it made it possible to organize the different universities of the country, and in a centralized manner from 1990 to 2001, the postgraduate training process from the emergence of the faculties of medical sciences

that covered specific areas of academic training and professional improvement. The improvement of professional development was conceived at that time as a program of the Cuban Revolution.^{3,4}

On the other hand, with the creation of the Ministry of Higher Education in 1976, higher medical education was subordinated methodologically to this institution and administratively to the Ministry of Public Health, which assumed the responsibility of directing, organizing, and controlling the process of training specialists in the sector. Thus began a stage of improvement of medical education, to improve the health indicators of the Cuban population.^{5,6}

However, since the social changes that have taken place since the 1990s, higher education in Cuba has required a rapid improvement in the quality of the training of health professionals, especially nursing human resources, which shows that the improvement of medical science professionals is a complex process that requires a rigorous theoretical and practical construction in the current conditions.^{7,8}

Nursing is one of the professions distinguished in medical education by professional performance, which is synthesized in four main dimensions: nursing care, individual, family and community, health, and environment. Nursing is concerned with the satisfaction of human needs based on the identification of health problems, employs the logic of the nursing care process as a scientific method based on evidence, and takes into account actions of promotion, prevention, cure, and rehabilitation to ensure biopsychosocial well-being through teaching, research, and assistance, to optimize the quality of nursing services.^{9,10}

In this sense, the importance of

postgraduate education represents a requirement for the university faculty, so the importance of this training is based, on the one hand, on the historical reality of the centrality of education, research, and learning merged in the development processes; and on the other hand, on the relevance of lifelong education, supported by the self-management of learning and socialization of knowledge construction.^{7,11}

In this context, medical education as part of the Cuban educational system acquires an integral character; it does not consist simply in facilitating the acquisition of skills but considers health as a process of social construction, which takes into account the determinants of the health-disease process in the biological, economic, ecological and psychosocial spheres of various groups. All this generates the need to guarantee a professional with a broad profile, whose mode of action responds to the characteristics and development of the society in which they works.^{12,13}

In correspondence with this, the scientific and technical preparation of nursing professionals became a priority of the health system, in which the Cuban Nursing Society, since its foundation in 1976, has played a leading role in promoting, generating, and actively facilitating the achievement of this goal, which represents a requirement for the members of the guild.^{14,15}

Thus, the postgraduate activity in Cuba, according to Ministerial Resolution 140 of 2019, requires that the programs must be accredited and approved by the Ministry of Higher Education; however, in its Article 51, the Ministry of Public Health is exempted from such provision with regard to specialty programs, so that all authority is conferred to the postgraduate department of this ministry

for the projection, approval and implementation of own specialty programs, according to the training needs of the sector.^{11,16}

In this context, in 2005, the postgraduate specialties in nursing emerged, which constitute academic training at this level, since they provide the professional with the updating, deepening, improvement, and expansion of labor competencies for the performance required by a job position.¹¹ At that time, nursing professionals could access their specialties (maternal and child nursing, community nursing, intensive and emergency nursing), basic science specialties (human anatomy, histology, embryology, clinical biochemistry, normal and pathological physiology), and public health specialties (statistics and hygiene and epidemiology), which constituted a fundamental step in postgraduate nursing education.

According to Article 40 of Ministerial Resolution 140 of 2019, the structure of the programs, the different modalities of execution, as well as the requirements for admission, evaluation, permanence, and graduation in any of the postgraduate specialties, are defined in the manual for the management of this activity.¹¹

The requirements for admission of applicants to each of the postgraduate training programs in nursing confer quality to the selection process, as well as elements that allow the characteristics of the promotions achieved to be evaluated in the future, which directly influences the effectiveness of the training.

This article aims to determine compliance with the admission requirements for admission of nursing professionals to the specialty of Intensive and Emergency Nursing.

Methods

A retrospective descriptive study was carried out in the first quarter of 2022 in the Faculty of Health Technology and Nursing of the University of Medical Sciences of Villa Clara. The records of the 15 graduates in Nursing admitted to the specialty of Intensive and Emergency Nursing in 2020 were analyzed. It was unnecessary to use sampling since the entire universe was studied.

The requirements that were evaluated for the selection of the enrollees were: to be a graduate of the degree in Nursing and to be practicing the profession, to have maintained a conduct following the ethical and moral principles of society, not to have physical, psychological or social limitations that may interfere in the performance, not to be incorporated or have obtained a position in any other specialty, not to be in the commission of temporary or definitive discharge before the three years from the time of being issued, and to have been released by their work center to opt for the specialty.

Variables analyzed and operationalization:

- Sex: biological and physiological characteristics that define men and women. Categories: man or woman
- Age group: time interval measured in years that frame a person's age. Categories: 21 to 30 years old; 31-40 years old; 41-50 years old
- Professional experience: experience in the exercise of the activities of the profession or academic discipline required for the performance of the job, measured in years from the completion and approval of the academic curriculum of the respective professional training. Categories: ≤ 5 years ; 6-10 years; 11-15

- years; > 15 years
- Academic Index: the measure of student academic performance on a scale from 1 to 5. Categories and scale: Excellent: 5.0 points; Very good: 4.0 points; Good: 3.0 points; Failed: < 2.0 points.
 - Fulfillment of selection requirements for the specialty of Intensive and Emergency Nursing: adherence by the committee to the requirements for enrollment in the residency.
Category:
Yes: when 100% of the requirements were met.
No: when less than 100% of the requirements were met.

The information was processed through descriptive statistical analysis using numbers and percentages, for which the information on the entry criteria taken into account was transferred to an Excel database and expressed in the results in tables or graphs.

Regarding ethical aspects, authorization was requested from the department head of the nursing career of the Faculty of Health Technology and Nursing to carry out the present study, emphasizing that the information collected would only be of scientific interest and would be anonymous. Likewise, approval was obtained from the scientific committee and the research ethics committee of that body. Since we did not work directly with individuals, informed consent was not required.

Results

Table 1 shows the general data by age group, sex, and professional experience of the graduates in nursing who were enrolled in the intensive and emergency nursing residency. Regarding sex, out of a total of 15 enrolled 11 were women (73.33%) and only 4 were men (26.67%).

Table 1. Distribution of first-year residents in the specialty of intensive and emergency nursing according to sex, age, and years of experience.

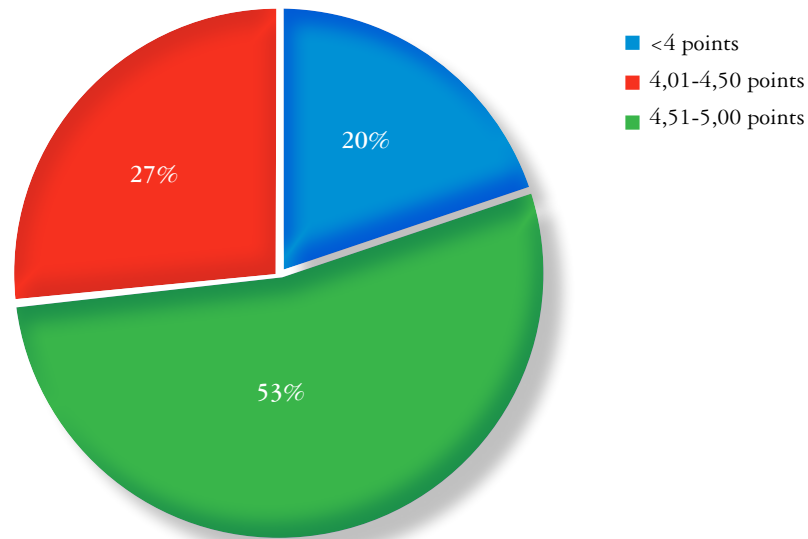
<i>Sex</i>	<i>No</i>	<i>%</i>
Man	4	26,66
Woman	11	73,33
<i>Age group</i>	<i>No</i>	<i>%</i>
21-30 years old	2	13,33
31-40 years old	8	53,33
41-50 years old	5	33,33
<i>Years of experience</i>	<i>No</i>	<i>%</i>
≤ 5 years	2	13,33
6-10 years	1	6,67
11-15 years	3	20,00
> 15 years	9	60,00

Source: registration record

Concerning age, of the total number of enrollees, 8 (53.33%) were found to belong to the 31 to 40 age group, 5 (33.33%) were included in the 41 to 50 age group, and only 2 (13.33%) were found to be in the 21 to 30 age group.

In the analysis of the variable “*professional experience*”, it was observed that 9 (60%) had more than 15 years of work, 3 (20%) had between 11 and 15, 2 (13.33%) had less than 5 years of work and only 1 had 6 to 10 years of experience.

Figure 1. Distribution of first-year residents of the Intensive Care Nursing specialty and emergency according to academic index.



Source: registration record

Figure 1 shows the distribution of the professionals enrolled in the intensive and emergency nursing residency according to the academic index, with scores ranging on a scale from 1 to 5, where it can be seen that 20% had a score below four points, 27% had between 4.01 and 4.50 points, and 53% had academic indexes between 4.51 and 5.00 points.

The requirements for admission to the specialty required by the residency program include graduation with a degree in nursing and practicing the profession, having maintained conduct following the ethical and moral principles of society, not having physical, psychological, or social limitations that could interfere with

performance, not being incorporated or having obtained a position in any other specialty, not being on the temporary or definitive leave commission within three years of being issued, and having been released by their work center to opt for the specialty. These requirements were 100% fulfilled by the commission that carried out the process.

Discussion

The leading role of women as human resources in the nursing profession continues to be significant; it is a constant that is reiterated and that this study also reaffirms, which

coincides with the literature consulted.^{17,18}

In relation to years of work experience, the results of the present investigation are related to those found by Durán et al.¹⁸ in the study entitled “*Continuing education of intensive care nurses to provide safe advanced practices*”, in which most of the professionals had more than 10 years of experience in nursing care in intensive care units.

Although no references were found in the literature alluding to the academic index that a professional must meet to enroll in the specialty of Intensive and Emergency Nursing, according to the authors’ criteria, it is important to take this element into account, since undergraduate training plays a determining role in the professional and represents a measure of their future teaching performance. However, the requirements demanded by the program of the specialty of intensive and emergency nursing for admission, as can be seen, are minimal and do not guarantee the permanence of the resident in the specialty or their promotion. The authors of this article consider that this aspect should be analyzed, reevaluated, and modified to carry out a thorough selection process that allows the recruitment of professionals with a marked interest in their training and with sufficient intellectual capacity to achieve positive results and to be able to participate effectively in the training of new professionals. To this end, it is imperative to review other programs.

In this sense, in the bibliography consulted, several training programs for specialists in this area of critical care were found, belonging to universities in different countries in which, although there are similarities, differences were also observed. In the authors’ opinion, these differences can enrich and optimize the selection process of candidates for the intensive and

emergency nursing residency at the University of Medical Sciences of Villa Clara.

In the specialization program of the “*José Ramón Vidal*” Hospital in Argentina,¹⁹ for example, the adult critical care nursing residency is conceived independently from the pediatric residency, as is also the case at the Pontificia Universidad Católica de Chile,^{20,21} an aspect that should be taken into account due to the particular differences between these areas.

Another element of interest found in the program of the “*José Ramón Vidal*” Hospital in Argentina,¹⁹ and which differs from the selection process carried out in Cuba, is the need to pass a written exam as an indispensable requirement, as is also required in the residency program of the “*Gral. José Francisco de San Martín*” Teaching Hospital in the city of Corrientes, Argentina.²²

On the other hand, in the program of the University of Buenos Aires,²³ in addition to complying with the common legal documents, the admission system also includes the approval of a minimum score established for the multiple choice exam, which is averaged with the general qualification of the nursing career, thus creating an order of merit by which the applicant will choose their place of residence. This, according to the authors, optimizes the selection process by giving value to each of the formative moments of the professional.

In this regard, both the program of the Hospital Italiano de Buenos Aires²⁴ and the Universidad Católica del Maule de Chile²⁵ include as entry requirements, in addition to all the stipulated legal documentation, passing the interview that is carried out.

However, three training programs for critical care nursing residents were found that do not include admission requirements, among them the Hospital Nacional Profesor A. Posadas, in

the Province of Buenos Aires,²⁶ the Hospital El Cruce Néstor Kirchner, also in the Province of Buenos Aires,²⁷ and the Hospital Pablo Soria, in San Salvador de Jujuy, Argentina.²⁸

Some critical care specialty programs in Chile were consulted as part of this research, among them the Universidad de Concepción,²⁹ the Universidad de Valparaíso,³⁰ the Universidad San Sebastián,³¹ the Universidad de Chile³² and the Universidad de Los Andes,³³ all of them with similarities in their selection process of admission candidates.

One aspect in which Cuba stands out and differs from the rest of the countries that have initiated the critical care nursing residency is the fact that the specialty program is homogeneous for all the country's Universities of Medical Sciences, while in other territories each university has its program of study with its specificities, as has already been described in this research.

In this regard, the authors agree that it is advantageous to have state institutions such as the Ministry of Public Health and the Ministry of Higher Education that direct, organize, and control all training activities through the Universities of Medical Sciences since the homogeneity of the study programs at the national level guarantees the quality of the training process, as well as the possibility of comparing the results obtained.

In countries such as Spain, this constitutes a weakness in postgraduate education since the training of professionals to become specialists does not depend on the university in question but on the Ministry of Health, which is developed in the corresponding health systems of each autonomous community, while the Ministry of Education only retains the administrative power to grant specialist degrees.³⁴

Following the above, increasing professional competence to act and consistently modify reality

for the good of the human being represents a major task in a sensitive sector such as health, so these claims become an essential aspect of health systems to ensure their quality, efficiency, and relevance, in which the implementation of modifications to optimize results plays a decisive role.⁶

Conclusions

The admission criteria required by the intensive and emergency nursing specialty program were met by all the professionals enrolled, but are insufficient to optimize the selection process. The existence of a direct link between the Ministry of Public Health and the Ministry of Higher Education benefits postgraduate training in Cuba. The exhaustive analysis of existing programs in foreign institutions made it possible to identify requirements that could be included in order to improve the current admission system. Among these is the passing of an exam that averages with the academic index of the nursing career.

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