

CLINICAL-ACADEMIC NURSING CAREERS AND INSTITUTIONAL THEORY

CARREIRAS CLÍNICO-ACADÊMICAS DE ENFERMAGEM E A TEORIA INSTITUCIONAL

CARRERAS CLÍNICO-ACADÉMICAS EN ENFERMERÍA Y LA TEORÍA INSTITUCIONAL

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## ABSTRACT

**Objective:** This study aims to propose a theoretical framework based on Institutional Theory to implement clinical-academic nursing careers (CAC), since nurses who combine care work with research tend to share best clinical practices with their colleagues, nursing students, and even with their teachers. **Method:** We propose a framework with five different steps based on Institutional Theory. **Theoretical Foundation:** We adopted the literature about CAC, evidence-based practice, errors in healthcare, continuing education, communities of practice and Institutional Theory. **Results:** By introducing the CAC, the use of evidence-based practice will generate cost reduction, increased quality of services provided and greater satisfaction for these professionals. **Conclusions/Contributions:** The barriers that prevent the successful development of this career can be mitigated by implementing continuing education and communities of practice in a private hospital that already has accreditation and prior structure for the development of research. It is necessary to change the way nurses are perceived within the organizational structure.

**Keywords:** Nursing. Clinical-academic careers. Clinical nursing practice.

## RESUMO

**Objetivo:** Este estudo tem como objetivo propor um referencial teórico baseado na Teoria Institucional para a implementação da carreira clínico-acadêmica de enfermagem (CAC), uma vez que enfermeiros que aliam o cuidado à pesquisa tendem a compartilhar as melhores práticas clínicas com seus colegas, estudantes de enfermagem e até mesmo com seus professores. **Método:** Propomos um framework com cinco etapas diferentes baseadas na Teoria Institucional. **Fundamentação Teórica:** Adotamos a literatura sobre CAC, prática baseada em evidências, erros nos cuidados à saúde, educação continuada, comunidades de prática e Teoria Institucional. **Resultados:** Ao introduzir o CAC, a utilização da prática baseada em evidências gerará redução de custos, aumento da qualidade dos serviços prestados e maior satisfação desses profissionais. **Conclusões/Contribuições:** As barreiras que impedem o desenvolvimento bem-sucedido desta carreira podem ser mitigadas com a implementação de educação continuada e comunidades de prática em um hospital privado que já possui acreditação e estrutura prévia para o desenvolvimento de pesquisas. É necessário mudar a forma como os enfermeiros são percebidos dentro da estrutura organizacional.

**Palavras-chave:** Enfermagem. Carreira clínico-acadêmica. Prática clínica de enfermagem.

## RESUMEN

**Objetivo:** Este estudio tiene como objetivo proponer un marco teórico basado en la Teoría Institucional para implementar las carreras clínico-académicas de enfermería (CAC), ya que las enfermeras que combinan el trabajo de cuidado con la investigación tienden a compartir las mejores prácticas clínicas con sus colegas, estudiantes de enfermería e incluso con sus propios maestros. **Método:** Proponemos un marco con cinco pasos diferentes basados en la Teoría Institucional. **Fundamento Teórico:** adoptamos la bibliografía sobre CAC, práctica basada en evidencias, errores en los cuidados con la salud, educación continuada, comunidades de práctica y Teoría Institucional. **Resultados:** Al introducir las CAC, la utilización de la práctica basada en evidencias generará reducción de costos, aumento en la calidad de los servicios prestados y mayor satisfacción de estos profesionales. **Conclusiones/Aportes:** Las barreras que impiden el desarrollo exitoso de esta carrera pueden ser mitigadas implementando educación continua y comunidades de práctica en un hospital privado que ya cuenta con acreditación y estructura previa para el desarrollo de investigaciones. Es necesario cambiar la forma en que las enfermeras son percibidas dentro de la estructura organizacional.

**Palabras clave:** Enfermería. Carrera clínico-académica. Práctica clínica de enfermería.

## INTRODUCTION

### Errors and evidence-based practice

In 2017, a total of 148 people died in all Brazilian hospitals. This means that, on average, 6 people died due to serious adverse events, of which 4 could have been avoided. The most frequent events are generalized infection (septicemia), pneumonia, urinary tract infection, surgical site infection, access complications, vascular and other invasive devices, pressure injuries, errors in the use of medications, and surgical complications such as hemorrhage and laceration (Couto, Pedrosa, Roberto, Daibert, Abreu, & Leão, 2018). In the United States, another study points out that approximately 30% of patients do not receive care according to the most recent scientific evidence, and approximately 25% of patients receive unnecessary or potentially harmful care (McGlynn et al., 2003).

When only the emergency services are analyzed, characterized by a more intense pace and greater burden on nurses when compared to other sectors of a hospital (Kiyamaz & Koç, 2018), medication errors were presented by several authors who advocate training as a way to increase the quality of care (Santos, Rocha, & Sampaio, 2019; Shitu, Aung, Tuan Kamauzaman, & Rahman, 2020). This context leads to the need to expand the knowledge of nursing professionals about all the risks involved in their activities (Källberg, Ehrenberg, Florin, Östergren, & Göransson, 2017), thus avoiding not only the repetition of errors, but avoiding that the nurses become victims of these same errors (Ajri-Khameslou, Abbaszadeh, & Borhani, 2017).

Therefore, care activity based not only on personal experience, but on evidence-based practice (EBP) is even more relevant because it helps in reducing costs, increases the quality of the services provided, and are more satisfactory for those professionals (Brooks, Titler, Ardery, & Herr, 2009; Yoder, Kirkley, Mcfall, Kirksey, Stalbaum, & Sellers, 2014). This is because nurses who combine care work with research, which implies the development of clinical-academic careers (CAC), tend to share best clinical practices with their colleagues, nursing students and even with their teachers (Weir & Ozga, 2010).

However, even though EBP should become the standard of care, there are still barriers to overcome and prevent nurses from developing CAC. They are numerous and can be both internal and external: lack of time to read published studies; lack of facilities or resources; lack of skills to work with EBPs; the hierarchical structure of management that discourages CAC (Oude Rengerink et al., 2011; Zwolsman, te Pas, Hoof, Wieringa-de Waard, & van Dijk, 2012), or the prioritization of research in universities to the detriment of the practice in hospitals (Logan, Gallimore, & Jordan, 2016). Nurses can also be resistant to developing other skills by their colleagues, as well as undergraduate curricula that do not promote research (van Oostveen, Goedhart, Francke, & Vermeulen, 2017).

To reverse this situation, an environment to promote access to research and continuing education is necessary. Thus, nurses can develop a CAC and become familiar with the best EBP, which generates more security for decision-making (Futami, Noguchi-Watanabe, Mikoshiba, & Yamamoto-Mitani, 2020; Lam, Kwong, Hung, & Chien, 2020). Access to knowledge and academic qualification is so relevant that the increased investment in their education is directly related to the reduction of deaths in hospitals due to preventable causes (Aiken et al., 2014).

For the CAC to emerge in hospitals, it is necessary to strengthen the relationships with the universities. Paradoxically, in these institutions, where the knowledge of their research should be researched with the hospitals, the object of research is different from what should be researched in fact, suggesting that there is no integration between these two actors (Lindberg, Persson, & Bondas, 2012).

Another problem for this integration between universities and hospitals seems to be related to their distant location. Hospitals located in metropolitan regions have greater access to professional improvement programs than those located in distant regions (Edward et al., 2019).

Faced with so many barriers to the development of CAC and the need to improve the quality of care provided and reduce costs, the implementation of continuing education has been an important method of training and updating knowledge (Weeks, Coben, Lum, & Pontin, 2017).

## **Continuing education**

Continuing education is a process that expands and updates the knowledge of nurses, which increases the efficiency of the services provided and offers new opportunities to develop new skills for their professional careers. On the other hand, the effectiveness of this project will only occur if the real needs of the professionals involved are detected, which requires prior planning (Malekshahi, Rezaian, Fallahi, & Almasian, 2019).

The American Nurses Association, in 2010, defined continuing education as a "set of systematic professional learning experiences designed to augment the knowledge, skills, and attitudes of nurses and therefore enrich the nurses' contributions to quality health care and their pursuit of professional career goals" (Berman, Snyder, & Frandsen, 2016). Continuing education has this dimension because the technical skills and the critical thinking shown by bedside nurses do not seem to be sufficient to sustain an EBP environment, thus mitigating the possibility of errors. Therefore, nurses must cultivate and internalize the passion for learning throughout their careers. Therefore, the organizations where they work must adopt a healthy work environment that gives merit to continuing education (Skees, 2010).

The growing demand for an environment permeated by access to knowledge requires the organization to build spaces for continued professional development, thus providing effective and competent assistance (Siew & Loh, 2016). In this sense, communities of practice can be allies in the construction and sharing of this much-needed knowledge as a source of resilience, because they are a reflective space to recognize and share the emerging experiences. As they carry out their care activities, trust among team members is consolidated (Delgado, de Groot, McCaffrey, Dimitropoulos, Sitter, & Austin, 2020).

## **Communities of Practice**

Initially developed by Lave and Wenger (1991), the concept of communities of practice has been analyzed by other authors (Brown & Duguid, 1991). Its most important feature is that the components of this informal network not only transfer knowledge but also connect it to their environment (Brown & Duguid, 1991). Thus, an organization can be defined as a set of diverse communities of practice, as they are directly linked to their capacity of unity and trust of the members (Lave & Wenger, 1991).

Trust is built from the interaction of those who are part of it as they must feel safe when exposing their doubts to an individual considered as being competent in a particular topic (Wenger, 2010). It is also important to emphasize that in the groups that are part of a community of practice, although all learn the same things simultaneously, the different skills and individual experiences allow that different knowledge is generated (Brown & Duguid, 2000).

Knowledge is expanded as the individual moves to a central position in this network, because of the contacts established in this path. The intensity of personal contact is observed to be relevant for the transmission of knowledge. It is through mutually supported relationships that the rapid flow of information occurs, allowing the use of specific solutions and tools (Wenger, 1998). In the health care area, communities of practice are even more important. The discussions are focused on the best care practices, thus avoiding that the hierarchical level is a barrier to a fruitful discussion and becoming a space of joint learning (Delgado et al., 2020).

Despite the evidence of a direct relationship between the simultaneous development of the nurses, both in the clinical and academic areas, and the improvement of efficiency and quality of care, several barriers emerge at all times (Aiken et al., 2011; Latter, Clark, Geddes, & Kitsell, 2009). Since the early 2000s, studies have presented strategies to unite these two worlds (research and practice) that do not seem to converge and hinder the development of a CAC for nurses (Weir & Ozga, 2010).

Even the implementation of continuing education or communities of practice has not helped nurses to develop CAC. Part of the barriers already mentioned result from the organizational culture. The change of which would require a demonstration of leadership that promotes the combination of research,

teaching and clinical practice, paving the way to build a CAC for nurses and generating direct benefits for the care provided (van Oostveen et al., 2017).

Another characteristic common to hospitals and also related to culture is the way nurses are perceived within the organizational structure. In some hospitals, while physicians have a structure to conduct research simultaneously with care practice, nurses are unable to develop their CAC (van Oostveen et al., 2017). Nurses have been treated as a cost center, said to be responsible for 25% of the total operational costs (Maenhout & Vanhoucke, 2013) and 44% of the direct costs (Welton, Fischer, DeGrace, & Zone-Smith, 2006), which does not only disregard the degree of attention given, but leads to the lack of economic visibility (Duffield, Kearin, Johnston, & Leonard, 2007; Lasater, 2014). As this difficulty seems to be common to most hospitals, the explanation may be in the Institutional Theory that studies the reasons why organizations within a population (set of organizations of the same segment) have similar features (Lewin & Volberda, 1999).

### **Institutional Theory**

The Institutional Theory is used to explain the roles played by institutions in the organization of society and, in particular, in the structure and functioning of the organizations. They are influenced by normative pressures, either from external sources such as the State, or arising from the organization itself. Under some conditions, these pressures lead the organization to be guided by legitimate elements such as Hospital Accreditation. The adoption of these legitimate elements leads to an isomorphism with the institutional environment in order to increase the probability of survival (Zucker, 1987).

Institutionalist sociologists focus on explaining why organizations adopt certain procedures to the detriment of others; to this end, they resort to the legitimacy that such action has in the environment. If an action is widely validated and legitimized among peers, it has a high chance of being adopted by other organizations, leading to a process of homogenization or isomorphism (Hall & Taylor, 2003).

DiMaggio and Powell (1991) identified three homogenization mechanisms:

a) Coercive isomorphism – a stronger organization exerts formal and informal pressures on another upon which it is dependent, and this may occur in more subtle and less explicit ways;

b) Mimetic isomorphism – given the degree of environmental uncertainty, an organization adopts procedures and practices, including innovations, that have already been developed and approved in other organizations from this specific environment, which does not necessarily lead to the same levels of performance found in the model organization (benchmarking); and

c) Normative isomorphism – common forms of interpretation and action in the face of problems in the organizational environment. It results primarily from professionalization, as professions are subject to the same coercive and mimetic pressures of the organizations. Although several professionals within an organization may differ from each other, they show great similarity with their professional partners in other organizations, since their cognitive base was grounded on the same theoretical references.

Since isomorphism is a restrictive process that forces a unit to adopt structures and processes similar to those of the other units (DiMaggio & Powell, 1991), the next section presents the theoretical framework consisting of five steps, which sequentially help the development of the CAC of nurses, and this will be reflected in gains in quality and efficiency of care.

### **DESIGN**

This is a discursive paper that includes a review of literature about the relation of EBP and clinical-academic nursing careers as a strategy to improve health care quality. To develop facilitators to develop successful clinical academic careers, we propose a framework based on five different steps based on Institutional Theory.

## **METHOD**

Literature about clinical-academic nursing careers, EBP, errors in healthcare, continuing education, communities of practice and Institutional Theory were examined. A brief discussion of the key concepts was used to support our framework as a tool to implement clinical-academic nursing careers, an important strategy to improve quality assistance.

## **RESULTS**

### **Theoretical Framework – A proposal**

Given the existing external and internal barriers (Duffield et al., 2007; Lasater, 2014; Logan, Gallimore, & Jordan, 2016; Oude Rengerink et al., 2011; van Oostveen et al., 2017; Zwolsman et al., 2012), the CAC for nurses, which increases the quality of care and reduces hospital costs (Brooks et al., 2009; Yoder et al., 2014), are not implemented, despite several studies corroborating their importance (Aiken et al., 2011; Latter et al., 2009). The explanation for this behavior seems to be supported by the Institutional Theory (Lewin & Volberda, 1999).

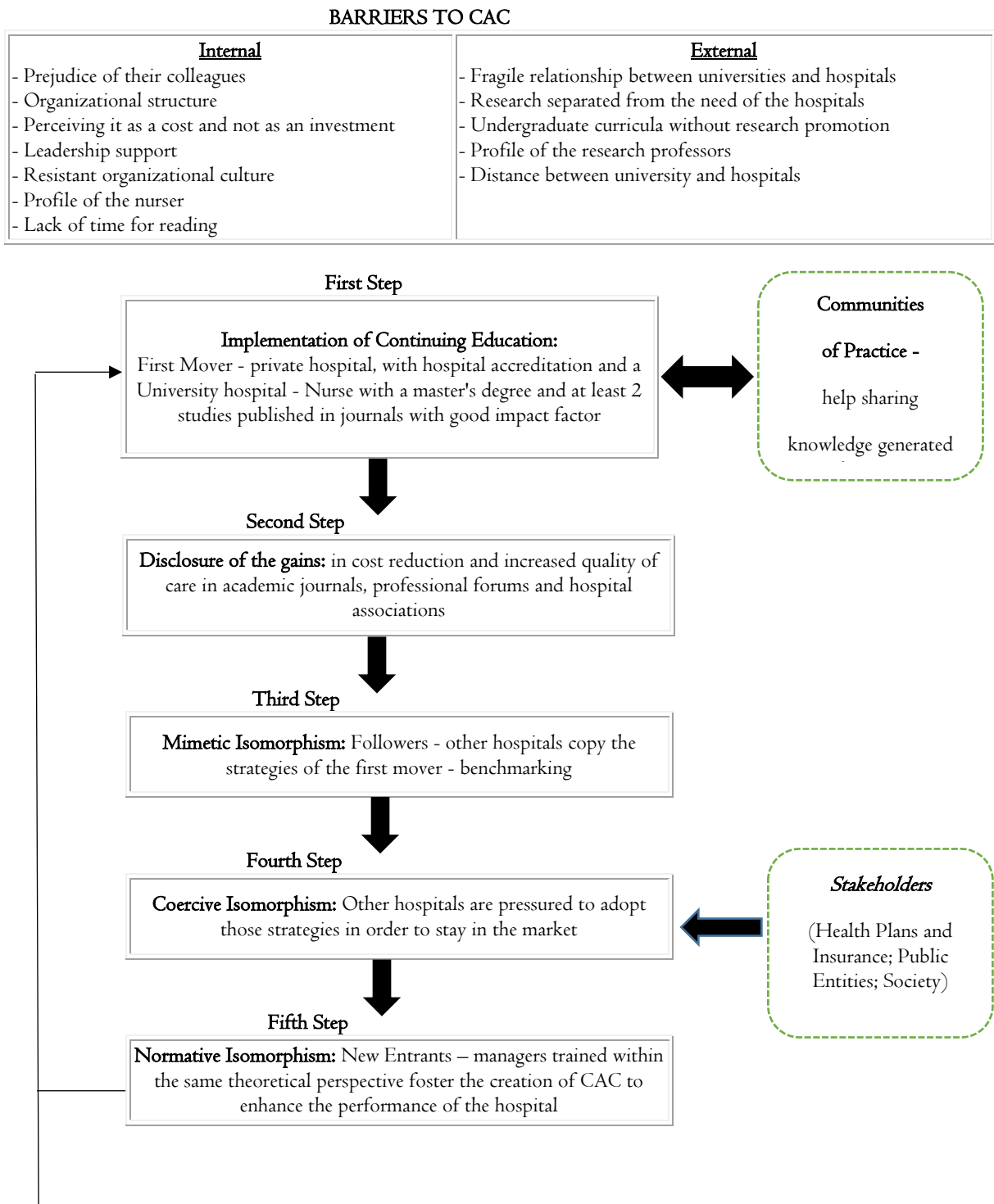
Given the similarity in the behavior of most hospitals, including the resistance to support the creation of CAC for nurses (Weir & Ozga, 2010), the strategy for its implementation may find support in the Institutional Theory. When adopted by a private hospital with accreditation, it may validate and legitimize its creation in similar organizations, given the tendency of homogenization or isomorphism when in search of survival in the market (DiMaggio & Powell, 1991; Hall & Taylor, 2003).

A private hospital was chosen for this study as a first mover, instead of a public hospital, common in countries such as Brazil, because the former must generate income for its very existence, while the other can be supported by government aid. Specifically, accreditation is necessary, because it implies not only a cultural change, but also the recognition of its excellence by other actors who would adopt it for benchmarking purposes as in the creation of successful practices. Another advantage of a private hospital with accreditation is that it already has established structures for its physicians to do research. This would facilitate its sharing after partnering with nurses interested in developing a CAC (van Oostveen et al., 2017) (Figure 1).

The implementation of continuing education for a CAC for nurses is suggested as a first step. It has a low cost and has already been adopted by several hospitals to train professionals, especially because of the need to level knowledge (Skees, 2010; Weeks et al., 2017). The experience of one of the authors of this study as coordinator of continuing education service, however, leads us to propose that the chief nurse has at least a master's degree and at least 2 articles published in journals with good impact factor. This is because the undergraduate curricula do not always encourage the future nurse to engage in research (van Oostveen et al., 2017), a necessary characteristic for someone who must be constantly updated (Siew & Loh, 2016; Skees, 2010). The requirement of the nurses having published articles follows the academic experience of the authors of this study who realize that not all master's students will become, in fact, researchers.

The creation of communities of practice is proposed as a way to strengthen continuing education, instead of focusing on the academic updating of only one of their members. They will work as a space for discussion and sharing of EBP, besides fostering the learning of other professionals and new possibilities in the professional career of nurses (Berman, Snyder, & Frandsen, 2016). When associating care work with research, nurses tend to share best clinical practices with their colleagues, nursing students and even with their teachers (Weir & Ozga, 2010).

Figure I. Theoretical Framework for CAC.



**Communities of Practice -**  
help sharing  
knowledge generated

**Stakeholders**  
(Health Plans and Insurance; Public Entities; Society)

Source: The authors. CAC, Clinical-Academic Careers; EBP, evidence-based practice.

This context creates so many other communities of practice in the face of the trust built between its members who no longer fear to expose their doubts to someone competent (Wenger, 2010), thus reducing potential errors (Ajri-Khameslou, Abbaszadeh, & Borhani, 2017). It should be noted that the intensity of personal contact becomes relevant for the sharing of knowledge, because mutually sustained relationships enable the rapid flow of information and, consequently, in the use of specific solutions and tools (Wenger, 1998).

The communities of practice create a virtuous circle, once knowledge is expanded as the individual moves to a central position in this network, because of the contacts established in this path. Once it becomes a reflexive space, they foster the sharing of experience from their care activities, thus consolidating trust among the members of the communities and avoiding that the hierarchical level is a barrier to a fruitful discussion and becoming a space of joint learning (Delgado et al., 2020). Another benefit of the communities of practice is to strengthen the interaction between the nurse responsible for continuing education and other colleagues. Thus, the real needs of the various professionals involved are recognized while facilitating the prior planning of education actions and, consequently, increasing their effectiveness (Malekshahi et al., 2019).

The second step proposed in the Theoretical Framework seems to be the simplest, but it is no less important than the previous step. The disclosure of the gains in reducing costs, increasing the care quality, and being more satisfactory for those professionals (Brooks et al., 2009; Yoder et al., 2014) in academic journals, professional forums and hospital associations will encourage other hospitals to adopt continuing education and communities of practice. As a reflex act, the third step consists of mimetic isomorphism. Since hospitals are complex organizations (Abramson et al., 2017) and given the degree of environmental uncertainty, they adopt practices and procedures of organizations that are perceived as reference (DiMaggio & Powell, 1991), thus playing the role of followers.

However, these practices will not necessarily be adopted by all hospitals. Therefore, the theoretical framework proposed includes a fourth step. In this step, coercive isomorphism (DiMaggio & Powell, 1991) emerges when a stronger organization exerts formal and informal pressures on another upon which it is dependent, and this may occur in more subtle and less explicit ways.

In the case of hospitals, the strongest organizations have different formats. They may be Public Entities that, under the law, determine changes or improvements for the benefit of society. These may impact the economy of public resources when paying for the services provided. They may also be health insurance providers. When realizing that they might pay less for the same services provided by others, they pressure their current suppliers to adopt new practices. This pressure may be due both because of the reduction or extinction of hiring these services and because of the creation of financial incentives for them to be adopted in an organization.

Coercion may also arise at the initiative of the society when it has other alternatives of care and prefers the one that best meets its expectations. They all aim to not pay more for a service being provided, whose cost is higher due to internal inefficiencies. Hospitals are then forced to adopt the best strategies, which include removing the barriers to the development and consolidation of the CAC of the nurses.

The fifth stage is necessary, because there is always the possibility of new entrants in the market, leading to a normative isomorphism (DiMaggio & Powell, 1991). The adoption of those strategies will be natural as these enter the market, where the CAC of nurses will already be perceived as an important strategy to increase the quality of care, the cost reduction and, consequently, the performance of the hospital. As their managers tend to work similarly with their peers of competing hospitals, it is expected that they act similarly when facing problems in the sector.

Normative isomorphism also has an additional benefit. In this stage, the tendency is that all hospitals to remain competitive, adopt the CAC for nurses and, by a reflex act, the best EBP. As there will be a market demand, consequently, undergraduate courses will be forced to update their curricula. This will allow new professionals from different backgrounds to realize that there is no dissociation between research and practice (Weir & Ozga, 2010), contributing to studies integrating universities and the reality of hospitals (Logan, Gallimore, & Jordan, 2016) and mitigating the barriers that hinder the development of CAC of nurses (Oude Rengerink et al., 2011; Zwolsman et al., 2012).



## CONCLUSIONS

By proposing the Institutional Theory as the basis of the theoretical framework, it is expected to create the conditions for the CAC of nurses to be developed, enabling the best practices based on evidence and directly affecting the quality and efficiency of the care provided. The various barriers that prevent the successful development of this career can be mitigated by implementing continuing education and communities of practice in a private hospital that already has accreditation and prior structure for the development of research, even if at first, it is more connected to the medical area. It is necessary to change the way nurses are perceived within the organizational structure. This will occur as the positive results of the development of CAC of nurses are known, leading other authors to replicate it.

### Relevance to clinical practice

This study has international relevance, as it can be applied in any country that wants quality gains in the assistance provided by hospitals as well cost reduction. This will be possible if clinical-academic nursing careers are developed, which will enable the use of EBP. This makes it possible to reduce errors and improve decision-making by using the most current knowledge on each subject. We propose a 5-step framework based on Institutional Theory which helps not only to understand why barriers exist, but how to create strategies by using communities of practice and continuing education that will be replicated by other players.

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