History of knowledge construction in trauma and orthopedic nursing care

Alessandra Cabral de Lacerda¹, Maria Angélica de Almeida Peres², Ana Cristina Silva de Carvalho³; Rosa Gomes dos Santos Ferreira⁴; Tânia Cristina Franco Santos⁵; Pacita Geovana Gama de Sousa Aperibence⁶

¹Universidade do Grande Rio, Rio de Janeiro, RJ, Brazil;²Universidade Federal do Rio de Janeiro, Rio de Janeiro, RJ, Brazil;³Hospital Municipal Miguel Couto, Rio de Janeiro, RJ, Brazil;⁴Universidade Federal do Rio de Janeiro, Macaé, RJ, Brazil

ABSTRACT
Objective: to analyze the development of trauma and orthopedic nursing care from the very first class of residents of a specialized hospital. Method: historical methodology study with a qualitative approach. The sources consisted of written and oral documents. Results: working in a specialized institution was the starting point for nurses who were seeking specialization in the field of trauma and orthopedic care as they noticed the power-knowledge acquired through care work, plus they were willing to improve assistance and take the hospital up to an institute level. Strategies used include the search for partnerships with universities and associative-type institutions, in addition to creating their own association. Final considerations: trauma and orthopedic nursing care expanded its scientific space by creating a specialization course together with an academic unit. It was possible to define the academic and institutional power of the nursing staff in the health institution by considering the training process of its nurse specialists, who consisted of a group recognized for their scientific knowledge.

Descriptors: History of Nursing; Specialization; Orthopedic Nursing Care; Hospital Accreditation; Nursing Care.

RESUMO
Objetivo: analisar o desenvolvimento da enfermagem traumato-ortopédica a partir da primeira turma de residentes de um hospital especializado. Método: o estudo seguiu a metodologia histórica com abordagem qualitativa. As fontes foram documentos escritos e orais. Resultados: trabalhar em uma instituição especializada foi o ponto de partida para a busca por especialização de enfermeiras atuantes no cuidado traumato-ortopédico, que perceberam o saber/poder adquirido no trabalho assistencial, além da intenção de qualificar a assistência e elevar o hospital a instituto. Estratégias empregadas reúnem a busca por parcerias com instituições universitárias e associativas, além da criação de uma associação própria. Considerações finais: a enfermagem traumato-ortopédica ampliou seu espaço científico ao criar um curso de especialização com uma unidade acadêmica. Foi possível delimitar o poder acadêmico e institucional da enfermagem na instituição de saúde pela formação de enfermeiras especialistas constituindo um grupo de reconhecido pelo saber científico.

Descritores: História da Enfermagem; Especialização; Enfermagem Ortopédica; Acreditação Hospitalar; Cuidados de Enfermagem.

RESUMEN
Objetivo: analizar el desarrollo de la enfermería traumatólogica ortopédica a partir del primer grupo de residentes de un hospital especializado. Método: estudio con metodología histórica con un enfoque cualitativo. Las fuentes fueron documentos escritos y orales. Resultados: el trabajo en una institución especializada fue el punto de partida para la búsqueda de la especialización de las enfermeras que trabajaban en la atención traumatólogica ortopédica, quienes notaron el saber/poder adquirido en el trabajo asistencial, además de la intención de cualificar la atención y elevar el hospital al nivel de instituto. Las estrategias empleadas incluyen la búsqueda de alianzas con instituciones universitarias y asociaciones, y la creación de una asociación propia. Consideraciones finales: la enfermería traumatólogica ortopédica amplió su espacio científico mediante la creación de un curso de especialización con una unidad académica. Se logró delimitar el poder académico e institucional de la enfermería en la institución de salud a través de la formación de enfermeros especialistas, que es un grupo reconocido por el conocimiento científico.

Descritores: Historia de la Enfermería; Especialización; Enfermería Ortopédica; Acreditación Hospitalaria; Cuidados de Enfermería.

INTRODUCTION
Nursing care related to orthopedics and traumatology falls within the scope of medical-surgical nursing as it focuses on repairing bone deformities. Knowledge related to this practice expanded thanks to the development of both surgical techniques and diagnostic/therapeutic resources for correcting diseases and injuries.

The field of traumatology associated with orthopedics encompasses victims of musculoskeletal injuries. It also operates in situations involving diseases, congenital and developmental disorders, traumas, metabolic disorders, degenerative diseases, infections, and other impairments that affect the musculoskeletal and joint systems, as well as the supporting connective tissue. It comprises clinical, surgical and rehabilitation health problems which may be
classified as acute, chronic, or disabling. It includes prevention, care, and rehabilitation for individuals in all age groups, families and communities³.

The Brazilian Federal Council of Nursing (COFEN), considering the need for Nurse qualification based on technical and scientific criteria has established trauma and orthopedic nursing care as an area of knowledge since 2011, combining the areas of orthopedics and traumatology into one field that recognizes such career specialty³.

Trauma and orthopedics, also known as T&O nursing care is a field full of complexity due to its technical peculiarities and constant need for update in view of the changes seen in the Brazilian epidemiological and demographic profile considering the increase in urban violence and population aging, factors that lead to an increased demand for health care especially within the scope of the Brazilian Unified Health System (SUS). In addition to these factors, studies point to the mortality rate resulting from injuries caused by falls among the elderly population⁴,⁵.

Nursing performance in orthopedics and traumatology requires professionals capable of providing care in the prevention of injuries and its limitations, as well as in surgical procedures and rehabilitation, thus encompassing the biological, psychological, and social needs of the patients⁶.

In Rio de Janeiro, the Jamil Haddad National Institute of Traumatology and Orthopedics (INTO), affiliated to the Health Care Department of the Ministry of Health (MS) is a national reference for providing high complexity care focused on traumatology, orthopedics and rehabilitation, and it stands out in the national scenario for producing research, providing specialized human resources training, developing scientific materials, clinical and assistance protocols, in addition to providing advisory services for the Ministry of Health, which has been occurring since 1994 when it was founded under the name of Dr. Mario Jorge Trauma and Orthopedic Hospital. The government decision to create the Institute established that the hospital, a national reference in the above-mentioned specialties, would provide a great level of excellence to the institution⁷.

In this context, in the 1990s, the nurses who managed the hospital and the continuing education focused on nursing care at the INTO realized that, although they had practical knowledge capable of maintaining high quality of trauma and orthopedic nursing care, it was necessary to define a specific body of knowledge, a know-how directly aimed at nursing care which, at the same time, would distinguish their professional practice from other health professionals working in this area and that would also bring power and greater autonomy to the category.

In 2000, the INTO, which has as one of its missions the training of professionals capable of providing excellent services in orthopedics and traumatology to assist the users of the SUS, as a proper scenario for developing practical activities, became part of the postgraduate course, following the nursing residency models used in public universities. Thus, the nurses working at the INTO, seeking to improve their nursing knowledge in trauma and orthopedic care, partnered with higher education nursing institutions. Firstly, to provide expertise to the nurses working at the institution and, secondly, to implement specialized training at a national level, considering the importance of articulating specific knowledge⁸.

In this context, the present study aimed to analyze the development of trauma and orthopedic nursing care from the very first class of residents of a specialized hospital.

**METHOD**

This is a historical-social study with a qualitative approach. This research approach provides a reading of the past based on social and theoretical perspectives selected by the researcher⁹.

It was decided to use the thematic oral history technique to investigate a recent but fundamental period for understanding the question examined¹⁰ and, to this end, a script made up of questions corresponding to aspects relating to the experience of the nurses was used - from the creation of the first course specialized in trauma and orthopedic nursing care in Rio de Janeiro to the start of the activities performed by the very first nursing residency class in the area.

The scenario used was the INTO from 1995 to 2000, initially marked by the partnership between the nurses of the Institute and the School of Nursing of the Rio de Janeiro State University (UERJ) which offered, in 1995, the postgraduate course in Trauma and Orthopedic Nursing Care and ended up training six nurses from the Institute, culminating with the creation of the specialized postgraduate course in the form of in-service training for Nurses, always following the residency models used at the INTO, in 2000.

The sources used in this study were written documents from the INTO document collection as well as the oral history of ten nurses who participated in the implementation of the course, eight of whom were clinical nurses from the INTO and two were professors at the Alfredo Pinto School of Nursing (EEAP) of the Federal University of the State
of Rio de Janeiro (UNIRIO). The professors included were the coordinator of the Nursing Residency Program at UNIRIO and the head of the Medical-Surgical Nursing care department during the present study's time frame.

After checking their authenticity, the written documents were compared with the oral history told by the participants. The historical methodology of identifying facts in documents, the triangulation of sources and the organization and interpretation of data were techniques used to construct the historical narrative based on Foucault’s power-knowledge perspective through which it can be understood that there is no power without the correlative constitution of a field of knowledge. Based on the author’s ideas originating from this statement, this historical narrative attributes to the speeches of the nurses from the INTO a character of specialized knowledge in trauma and orthopedic nursing care.

This study is based on a doctoral thesis, and its research protocol was approved by the Research Ethics Committees of the institutions involved.

RESULTS

The results of the study showed similarities between the consolidation of trauma and orthopedic nursing knowledge and the development of other specialized nursing areas, whose daily development of care practices builds a type of knowledge specific to that group involved in the daily care of people with health problems.

The nurses' knowledge applied to the care provided at the INTO was a result of their skills and attitudes of valuing their own professional practice, from which clinical reasoning would emerge and be shared with other health professionals. Furthermore, these nurses sought articulation with the scientific and organizational space of nursing care, where vast improvements in their performance would be made possible.

We always tried to be in touch with “out-of-hospital aspects”. We wanted to be updated in knowledge, not detached from it. (E1)

In view of these initiatives, the nurses focused on developing partnerships to improve their professional development, so they went to UERJ’s School of Nursing to negotiate a partnership, as they were interested in providing specialist certificates to the nurses working at the INTO:

The Continuing Education Nurses and I went to talk to Professor Nalva Pereira Caldas, an important figure at UERJ, about the desire for a Specialization Course in Orthopedic Nursing Care. And we managed to formalize an agreement between the School and the Hospital to grant the title of specialist. (E1)

In this way, the nurses working at the INTO invested in their perceptions, knowledge, and experiences to develop a process of specialization for the institution’s nurses in order to prepare specialized professionals for professional practice, which would require investment in strategies for acquiring scientific recognition and political organization.

It was an agreement with UERJ, and I was responsible for teaching the whole Pediatric Orthopedics’ program, so I came up with all the content for this discipline. (E2)

At the end of the year, the Medical Director would hold an event for the Medical Residents who were graduating, so I asked him if I could extend the celebration to the nurses who would also be specialists in traumatology and orthopedics. So, he requested that a symbolic diploma be made. (E1)

The class of trauma and orthopedic nursing specialists graduated from UERJ in 1995 took a one-year course and was the only existing class, as the partnership was not renewed. This fact encouraged the INTO nursing coordination to plan new strategies since the main motivation was still to train specialists in trauma and orthopedic nursing care.

One of the strategies was to resume the meetings between the nurses who worked in the areas of orthopedics and traumatology in 1996. Such meetings had been taking place since 1984, with some time gaps, and were attended by nurses interested in this area of activity who worked in hospitals in Rio de Janeiro and who made up the Traumatology and Orthopedics Nursing Group.

This resumption of meetings after almost seven years took place at the INTO and, with the encouragement and support of the Brazilian Nursing Association (ABEN) - Rio de Janeiro Division, aimed to create the Brazilian Nursing Association for Traumatology and Orthopedics (ABENTO), later called Brazilian Nursing Society for Traumatology and Orthopedics (SOBENTO), which would derive from the previously mentioned Nursing Group.

We had ABENTO and we had been taking refresher courses and carrying out studies. We would come up with events both within the hospital and for the external public. In this way, we were already starting to make changes aimed at improving the quality of care provided by the professionals. (E3)
In the excerpt taken from the collaborator’s speech presented below, there is an evident demonstration of the continued desire to train specialists in trauma and orthopedic nursing care after the first attempts to consolidate the Specialization course:

*We didn’t know how to do it, but we wanted to have nurse specialists, we felt that the specialty required this type of initiative.* (E1)

Next, another collaborator cites previous strategies that led to the organization of the Trauma and Orthopedic Hospital as an Affiliated Unit of the Ministry of Health.

*I believe that the motivation for establishing the INTO as a scenario for practical activities during Residency came from ABENTO. We were already concerned with the technical-scientific improvement of the nursing team. The university noticed us. It could be an opportunity for students to learn about an area that still did not receive much attention within the university.* (E3)

On the other hand, the request for hospital accreditation by the INTO adds to the willingness to establish a partnership with the EEAP/UNIRIO Nursing Residency:

*The Nursing Residency was very important because at the time, at the INTO, there were many nurses retiring. There was no one to pass the service on to.* (E2)

**DISCUSSION**

The second half of the 1990s was marked by the interest of public health institutions in obtaining hospital accreditation from the Brazilian Unified Health System, which involved institutional recognition and the acquisition of greater financial investment. The Hospital dos Acidentados was turned into an INTO in 1994 and, since then, tried to improve its position within the Ministry of Health.

In this movement of institutional improvement, the nurses who occupied a position of autonomy in terms of managing the team and providing nursing care in the trauma and orthopedic sector felt the need to acquire and grant the title of ‘nurse specialist’ in the area to ensure that the knowledge supporting their practice was recognized as scientific. This idea was supported by the board of the INTO, an institution already consolidated as a national reference in the area and interested in going through the hospital accreditation process.

The nurses working at the INTO were aware that their knowledge was a result of the experience gained by their scientifically based professional practice. However, the nursing context was already one of specialization and the trauma and orthopedic nursing team knew that they should not be limited to their daily practices and have no postgraduate studies in the area. It was also important that the knowledge was consolidated through the title of specialist in order to ensure that the nursing profession continued to develop at the same pace of growth as the INTO, especially in the second half of the 1990s.

Faced with the intention of specializing those who considered themselves capable but found themselves unable to do so because they did not belong to an educational institution, the INTO's nursing management sought to form a partnership with UERJ's School of Nursing, which provided subsidies to carry out a specialization course in nursing care focused on traumatology and orthopedics that took place in 1995.

Therefore, the figure of Nalva Pereira Caldas, a prestigious nurse and professor at the School of Nursing stands out in the partnership with UERJ, as she appreciated the proposal presented by the INTO nurses and created the course which, although short-lived, was the first step towards training specialists in trauma and orthopedic nursing care in Rio de Janeiro, giving visibility to this area of expertise.

The creation of a specialization course, in addition to generating recognition through the title of nurse specialist, made it possible to review a specific body of knowledge related to trauma and orthopedic nursing care - what Foucault (1969) calls the construction of an object based on discourse, which is only possible when there are discursive practices that highlight them, transform them or put them on hold.

In this sense, it is considered that the construction of objects based on the knowledge acquired through the implementation of care practices in orthopedics and traumatology by the nurses was initially linked to the search for theoretical deepening, which was subsequently grouped and carried out in partnership with medical professionals. This allowed them, first, to develop the specialization in trauma and orthopedic nursing care at UERJ where, due to the lack of professors to teach classes on the subject, allowed the professionals working at the INTO to act as visiting professors, thus empowering them to train the first specialists in trauma and orthopedic nursing in Rio de Janeiro.

UERJ’s School of Nursing did not continue with the course after the graduation of the first group of specialists, placing in the hands of the INTO nurses the challenge of seeking a new strategy to increase the number of professionals with this title in the nursing sector.
The employment of strategies in favor of specialization demonstrates that these nurses were in line with the Brazilian nursing development that took place in this period when Lato Sensu Specialization Courses were expanding in order to prepare staff and issue the title of specialist in different areas of the nursing practice, legitimizing their specialized knowledge and practices and reorganizing the spaces of power in specialized health care scenarios.

This strategy proved to be effective since UERJ’s School of Nursing granted the title of specialist that the INTO was not able to offer as it had not yet been accredited as an educational institution. In this process of articulation with a nursing school, it becomes evident that the INTO nurses used their power of authority in the space of trauma and orthopedic care to obtain the required training for the first nursing specialists in traumatology and orthopedics back in 1995, and all specialized professionals worked at the INTO.

The insertion of these postgraduate nurses from the INTO specializing in traumatology and orthopedics provided the group with a new hierarchical position before the institution’s nursing team and other nurses who worked in the area. This is because knowledge, according to Foucault (1969), refers to a type of expertise and occurrence closely linked to power13. Furthermore, the modern subject, in addition to being a producer of knowledge, is also produced within this knowledge in a dialectical movement.

In this process of building relationships that aimed to ensure the title of specialist, the nurses working in orthopedics and traumatology, with substantial leadership from the INTO nurses and supported by the ABEn-RJ, found in the creation of ABENTO a way to reaffirm their desire to organize knowledge and practices aimed at training specialists in these areas of expertise. Furthermore, the creation of an association could provide the INTO nurses with the necessary power to gain recognition for their expertise in orthopedics and traumatology and, consequently, capitalize political strength to make this knowledge a specialty, giving them power-knowledge.

Thus, it is important to note that even with knowledge arising from their professional practice, the interviewees addressed the need to deepen and expand scientific knowledge in orthopedics and traumatology, train professionals and have an association that could bring scientific support and recognition to the group. In Brazil, class organizations have been contributing to fight for their own interests and society’s interest as a whole; therefore, the motivation for creating ABENTO was to be able to grant the title of specialist to nurses who worked in the area, especially nurses from the INTO.

Nursing entities are important and necessary as they have contributed decisively to fight for the category’s own interests and those of society. These contributions focus on the various axes of professional activity and seek to defend a political project aimed at providing professional training and qualification that is coherent both with the interests of the referred class and with social demands, as well as securing spaces for the dissemination of studies on phenomena that interest the practitioners of the profession14.

Recognizing this preliminary trial for implementing specialization led the INTO nurses to express that they already felt equipped with specialized knowledge to set up the scenario as one of the practical field units in the Residency Course. The EEAP endorsement, which guaranteed the partnership as a provider of the theoretical content and diploma allowed these nurses to envision specialized learning through practical immersion of the nursing residents in surgical clinic in a specialized scenario.

Thus, by launching yet another strategy that would consolidate nursing knowledge in the area, the then head of the INTO’s nursing division negotiated a partnership with the EEAP, including the INTO as one of the scenarios for resident practice, as this was a body linked to the MS, thus fulfilling this main requirement, among others.

In this way, for the nursing team, the hospital would also be a place for specialized care, production of knowledge, consolidation of practices through theoretical studies carried out by residents and a possible place of continuing education for nurse practitioners. These power acquisition strategies require an action that results in effective practices for society in the educational and political fields15.

One of the strategies articulated by the nurses was the possibility of deepening the theoretical discussions and the applicability of the Nursing Process implementation to which the residents would contribute considerably, since the coordinators and members of continuing education could recognize the weaknesses of the institution’s professionals regarding the implementation of this methodology, a factor that would be fundamental in the certification process for hospital accreditation for which the INTO was applying.

The nursing specialty, as a field of knowledge and practice in political and historical contexts, presents an organizational diversity through theoretical and practical tools. Thus, the consolidation of the profession on the national and international scenario is modified by numerous conditions, which includes the possibility of sustaining
itself in the academic-scientific environment as a care practice capable of issuing coherent speeches about itself and its position in society and in science’s collective undertaking.25

Thus, educating nurse specialists at the institution in partnership with the EEAP/UNIRIO allowed the training of qualified, critical, and reflective professionals focused on trauma and orthopedic nursing care within the scope of the SUS, while the Institute became stronger as a reference delivering excellence in care, education, and research.

Thus, this study highlights the strategies used by the trauma and orthopedic nursing team that led to the recognition of their acquired knowledge, resulting in an institutional academic power legitimized by the acquisition of the specialization diploma.

The study highlighted strategies of the INTO nursing team for acquiring knowledge in traumatology and orthopedics, which culminated in the implementation of the specialization course in the form of a Nursing Residency in cooperation with a university. The nurses’ objective and interest in turning their know-how and practices into a level of expertise certified by an educational institution led them to go beyond the scope of this group, that is, they were willing to certify the importance and specificity of this type of knowledge for the institution as a whole and for the Nursing science as an established knowledge.

Final Considerations

Considering the need to formalize specific knowledge regarding orthopedic and trauma nursing care in order to expand it, certify it and update it, nurses at the INTO made use of interinstitutional dialogue and symbolic power attributed to representative entities (ABEn-RJ, EEAP/UNIRIO) as a strategy to create the referred specialization course. However, the INTO itself, recognized by its high standards and for being an institution that trains professionals to work at the SUS, also had its symbolic power, which made the approach easier.

The creation of a specialization course and a Society of Specialists (ABENTO) shows the nurses’ purpose - they knew they had unique knowledge and practices in orthopedics and traumatology; however, it was a type of expertise that required academic approval.

The acquisition of a nursing staff possessing vast and specific practical knowledge, once certified by cooperation agreements with academic spheres both through a lato-sensu postgraduate course and a residency program, promotes the application of the power-knowledge proposed by the Foucauldian political capitalization.

From this perspective, it is possible to affirm that the partnership strategy to turn the INTO into a training scenario for specialists in trauma and orthopedic nursing care, a role it maintains to this day with its participation in the EEAP/UNIRIO Residency Program, consolidates the institution’s nursing team as a holder of its own knowledge, recognized within such specialty for its unique performance and for focusing on the training of new professionals in the area.

It is believed that the findings of this study are beneficial because they allow reflection on a course that is aimed at specializing nurses in specific areas and, therefore, will possibly stimulate ideas for further thoughts on courses of this nature. Furthermore, they allow us to understand and contextualize the nursing strategies used in the training process of trauma and orthopedic nursing specialists, combined with the need to train human resources for the SUS.

REFERENCES


Authors' contributions