THE WORK CONTEXT AND THE INTERVENIENT FACTORS FOR THE CONSUMPTION OF RESEARCH BY CLINICAL NURSES*

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ABSTRACT: Objective: to comprehend, from the perspectives of clinical nurses and nurse researchers, the influences that the work context exerts on the consumption of research by clinical nurses. Methodology: qualitative study which considered the Complexity Theory and Data-Based Theory as the theoretical and methodological references. Participants were 10 clinical nurses and six nurse researchers, linked to public institutions of the city of Rio de Janeiro. Data were collected through a semi-structured interview between October 2014 and March 2015. Results: dimensions of the organizational culture and nursing management emerged as influential aspects for the consumption of research by the clinical nurse. These were: leadership, human and physical resources, flexibility and incentive to seek skills from the research. Conclusion: in the care dimension, the consumption of research is influenced by multifaceted factors, related to the valorization of the human capital that suffers and exerts an influence on the organizational dynamics from the updated scientific knowledge.

DESCRIPTORS: Nursing; Knowledge management; Research; Institutional organization; Organizational culture.

O CONTEXTO DE TRABALHO E OS FATORES INTERVENIENTES AO CONSUMO DE PESQUISA POR ENFERMEIROS ASSISTENCIAIS

RESUMO: Objetivo: compreender, na perspectiva de enfermeiros assistenciais e pesquisadores, as influências que o contexto de trabalho exerce sobre o consumo de pesquisa por enfermeiros assistenciais. Metodologia: pesquisa qualitativa cujos referenciais teórico e metodológico foram a Teoria da Complexidade e a Teoria Fundamentada nos Dados. Participaram 10 enfermeiros assistenciais e seis enfermeiros pesquisadores, vinculados a instituições públicas da cidade do Rio de Janeiro. Os dados foram captados mediante entrevista semiestruturada, entre outubro de 2014 e março de 2015. Resultados: dimensões da cultura organizacional e do gerenciamento de enfermagem surgiram como aspectos influenciadores do consumo de pesquisa pelo enfermeiro assistencial. Nestes, estão: liderança, recursos humanos, físicos, flexibilidade e incentivo para a busca de competências a partir da pesquisa. Conclusão: na dimensão assistencial, o consumo de pesquisa é influenciado por fatores multifacetados, relacionados com a valorização do capital humano que sofre e exerce influência na dinâmica organizacional a partir do conhecimento científico atualizado.

DESCRITORES: Enfermagem; Gestão do conhecimento; Pesquisa; Organização institucional; Cultura organizacional.

O CONTEXTO DE TRABALHO Y LOS FACTORES INTERVENIENTES EN EL CONSUMO DE INVESTIGACIONES POR ENFERMEROS ASISTENCIALES*

RESULTADOS: en la dimensión asistencial, factores polifacéticos influyen en el consumo de investigaciones por el enfermero asistencial. Estos abarcan: liderazgo, recursos humanos, físicos, flexibilidad e incentivo a la búsqueda de competencias con base en la investigación. Conclusión: en la dimensión asistencial, factores polifacéticos influyen en el consumo de investigativas, relacionados con la valoración del capital humano que sufre e influye en la dinámica organizacional a partir del conocimiento científico actualizado.

DESCRIPTORES: Enfermería; Gestión del conocimiento; Investigación; Organización institucional; Cultura organizacional.

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INTRODUCTION

The organizational culture of work institutions is based on systems of relationships, power and meanings established among people and hierarchical niches that constitute the formal and informal structures of these organizations, including the health and care promotion and maintenance systems, which indicates that nursing is considered an important element of this process (1-2). At this juncture, the value of complex thinking is highlighted by allowing the multidimensionality of the organizational culture of a health institution to be valorized, especially the comprehension of the importance of the interactions established among the people to build a *modus operandi* of the workers capable of sustaining the identity of the institution in which they are included (3). Therefore, it is necessary to consider that the nurses’ work context is not limited to the geographic space or to the isolated institutional philosophy, given that the context is configured as a living system of connections (4-5).

Being a system, it entails dimensions that project singularities in the expression of the entire organization, since it emerges and is maintained from the interactions between the elements that constitute it (6). Thus, the principle of complexity - the hologramatic - is corroborated, in which the part is in the whole and the whole in each part (3). Thus, taking this principle as a baseline element, the organizational dynamics and human capital must be highlighted as poles that complement and influence the nurses’ work process (2,6) and, therefore, the scientific practices that permeate this process. In the meantime, the consumption of research is the foundation for decision-making based on up-to-date scientific knowledge (7-8).

The contextual influences can, therefore, have an impact on the systems of meanings and on the practice of clinical nurses regarding the consumption of scientific research (7). However, these contexts are also influenced by other realities, whether positive or negative, especially from the main production spaces of nursing science: the universities (9). Therefore, nurse researchers inserted in the academic scenario are configured as elements that can influence the consumption of research by clinical nurses, in their work spaces. However, the literature highlights the need for strategies that allow the convergence between the development of research and the care dimension (7-8). This reality supports the following question: how do nurses working in care and in research comprehend the implications of the work context for the consumption of research by clinical nurses?

The relevance imbued with this problem rests on the importance of comprehending the intervenient factors projected by the work context in relation to the consumption of research by the nurses working in care, taking as the elucidative base the perception of those that experiences this reality and can influence it (9). In addition, emerging health and care demands include the need for up-to-date scientific support to better serve them. Therefore, the aim of this study was to comprehend, from the perspectives of clinical nurses and nurse researchers, the influences that the work context exerts on the consumption of research by clinical nurses.

METHODOLOGY

This explanatory, qualitative study used the Complexity Theory (3) and the Data-Based Theory (DBT) as the theoretical and methodological references, respectively. The DBT is a method developed from a set of analytical resources that, systematically conducted, make it possible to generate a theoretical matrix explaining the research phenomenon (10). In this sense, it favors the understanding of the factors that structure, condition and/or influence a phenomenon.

The data presented emerge from two sample groups, namely: clinical nurses and nurse researchers. The inclusion criterion for the group of clinical nurses was: length of professional experience, in the current scenario, equal to or greater than one year; and the exclusion criterion: nurses that were doing a *stricto sensu* post-graduate course, considering the particularities of this study context in relation to the consumption and development of research.

The inclusion criteria for the group of nurse researchers were: to have a PhD, in any area of knowledge; to be linked to a research group registered with the National Council for Scientific and
Technological Development - CNPq, with a line of research that approached the context of the practice of the nurses that composed the first sample group. Researchers whose length of experience in the management of research was less than two years were excluded. Thus, 16 participants were selected, of whom 10 were clinical nurses and six were nurse researchers.

Regarding the study scenarios, it is pertinent to consider that, as a science under construction and a social practice, nursing has different areas of activity, where, for each of them, there may be particularities in the development of research and in the convergence between scientific results and the care dimension. From this understanding, a field of knowledge and intervention that needs to be strengthened in the panorama of nursing research groups in Brazil was sought. This context is adolescence, not as an isolated area of knowledge, but as a natural stage of the life cycle that requires investment in the formation and development of research for better science-based interventions. This assertion is corroborated by the scarcity of nursing research groups in Brazil for this specific area of knowledge and practice compared to the other phases of the life cycle\(^{(11)}\). Thus, the study scenarios were: for the group composed of clinical nurses, a center of studies and care for adolescent health of a university hospital, in the capital of Rio de Janeiro. The activities developed in this center cover healthcare at the levels of primary, secondary and tertiary care, established by the Brazilian Nation Health System (Sistema Único de Saúde - SUS). For the nurse researchers, the scenario was research groups registered in the National Council for Scientific and Technological Development (CNPq), linked to universities located in Rio de Janeiro.

The selection of participants was guided by the theoretical, non-probabilistic sampling of DBT, which consists of maximizing comparative opportunities of facts or incidents to determine how a category varies in terms of its properties and dimensions\(^{(10)}\). The data collection was finalized when theoretical saturation was reached, namely: when the categories presented explanatory density capable of contemplating the object of the study. The recruitment of the clinical nurses was by convenience, with the snowball technique being used. In order to recruit the nurse researchers, a parametric search was carried out in the Lattes Platform, in the field of the CNPq Research Groups Directory, using the refinement strategies described in the following figure:

**Figure 1** - Parameterized search for the captation of the research groups. Rio de Janeiro, RJ, Brazil, 2017

<table>
<thead>
<tr>
<th>CAPTATION OF GROUPS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Search term: “Adolescent”, “Adolescents”, “Adolescence”;</td>
</tr>
<tr>
<td>• Search option: “any word”.</td>
</tr>
</tbody>
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<table>
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<tr>
<th>OTHER SEARCH FILTERS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Search option: “Name of group”;</td>
</tr>
<tr>
<td>• Situation of the group: “Certified”;</td>
</tr>
<tr>
<td>• Region: “Southeast”; UF: “Rio de Janeiro”;</td>
</tr>
<tr>
<td>• Knowledge area: Large area - “Health Sciences”; Area - “Nursing”.</td>
</tr>
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After selecting the research groups, each researcher was invited to participate in the study, by electronic correspondence, through the e-mail registered in the Lattes Curriculum. The semi-structured interview was used as the data collection technique, carried out individually, from October 2014 to May 2015, and digitally recorded. The interview was initiated with the following guiding question: “Tell me about how you perceive the influence of the work context on the consumption of research of the nurse that works in care”. The interviews were performed at the sites previously described, in reserved rooms. For the group of nurse researchers, the collection site was the teaching institution to which the research group was linked.

Data analysis was performed by coding, which in the DBT consists of a comparative analysis at three levels: open, axial and selective\(^{(10)}\). In the open coding, the concepts were identified by comparisons between properties and dimensions of the data. At this stage, the preliminary codes emerged from the
titles assigned for each incident, idea or event. The preliminary codes were grouped into conceptual codes\(^{10}\). In the axial codification, the conceptual codes were grouped to form the categories and subcategories\(^{10}\). At this stage, the process of regrouping of the data that was separated in the open coding was started, aiming for a thorough explanation of the phenomenon. The selective coding consisted of the comparison and analysis of the categories and subcategories, a continuous process that aims to develop the categories and to integrate and refine the theoretical matrix, making the central phenomenon emerge\(^{10}\). The categories were ordered according to the paradigmatic model\(^{10}\), a schema that enables explanatory coherence between the dimensions that support the study object. Its structure comes from the components: phenomenon, causal conditions, intervening conditions, context, strategies of action/interaction and consequences.

The study was approved in the second semester of 2014 by the Research Ethics Committees (CEP) of the Anna Nery School of Nursing of the Federal University of Rio de Janeiro, with authorization no. 30438114000005238 and by the Pedro Ernesto University Hospital of the State University of Rio de Janeiro, with authorization no. 30438114030015259. Participation was voluntary, after clarification and signing of the consent form. To maintain the anonymity of the participants, the excerpts presented throughout the article were designated by acronyms, according to the sample group and followed by the sequence of their respective interview. Thus, the 1\(^{st}\) group (CN\(^{0}\): Clinical nurse) and the 2\(^{nd}\) group (NR\(^{2}\): Nurse Researcher).

\textbf{RESULTS}

The results were derived from the doctoral thesis “Management of Scientific Knowledge: connections between research and nursing care management in the context of adolescence”. However, as a consequence of theoretical density, this article addresses the category “Implications of the work context for the consumption of research by clinical nurses”, which, using the paradigmatic model, is an intervening condition for the connections between research and care. From this perspective, the first subcategory is presented.

Implications of the work context that favor or not the consumption of research by the clinical nurse.

The work context presents particularities for the incentive for the consumption of research, however, it is necessary to emphasize the contextual nature of where the experiences of the clinical nurses participating in this study emerge, which is a public university hospital, as portrayed in the following statements.

\textit{Here is an institution where the professionals pursue knowledge, when we have some doubt we search in the manuals of the Ministry of Health, for example. (CN1)}

\[...\text{because we have very close contact with an educational institution, I notice that there is a change, where there is an approximation (research and clinical practice), this exchange of information is taking place. (CN6)}\]

Despite that mentioned above, aspects such as human resources and work overload were indicated as elements that influence the practice of the consumption of research by clinical nurses. These intervening factors were evidenced by the study participants from their experiences in other work contexts.

\textit{When you try to put it into practice, you lack resources as well. I think there is a lot involved, human, material resources \[...\] in another institution I am the nurse for 65 patients, that is, I cannot even do the nursing process. (CN3)}

\textit{In another reality that we know, you see the overloaded professional \[...\] As a professional, he finds himself discouraged by physical and mental fatigue. (CN5)}
The nurse researchers recognized the intervenient managerial elements in the practice of the consumption of research presented by the clinical nurses. Thus, they reinforce the understanding of the limiting implications of the working conditions for the connection between access to research results and nursing care.

[...] the main difficulty is for the clinical nurse to be able to participate in research groups, due to the work demands [...] sometimes they have more than one job. (NR1)

What is more worrying is that sometimes this nurse comes to do her study with us and wants to immediately incorporate the results into the service and she realizes that this is not immediately possible, due to the infrastructure, the team itself which has to be trained. (NR2)

In addition to the physical and human resources, the managerial dimension of the health service and the nursing management were highlighted as elements that influence the practice of consumption of research by the clinical nurse. From this juncture, the next subcategory emerged.

**Managerial dynamics and their implications for the consumption of research in nursing care.**

This reality demonstrates the influence of the management/manager on the (de)motivation of the clinical nurse for the consumption of research.

The management can encourage, motivating this professional in the search for knowledge. (CN5)

In the care dimension, if the manager does not support you, you will suffer in your work process without being able to change [...] sometimes, the person has the knowledge but does not have the power conferred by their position in the institution to change anything. (NR6)

As a complex phenomenon, it is desirable that the management recognize the motivation for the consumption of research by the clinical nurse in its multifaceted dynamics. From this perspective, flexibility in the work process, time management and financial incentives appear as strategic possibilities to connect research results and nursing care, based on the consumption of updated scientific knowledge.

[...] there should be a greater incentive for the nurse to study, not only financial incentives, but, possibly, an incentive in the work, a release for research, which is the reality here, but in other places this doesn’t happen. (CN3)

[...] The professional knows that he will not use his time off, his rest time to do scientific research, which, in a way, I think is correct, because if he is seeking scientific knowledge to use in the care, why not use the working time? (CN5)

[...] there is the issue of valorization, which is not just financial, but the financial factor is important when, for example, you have the work and career plan in the institution, this is a point of valorization. (NR5)

The gap between scientific research and nursing care, still in the management field, is strengthened by the leadership model, as well as by the intervention strategies used for the convergence of these dimensions. Thus, autocratic leadership and the linear education model are presented as factors that are counterproductive for the connections necessary for the consumption of research by the clinical nurse.

[...] she [supervisor] came with this enthusiasm, but without the preparation for the transition of the team, she arrived imposing [...] but you cannot be an autocrat! It’s no use wanting to impose. You have to start by showing your work first [...] to make people understand why these changes will be important [...] It’s like the teaching model we have. In practice it is the same thing, where he comes saying: I am the teacher, I have the knowledge and you have to learn. (CN6)

The important thing is to show by example. If you just want to dictate how it should be done, no one will support you. You have to know how to talk, you have to be a real leader. (CN9)

For the participants, the convergence between the nursing management and the consumption of research by nurses results in positive impacts for the organizational dynamics of the institution and for the work process.
 [...] this nurse manager has to value the nurse who seeks scientific knowledge and then outline a strategy to help, because this nurse will work differently. (CN5)

I presented a doctoral thesis on the discharge process of the child with special health needs [...] If discharge is an administrative action, it has to be an interdisciplinary action, then it transforms into the coordinator of the discharge process [...] and is developing the coordination of the discharge process in an interdisciplinary action. (NR4)

Management dynamics, therefore, correspond to implications that are manifested in the institutional power order, permeating elements such as leadership, organizational culture and, above all, the ability of the management to understand the consumption of research by clinical nurses as a possibility for the development of qualified human capital for meeting the emerging health demands.

● DISCUSSION

The organizational philosophy of a university hospital presents factors that can influence the work dynamics of the nurses and which, in turn, are not generalizable to other work scenarios, highlighting the scientific demands, given the potential approximation with practices of teaching and research; in addition to the supposed relationship of employment stability and professional incentive possibilities, through the work and career plan(12).

On the other hand, the practice of consumption of research by the clinical nurse is influenced by the working conditions that constitute intervenient factors that are not specific to the context of a university hospital, where they are highlighted by the literature as transversal situations for several scenarios in which the nurse is inserted; with an emphasis on the time variable and the work overload generated by insufficient human and material resources; infrastructure and working hours(13-15). Thus, the connections between research and the nursing work process, in the healthcare context, face procedural limitations in the work context, which, in a certain way, contribute to a reality that distances possibilities for autonomous and valued nursing, through the scientific empowerment necessary for the effectiveness of its work process(12,16). In this reality, the challenges permeate the difficulty of access to research results, due to the lack of material resources/infrastructure, for the possibilities of the implementation of this knowledge in the practice. This situation can be explained by complex thinking, considering the principle of the ecology of action, in which any action, insofar as it enters the system of interactions of the scenario in which it occurs, progressively escapes the will of its author(3).

In this way, in addition to risking failure, actions may suffer deviations or distortions from their original meaning.

It is clear from this fact the understanding that the nurse’s intention to consume research may not be enough to affect their actions and decisions in the search for support and reorientation of their work practices, since the effect of the action does not only depend on the intention of its author, but also on the conditions of the context in which it develops, thus embodying the principle of uncertainty(3). In this sense, the data highlighted the management as an element capable of supporting strategies to deal with the uncertainties projected in the ecology of the action, especially with regard to the possible inter-retroactive mechanisms between the nurse’s intention/need to consume research and the use of this knowledge in the work process. For this, the management is highlighted in relation to mechanisms to encourage the development of the institutional human capital, as well as the role of the leadership in this process(2,17).

In addition, adherence to new paradigms or care models for the reorientation of nursing work practices constitutes a phenomenon that presents objective and subjective, individual and collective characteristics which is, however, directly related to the field of contextual influences regarding these workers. These influences can motivate or discourage nurses in the performance of their work(18).

By taking the leadership in the ability to influence people and stimulating them to develop a common goal(2,19), research data highlights the fact that, within the sphere of management, the context may circumvent potential adverse situations for the consumption of research by clinical nurses, considering their development and, consequently, the quality of their care. In order for these possibilities to be
translated into realities, it is necessary for the management to valorize the nursing human resources, understanding that it is these resources that structure the driving force for the solidification of changes in the service\(^\text{17}\). This is because, if the challenges that emerge when faced with new demands for health and care converge for the development of professional skills, especially those of nursing, in an era founded on the principles of science, innovation and technology, it is essential to think, propose and implement strategies focused on education. This, therefore, suggests the need for greater flexibility and a broader vision of the knowledge required for training and professional performance\(^\text{20}\).

The context/human capital relationship therefore establishes an entwining that makes it impossible to think about the connections between the consumption of research and the work process of clinical nurses in a dissociated way; in fact, the sense of inertia can be resumed, in which the consumption of research is only meaningful while it can be translated into reality. Thus, it will become possible to move forward in the face of the challenges of the current conjuncture of the health systems in the midst of the demands of the society for knowledge\(^\text{21}\).

**CONCLUSION**

Regarding the organizational dynamics of the health service, the results indicated the contextual specificity from which the clinical nurses express themselves to be a factor that influences the approximation of these workers with scientific research. However, the data reveal a potential transversality in relation to the intervenent factors for the practice of the consumption of research in the care sphere, since these nurses reported that they had witnessed similar situations in other nursing practice contexts.

One of the main intervenent factors in the consumption of research by clinical nurses, from the perception of the participants, is the management and its opening up in relation to the development of human capital. This process includes institutional mechanisms that allow workers flexibility to improve their research skills, such as incentives to participate in events and/or training, work and career plans and the leadership process itself, aiming for the capacity to motivate the professional to consume up-to-date science. However, physical and human resources also exert an influence on this process, for example, when it is impossible or difficult to gain remote access to information from current studies, or even to implement the practices from their consumption.

The data did not reveal specificity in relation to the context of knowledge and practice of adolescence. Given this, the possibility of transversality of this problem was indicated, in addition to being an isolated area, as highlighted throughout the article. However, because it is a multifaceted phenomenon, it is recommended that similar studies be developed in different practice scenarios, as well as with diverse participants, including the managers of the health and nursing services. It should be noted that the absence of data from these actors implies a potential limitation for the present study.

**REFERENCES**


