



Original article

Especialización de enfermería en anestesiología y reanimación como necesidad formativa en Cuba

Nursing specialization in anesthesiology and resuscitation as a training need in Cuba

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Abstract

Introducción: Las especialidades de posgrado constituyen la formación académica que le proporciona al profesional la actualización, profundización, perfeccionamiento o ampliación de las competencias laborales para el desempeño asistencial que requiere.

Objetivo: Explorar la percepción de los enfermeros certificados para la práctica de la anestesiología sobre la necesidad de la formación de enfermeros especialistas en anestesiología y reanimación.

Métodos: Se realizó un estudio cualitativo, de tipo Investigación Convergente Asistencial en el Departamento de Docencia e Investigación del Hospital Provincial Pediátrico Universitario de Villa Clara, Cuba, entre los meses de enero y marzo del año 2022. El universo estuvo compuesto por 100 profesionales de enfermería certificados en anestesiología, y la muestra seleccionada a través de un muestreo teórico quedó constituida por 80. Se realizaron entrevistas informales y ocho grupos de discusión en el proceso investigativo.

Resultados: Los participantes perciben como necesaria la formación de enfermeros especialistas en anestesiología, reanimación y alivio del dolor. Las estrategias para lograr esta formación deben estar dirigidas a su aprobación por parte de las instancias de posgrado del Ministerio de Salud Pública y el Ministerio de Educación Superior.

Conclusiones: Perciben como perentorio la formación de enfermeros especialistas en anestesiología y reanimación, ya que permitirá garantizar la adecuada renovación de este recurso humano, contar con enfermeras capacitadas y capaces de brindar atención anestesiológica óptima, alcanzar un nivel profesional superior que los coloque paralelos a otras áreas del cuidado y formar recursos humanos más jóvenes que tengan un nivel de preparación superior en esta especialidad.

Palabras clave: enfermeras especialistas, educación de posgrado en enfermería, programas de posgrado en salud, enfermeras anestesistas

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Resumen

Introduction: Postgraduate specialties constitute the academic training that provides the professional with the updating, deepening, improvement or expansion of labor competencies for the care performance that is required.

Objective: to explore the perception of certified nurses for the practice of anesthesiology on the need to train specialist nurses in anesthesiology and resuscitation.

Methods: A qualitative study of the Convergent Care Research type was carried out in the Teaching and Research Department of the Provincial Pediatric University Hospital of Villa Clara, Cuba between the months of January and March of the year 2022. The universe was composed of 100 nursing professionals. certificates in anesthesiology and the sample selected through a proven theory was made up of 80. Informal interviews and discussion groups were conducted as instruments in the investigative process.

Results: the participants will perceive as necessary the training of specialist nurses in anesthesiology, resuscitation and pain relief. The strategies to achieve this training must be directed to its approval by the postgraduate instances of the Ministry of Public Health and the Ministry of Higher Education.

Conclusions: They perceive as peremptory the training of specialist nurses in anesthesiology and resuscitation, since it will allow guaranteeing the adequate renewal of this human resource, having trained nurses capable of providing optimal anesthesiology care, reaching a higher professional level that places them parallel to other areas of care and training younger human resources who have a higher level of preparation in this specialty.

Keywords: Specialized nurses, postgraduate nursing education, postgraduate health programs, nurse anesthetists

Introducción

Like other professions, nursing is the result of the evolutionary activity of the human being. Its gradual development has acquired specific characteristics in each period of history. During this continuous progress in different contexts, the nursing profession, has developed different specializations.¹

Anesthesiology is considered a clinical specialty, dedicated to maintaining the well-being and physical integrity of patients during surgery and other acts that may be uncomfortable or painful. Its objectives are to maintain patient hemodynamics,

anesthetic depth, and adequate pain relief.²

The specialty of anesthesiology in Cuba had a resurgence after 1959, since the government implemented several actions for its development, including the training of anesthesiologists in European countries, so that the activity of sleeping and waking up patients ceased to be its only function. Thus, the training of nurse anesthetists is recorded in history as an important step carried out in 1965.³

Since 1962, new medical schools were created with campuses in every Cuban province, grouped in various medical universities, in addition to the Higher Institute of Military Medical Sciences, the Latin American School of Medicine, the

National School of Public Health, and a growing number of schools of health technology and nursing. In that year, the system of specialization for physicians was also organized and in 1973 the system of continuous training and education was created to guarantee the permanent quality of medical specialists, nursing personnel, and other health technicians.⁴

The training of nurse anesthetists in Cuba, starting in 1965, arose from the need to train human resources in this area of care due to a deficit in anesthesiology, resuscitation and pain relief. This objective was achieved with the following measures: firstly, the design and implementation, of post-basic courses in anesthesiology; secondly anesthesiology diploma courses, which allowed the training of hundreds of nurse anesthesiologists. Such steps constituted one of the earliest training programs carried out as a postgraduate activity in Cuba.

However, despite the fact that nursing specialties in this country have been approved by the Ministry of Higher Education and the postgraduate area of the Ministry of Public Health since 2005, only the specialties of intensive care and emergency, maternal and childcare and community nursing have had governmental support. It was not until 2020 that this training process was extended to the areas of pediatrics and obstetrics and gynecology, however, anesthesiology was not included.⁵

Currently, the lack of training of nurse specialists in anesthesiology is a disadvantage with respect to other areas of human resources in the field of nursing and care. This absence actually represents a limitation for the professional improvement in this area and the possibility of acquiring new knowledge, as well as deepening the knowledge already acquired. Moreover, it represents a conditioning factor

from the economic point of view given the better remuneration that nurse specialists receive. This constitutes the main aim of the present research: to explore the nurse's notion of certification regarding anesthesiology and the need for the training of nurse specialists in anesthesiology and resuscitation.

Methods

A qualitative study,^{6,7} of the Convergent Care Research (CCR) type was carried out in the Teaching and Research Department of the Provincial Pediatric University Hospital of Villa Clara, Cuba, between January and March 2022.

The CCR is a type of qualitative research characterized by attributes that organize its development and application, such as immersion, simultaneity, expansibility and dialogue, which facilitates the approximation between care and research actions so that they can be interspersed and carried out in a better way.^{8,9}

In this sense, it is worth remembering that the CCR approach was initiated in the 1990s, together with the Graduate Nursing program at the Federal University of Santa Catarina (UFSC), Brazil. This innovative proposal was based on ideas, studies and publications first found in Trentini and Paim *Pesquisa em enfermagem: uma nova modalidade convergente-assistencial*, published in 1999 by the UFSC publishing house, and *Pesquisa convergente-assistencial: um design que une o fazer e o pensar na prática assistencial em saúde-enfermagem*, published in 2004 by Editora Insular.^{10,11}

The CCR proposal includes particular assumptions and essential arguments of

the research process which aims at the simultaneity of the care process. Delimiting and justifying the typification characteristics of this type of research, this proposal points at possible connections between the research process and the care process. Such assumptions include the following issues:

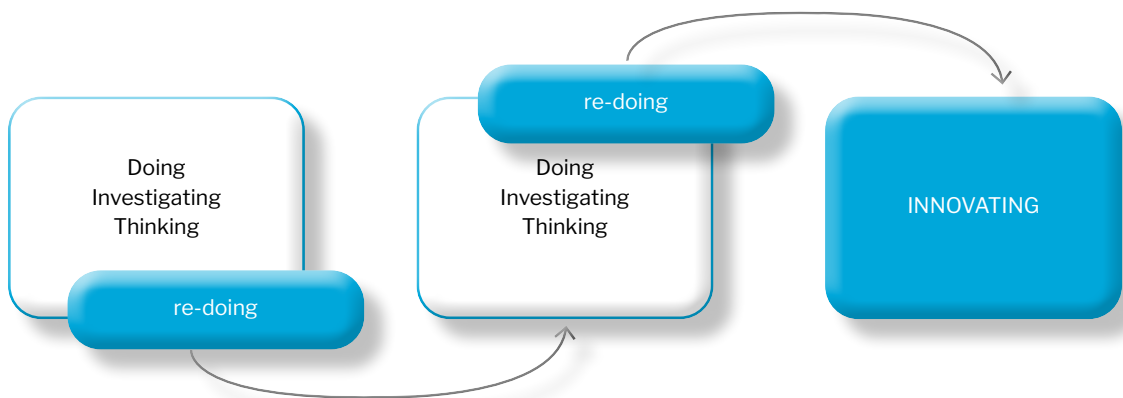
- The CCR has the potential to produce knowledge, absorb it and incorporate it into a given healthcare space (physical and temporal). This constitutes its main connectivity feature. Thus, translational quality is inherent to CCR and is shaped within the researched healthcare practice itself.
- The context of care practice requires innovation, alternatives to minimize or solve daily health problems and renewal of practices for improvement. Such practice requires a commitment on the part of professionals to include research in their health care activities in order to connect systematic knowledge-thinking with know-how.
- The context of care practice is potentially a fertile field of implicit questions, which

foster the development of scientific research.

- The relationship between research and care simultaneously revitalizes active work in the field of care practice and scientific research.
- The CCR implies the commitment to benefit the care context during the research process through free access to the information that comes from it.
- The health professional is a potential researcher of the issues he/she deals with on a daily basis His/her work enables him/her to have a critical attitude appropriate to the growing intellectual immersion in the work he/she performs.

Therefore, CCR is that type of qualitative research that maintains a close link with the healthcare practice throughout the execution process, with the aim of finding options for solving or minimizing problems, making modifications, and introducing innovations in practice. In this sense, this type of research is committed to innovation in the social context under investigation and its process incorporates doing, investigating, thinking and redoing (Figure 1).

Figure 1. Representation of the research process of the Convergent Care Research (CCR). Taken from Paim *et al.*⁸



Taking these elements into account, the present study consisted of five stages, which are described below. The authors are listed in the order in which they collaborated in the study:

I) Planning research stage

Eighty nurses were selected by a non-probabilistic theoretical sampling¹² participated out of a total of 100 professionals certified for the practice of anesthesiology in the province during the period in which the research was carried out. Therefore, 20 professionals were excluded from the study.

Inclusion criteria:

- To be a nurse or certified nurse anesthetist.
- To have signed the informed consent form supporting their acceptance to participate in the research.

Exclusion criteria:

- Not having worked or having worked out of the country during the the research.

Theoretical sampling made it possible to ask questions increasingly focused on the categories and to scrutinize the responses in the comparative analysis with systematic controls. This was done iteratively according to the richness of the information obtained for the generation of categories and their relationships. Thus, the sample size was determined at the end of the study, when the saturation of the information was achieved in the development of eight discussion groups.

The problem identified in the care setting was the absence of a training program for

residents in anesthesiology and resuscitation. In addition, researchers are unaware of the need of anesthesiology certified nurses

In view of this situation, the guiding questions of the study are :

- 1) What is the perception of nurses certified for the practice of anesthesiology in Villa Clara regarding the need for training nurses specialized in anesthesiology and resuscitation
- 2) What are the strategies that can be adopted to achieve the specialization of nurses in anesthesiology and resuscitation?

II) Instrumentalization Stage

The research was undertaken in the Department of Teaching and Research of the Provincial Pediatric University Hospital José Luis Miranda of Villa Clara, where the methods for obtaining information were carried out, that is, the structured interview¹³ and the discussion groups (DG). The structured interview was carried out by the main author to all the nurses certified in anesthesiology who agreed to be part of the research. It was flexible and without time limit and was carried out at the authors' request. The objective of the structured interview was to gather the general data of the participants in the study, as described below.

The study sample consisted of a total of 80 professionals, of whom 48 were women (60%) and 32 men (40%); on the other hand, 18 nurses (22.50%) had 11 to 15 years of professional experience, and another one had 16 to 20 years, followed by those with more than 25 years, represented by 15 professionals (18.75%). Of the total sample, 67 had a bachelor's degree in

nursing (83.75%) and 13 were mid-level technicians (16.25%).

Once each participant had been interviewed, the DG were organized and the date of execution of each one was planned beforehand. Eight DG were formed, and 10 professionals participated in each one. The distribution of the DG followed the existing literature on their composition: *“The sample is composed of a reduced number of people, generally a group between 7-9 people; most authors indicate that the maximum number of participants would be 10. Although they have common characteristics in relation to the topic under study, they are generally unknown to each other”*, Furthermore,: *“Regarding homogeneity or heterogeneity {...} The balance lies in finding participants who are homogeneous with the segments under study, but with different characteristics that contribute richness and nuances to the debate”*.¹³

The meetings were held in the classroom located on the premises of the Teaching and Research Department of the aforementioned center, which was adapted in such a way that all participants were at the same level. The DG were organized by three researchers, who performed different functions: the main author was the moderator, the second author gathered field notes, and the third author recorded the audios and videos. The average duration of the meetings was one hour, the recording of audios and videos allowed the registration and accurate transcription of the data. To record the audios, three cell phones with the necessary application for this purpose were placed in different places in the classroom. In similar situations and in the same place, the quality of the recordings of these devices had been previously tested.

The videos were made with a single cell

phone, using the application that the device had for this purpose. The objective of the meetings was to explore the perception of the certified nurses on the need for nurse specialist training in anesthesiology and resuscitation, in addition to analyzing, reflecting, and making collective proposals for strategies to achieve this type of postgraduate training

III) Data processing stage

The organization of the information collected during the practice of care and research was carried out. Using each annotation obtained and the agreements reached in the eight DG, categories were established. Afterwards, a summary of each one of them in relation to their response to the objective of the research was selected. The participants were identified by the letter E, alluding to the nursing profession in Spanish (Enfermera/o), followed by the number corresponding to the order in which they carried out the interventions.

IV) Analysis stage

According to the greatest exponents of CCR, the moment of analysis requires a profound abstraction for the reading of the findings and their decoding, as well as the revelation of possible meanings. This abstraction depends on a temporary seclusion of the researcher that occurs when a detachment from the practice of care is achieved.⁸

Therefore, the data analysis carried out was qualitative and included the discovery, codification and relativization of the information, which made it possible to discover categories, codify them and establish relationships. For this purpose, content analysis and thematic coding were used as techniques.

The content analysis was performed from the inductive perspective, which affirms that the categories emerge from the data (empirical categories), and was carried out by the main author, considering Bardín's theoretical referential,¹⁴ through an exhaustive reading of the textual body. The recording units were marked with different colors, the nuclei of meaning from which the categories emerged were then sought and the weighted frequency was applied to identify the one with the greatest relevance.

On the other hand, in relation to thematic coding, Saldaña follows Strauss: *"excellence in research largely lies in the coding method"*.¹⁵ Coding is an exploratory technique used for problem solving without numerical data; it is cyclical and requires three to four cycles to complete the analysis and to be able to form categories. In addition, coding requires three moments: open coding, which aims to formulate the data into concepts; axial coding, which summarizes and integrates the concepts into categories; and selective coding, which uses a higher level of abstraction to generate the central category or categories, which link the identified categories by making sense of the data and their relationships.¹²

V) Interpretation stage

Three fundamental steps were involved: synthesis, theorization, and transfers. For this purpose, an in-depth analysis of the results of the previous stage was carried out. This allowed the information of each category that emerged during the analysis to be integrated in one final category.

Regarding the ethical aspects of the research, the inclusion of the participants in the study was carried out by means of a prior

explanation of the objective and scope of the research, as well as the request for verbal and written informed consent. The possibility of leaving the study at any time was also guaranteed to the participants who without any consequences for their working life.

In addition, the present research was approved by the scientific council of the institution, agreement number 102/2021 dated November 20, 2021, and by the research ethics committee, agreement number 72/2021 dated November 7, 2021.

Results

Regarding the exploration carried out by the authors on the perception of certified nurses for the practice of anesthesiology in Villa Clara province, two aspects stood out in the discussion groups: on the one hand, the need for the training of nurse specialists in anesthesiology, and on the other hand, the strategies necessary to achieve such training. The results of the analysis are summarized below according to each category.

Need for the training of nurse anesthesiologists

Most of the nursing personnel certified for the practice of anesthesiology in Villa Clara province perceive that the training of nurses specialized in anesthesiology, resuscitation and pain relief in Cuba is urgent to provide excellent care in this area. Here follow some of the testimonies that predominated in the discussion groups' discourses, together with the label of other participants who sympathized with what was said.

- “{...}to have a trained nursing human resource capable of providing optimal anesthesiologic care at all times.” (E1), (E3), (E4), (E6), (E10), (E14), (E16), (E30), (E33), (E35), (E44), (E51), (E60), (E72), (E76)
- “It would allow us to reach a higher professional level that would place us parallel to other areas of care {...}” (E5), (E7), (E12), (E19), (E26), (E31), (E38), (E43), (E66), (E75), (E80)
- “{...}in addition, it would guarantee the training of younger human resources, who have a higher level of preparation in this specialty.” (E2), (E 11), (E22), (E27), (E32), (E39), (E46), (E49), (E52), (E65), (E68), (E70)
- “To guarantee teacher training on an ongoing basis.” (E 15), (E18), (E21), (E29), (E34), (E36), (E41), (E47), (E54), (E55), (E59), (E61), (E64), (E71)
- “{...}necessary to provide for the adequate renewal of this human resource.” (E8), (E17), (E23), (E25), (E28), (E37), (E40), (E45), (E50), (E58), (E62), (E67), (E73)
- “{...}necessary to meet the challenges posed by the current increase in surgical activity and to ensure the quality of care {...}” (E13), (E24), (E42), (E48), (E56), (E63), (E69), (E74), (E77), (E79)

Despite the predominance of positive opinions on the need for the training of specialist nurses, the authors also registered divergent opinions, which are presented below.

- “{...} this type of training is not necessary to assume the care practice of the nurse anesthetist {...}” (E9), (E57), (E78)
- “The training of specialist nurses is going to make our work more complex.” (E20), (E53)

Strategies for the training of nurse anesthesiologists

Nurses certified for the practice of anesthesiology in Villa Clara province mostly perceive that among the strategies to achieve the training of specialist nurses in anesthesiology, resuscitation and pain relief is the design and approval of a program for this specialty by the National Postgraduate Directorate of the Ministry of Public Health, as well as the request by certified nurses for this postgraduate training. Some voices illustrating these arguments are briefly presented here:

- “...meeting with the head of the provincial nursing section and raising this need is an option {...} years before, we were able to restart the training of specialists in other areas thanks to this strategy.” (E1), (E4), (E12), (E18), (E26), (E33), (E39), (E44), (E47), (E49), (E54), (E56), (E62), (E65), (E68), (E73), (E77), (E80)
- “{...} it is also necessary to involve the Cuban Nursing Society {...} it has always been directly related to the professional improvement of its associates.” (E2), (E5), (E7), (E11), (E14), (E16), (E19), (E21), (E24), (E27), (E29), (E32), (E36), (E38), (E43), (E45), (E52), (E60), (E67), (E71), (E79)
- “{...}until it is seen as a real need, we will not succeed in making anesthesiology one of the nursing specialties {...}” (E3), (E6), (E8), (E17), (E23), (E28), (E31), (E35), (E42), (E46), (E50), (E59), (E64), (E70), (E75), (E79)
- “Approval by the Postgraduate Department of the Ministry of Public Health and also by the Ministry of Higher Education is required {...}”

the specialty program is designed by specialists designated by these instances." (E10), (E13), (E15), (E22), (E25), (E30), (E34), (E37), (E40), (E41), (E48), (E51), (E55), (E58), (E61), (E63), (E66), (E69), (E72), (E74), (E76)

The discourses were dominated by suggestions on strategies to achieve the training of nurse anesthesiologists; however, there were also disagreement perspectives:

- *"A training program is not going to change anything about what we have done so far."* (E9), (E57)
- *"I don't think it's necessary to do anything, we'd better continue like this."* (E20), (E53)
- *"It takes a long time from the time we apply for it to the time it is approved, everything takes a process that often becomes bureaucratic."* (E78)

Discussion

In 2020, the Medical Sciences Publishing House published the second edition of the Anesthesia Manual for Nurses,¹⁶ which, together with other educational efforts, such as editions of diplomas, courses, and training, have become fundamental pillars in the improvement of what are known today as nurse anesthetists.

Promoting the professional development of nursing human resources in each of their areas of action is undoubtedly a concern of the Ministry of Public Health, the Ministry of Higher Education and the Cuban Nursing Society, as well as raising the quality of the care provided.

The surgical area has specific characteristics,

different from the rest of the services in which nursing develops its activity. The care of the patient's evolution in anesthesia procedures before the surgical event makes it necessary for the nursing professional to be constantly updated, in order to be able to approach them in an adequate way, facilitating the patient's comfort and minimizing the associated surgical risks. For these reasons, the authors consider it essential for nurses to specialize in this area of care.

Advances in surgical procedures, resuscitation, and pain therapy, together with the implementation of new technologies, make anesthesiology in the surgical area a highly complex field. Nursing professionals must respond to this new reality by means of a solid, specific and continuous training to develop in a holistic and competent way the tasks related to care in this area of action.

Anesthesia and operating room nursing requires quality training, determined and complex, based on efficiency and quality parameters such as anesthetic safety of the patient. The evolution of the specialty in recent years, both from the pharmacological and technological point of view, is a recognized fact that has contributed significantly to the progress of surgery. In this aspect, the collaboration of the nurse anesthetist is fundamental to achieve the care objectives, as has been pointed out by specialists in most countries.

The vision of a training program for nurse specialists in anesthesiology and resuscitation should be aimed at achieving excellence in the training of these human resources in these health care contexts. This will make it possible to have many specialists with high scientific, technical and

humanistic preparation, committed to the principles of the Revolution, who act in accordance with the policy and strategy of the Ministry of Public Health, and who are focused on achieving care that translates into superior quantitative and qualitative changes in the quality of life and satisfaction of the population.¹⁶

The antecedents in Cuba regarding the training of certified nurses for the practice of anesthesiology date back to 1962. In view of the lack of personnel at the beginning of the triumph of the Revolution, a select group of nurses was trained through intensive theoretical and practical courses to organize and support the work of anesthesiologists. Since then, this need, as well as the figure of the nurse anesthetist, has lasted for six decades.¹⁷

The results obtained in the present study, in relation to the age of nurse anesthetists in Villa Clara province, show that this position is often assigned as a way of work improvement to professionals who have worked for years in other areas of care, which may guarantee certain experience if they come from units of care for seriously ill patients, but does not guarantee specialization.

The COVID-19 pandemic has changed the paradigm of medical care with a set of implications and precautions to be considered in anesthesiology care, which makes the need for the training of qualified and expert nursing human resources in this activity even more urgent.¹⁸

In other countries, such specialization exists, as is the case of the University of Oviedo, which has a training program for University Specialists in Surgical Nursing and Anesthesia, which lasts one year and consists of four modules with a specific program, methodology and evaluation system. Another

example is the Master of Science in Nursing with Specialty in Anesthesia at the School of Nursing of the University of San Juan, Puerto Rico. This program now has a doctoral degree, which gives it a transcendent role in postgraduate training.

Conclusions

The nurses certified for the practice of anesthesiology in Villa Clara have the general perception that the training of nurse specialists in anesthesiology is necessary for the holistic development of the profession and the achievement of better standards of care in clinical practice in this area of care. On the other hand, they believe that among the strategies that can be implemented for the training of nurse specialists in anesthesiology, resuscitation and pain relief is the approval of this specialty by the National Postgraduate Directorate of the Ministry of Public Health. This requires the request of professionals for this postgraduate training, as well as the design of a program, for which the specialization programs that exist in institutions at the international level can be used as a reference.

Referencias

1. Maslen Bonnane M, Bonnane Martínez C, Leliebre Dellundet I, Rodríguez Clemente K, Rodríguez Aguilar R. Reseña histórica sobre la Enfermería en el Hospital General Docente "Dr. Agostinbo Neto" de Guantánamo. *Revista Información Científica*. 2012; 76(4). Available from: <https://cutt.ly/YwkStdBC>
2. San Martín Osés V, Rivas Riveros E. Enfermeras anestesistas años 1970 a 1980,

- hospitales terciarios: rol del profesional. *South Florida Journal of Health*. 2021;2(2):175-82. Available from: <https://doi.org/10.46981/sfjlv2n2-001>
3. **Rojas Santana O, Dávila Cabo de Villa E, Molina Lois RM, Rojas Molina I.** Historia de la anestesiología y reanimación en Cienfuegos. *Medisur*. 2021;19(5):736-40. Available from: <https://cutt.ly/EwkSyOfz>
 4. **Torres Montes de Oca A, Agüero Martínez MO, Cuadréns Villalón A.** Visión de las especialidades de anestesia y cirugía en Cuba a través de apuntes históricos. *Rev Ciencias Médicas*. 2020;24(6). Available from: <https://cutt.ly/XwkSuznz>
 5. **Cuba.** Resolución Núm. 140/2019. Reglamento de la Educación de Posgrado de la República de Cuba. (GOC-2019-776-O65). La Habana: Gaceta Oficial de la República de Cuba. 2019; 65: 1440-1447. Available from: <https://cutt.ly/lwkSiyJT>
 6. **Naranjo Hernández Y, González Bernal R.** Investigación cualitativa, un instrumento para el desarrollo de la ciencia de Enfermería. *Arch méd Camagüey*. 2021;25(3). Available from: <https://cutt.ly/RwkSo8Wr>
 7. **Ceballos Ramos LM, Rodríguez Flores LA.** Estrategia para el perfeccionamiento de la asignatura Elementos de Investigación Cualitativa en Salud. *Rev Ciencias Médicas*. 2020;24(2). Available from: <https://cutt.ly/FwkSpzqn>
 8. **Paim L, Trentini M, Schmidt Reibnitz K.** Metodología de investigación convergente para la asistencia de enfermería, en: Marta Lenise do Prado, Maria de Lourdes de Souza, Marisa Monticelli, María Cristina Cometto & Patricia Fabiana Gómez (eds.). *Investigación cualitativa en enfermería. Metodología y didáctica*. Washington, D.C: OPS, 2013, 117-33 pp. <https://iris.paho.org/handle/10665.2/51587>
 9. **Escobar Tobón AL, Álvarez del Río RF, Salazar Maya AM.** Estado de la investigación en enfermería de América Latina: una revisión de la literatura. *Investigación en Enfermería, Imagen y Desarrollo*, 2021; 23:1-10. Available from: <https://doi.org/10.11144/Javeriana.ie23.eica>
 10. **Trentini M, Paim L.** Pesquisa em enfermagem: uma modalidade convergente-assistencial. Florianópolis: Universidade Federal de Santa Catarina, 1999.
 11. **Trentini M, Paim L.** Pesquisa convergente-assistencial: um desenho que une o fazer e o pensar na prática assistencial em saúde-enfermagem. Florianópolis: Insular, 2004.
 12. **Vives Varela T, Hamui Sutton L.** La codificación y categorización en la teoría fundamentada, un método para el análisis de los datos cualitativos. *Inv Ed Med*. 2021; 10(40): 97-104. Available from: <https://cutt.ly/CwkShoGV>
 13. **Tejero González JM (ed.).** Técnicas de investigación cualitativa en los ámbitos sanitario y sociosanitario. Cuenca: Universidad de Castilla-La Mancha; 2021. Available from: <https://cutt.ly/ewkSjOgJ>
 14. **Bardín L.** Análise de conteúdo. Brasil: Editorial Casa de Ideias; 2016.
 15. **Saldaña J.** The Coding Manual for Qualitative Researchers. Los Angeles: SAGE; 2016.
 16. **Dávila Cabo de Villa E, Hernández Dávila CM.** Manual de anestesia para enfermeros. La Habana: Editorial Ciencias Médicas; 2020.
 17. **Fuentes Díaz Z, Rodríguez Salazar O, Hernández Hernández R.** Implementación del programa

- de formación de la especialidad de Anestesiología y Reanimación en Camagüey. Rev Hum Med. 2017;17(3):454-76. Available from: <https://cutt.ly/HwkSzqXf>
18. **Torres Montes de Oca A, Puente Téllez H, Ramírez López B.** Desafíos para el anestesiólogo en pacientes con Covid-19. Rev cuba anestesiol reanim. 2020;19(2). Available from: <https://cutt.ly/hwkSz7ld>