

# Permanent education: perception of nursing in the light of complex thought

Educação permanente: percepção da enfermagem à luz do pensamento da complexidade  
Educación permanente: percepción de la enfermería de acuerdo con el pensamiento complejo

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## Abstract

**Objective:** To understand how the nursing team perceives and experiences Permanent Education in Health in a hospital environment, in the light of complex thought.

**Methods:** Qualitative study based on complex thought as theoretical framework and in Grounded Theory as methodological framework. Nurses and Nursing Technicians from a teaching hospital in the central region of Rio Grande do Sul participated in the study and were organized into three sample groups. Data were collected from August/2018 to September/2019, through individual interviews.

**Results:** A prospective movement of personal and collective search and an intense process of (re)construction of knowledge and professional practices were identified. In this dynamic, both the intervention approaches and the internal and external environmental conditions were of fundamental importance for understanding and (re)signifying learning as an endless educational process.

**Conclusion:** Permanent Education in Health for the nursing team goes far beyond a policy or schedule of periodic activities. Therefore, each service/institution should consider the uniqueness and multidimensionality of its actors to make them protagonists in the process of (re)signification of continuous and permanent learning.

## Resumo

**Objetivo:** Compreender como a equipe de enfermagem percebe e vivencia a Educação Permanente em Saúde em um ambiente hospitalar, à luz do pensamento da complexidade.

**Métodos:** Estudo qualitativo ancorado no pensamento da complexidade como referencial teórico e na Teoria Fundamentada nos Dados como referencial metodológico. Participaram do estudo Enfermeiros e Técnicos de Enfermagem de um hospital de ensino da região central do Rio Grande do Sul, organizados em três grupos amostrais. Os dados foram coletados entre agosto/2018 e setembro/2019, por meio de entrevistas individuais.

**Resultados:** Identificou-se um movimento prospectivo de busca pessoal e coletiva, além de um intenso processo de (re)construção de saberes e práticas profissionais. Nessa dinâmica, tanto as abordagens de intervenção quanto as condições do ambiente interno e externo foram de fundamental importância para a compreensão e a (re)significação da aprendizagem como processo educativo interminável.

**Conclusão:** A compreensão de Educação Permanente em Saúde para a equipe de enfermagem vai muito além de uma política ou cronograma de atividades periódicas. Sugere-se, para tanto, que cada serviço/instituição considere a singularidade e a multidimensionalidade de seus atores, a fim de torná-los protagonistas no processo de (re)significação da aprendizagem contínua e permanente.

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## Resumen

**Objetivo:** Comprender de qué forma el equipo de enfermería percibe y vive la educación permanente en salud en un ambiente hospitalario, de acuerdo con el pensamiento complejo.

**Métodos:** Estudio cualitativo, basado en el pensamiento complejo como marco referencial teórico y en la Teoría Fundamentada en los Datos como marco referencial metodológico. Participaron del estudio enfermeros y técnicos de enfermería de un hospital universitario de la región central de Rio Grande do Sul, organizados en tres grupos de muestra. Los datos fueron recopilados entre agosto/2018 y septiembre/2019, por medio de encuestas individuales.

**Resultados:** Se identificó un movimiento prospectivo de búsqueda personal y colectiva, además de un intenso proceso de (re)construcción de saberes y prácticas profesionales. En esta dinámica, tanto los enfoques de intervención como las condiciones del ambiente interno y externo fueron de fundamental importancia para la comprensión y la (re)significación del aprendizaje como proceso educativo interminable.

**Conclusión:** La comprensión de educación permanente en salud para el equipo de enfermería va mucho más allá de una política o un cronograma de actividades periódicas. Para eso, se sugiere que cada servicio/institución considere la singularidad y la multidimensionalidad de sus actores para hacerlos protagonistas en el proceso de (re)significación del aprendizaje continuo y permanente.

## Introduction

In the context of Brazil, Permanent Education in Health is a policy that aims to direct the training and qualification of professionals, with a view to overcoming singular and repeated professional practices. Unlike continuing education in health, Permanent Education has been legitimized as a device for qualified and shared dialogue with different healthcare actors, based on interactive and systemic approaches.<sup>(1-3)</sup>

As a management strategy, Permanent Education in Health aims to integrate knowledge and daily practices through dialogue, reflection and collaborative work, in favor of improving the quality of health care and management. As an ethical, political and pedagogical proposal, Permanent Education aims to (re)signify the training processes and health education practices and encourage the systematic organization of health services.<sup>(4-6)</sup>

In international contexts, Permanent Education is translated as lifelong learning,<sup>(7)</sup> suggesting that the training process is interminable and that it is not possible to guarantee the quality of services and processes except through education. In this dynamic, lifelong learning assigns the responsibility to the professional, in a self-educational process. Under this approach, the professional is expected to be able to learn endlessly, with learning and teaching as part of their evolution in training and work.<sup>(8,9)</sup>

In this theoretical and practical approach, complex thought represents a prospective framework and inducer of lifelong learning processes. For Edgar Morin, one of the first thinkers to argue in favor of a reform of thought and education, it is

necessary to transcend the logic of education as instruction and isolated and linear teaching. For this author, education can be expanded to apprehend the notions of multiplicity and diversity and understand uncertainty and contradictions as part of life and of the human condition.<sup>(10,11)</sup>

Understood as endless or lifelong learning, Permanent Education in Health can only be comprehended and sustained in the light of complex thought. In the context, complexus refers to what was woven together by inseparable distinct elements that form the complex unit of education.<sup>(10,11)</sup> Under this approach, knowledge and professional experiences in health must be continuously constructed and (re)signified with dialogue and respect for the autonomy of each professional as the protagonist of the self-education process.

Thus, in an attempt to conceive education as a lifelong process constructed in the dynamic integration between theory and practice and in the apprehension of each actor/professional as a protagonist in the path of (re)signification of continuous and permanent learning, the present study aims to understand how the nursing team perceives and experiences Permanent Education in Health in a hospital environment, in the light of complex thought.

## Method

This is a qualitative study using complex thought as theoretical framework and the Grounded Theory<sup>(12)</sup> as methodological framework. The study is part of the University outreach project “Learning Incubator”, approved by the Research Ethics

Committee under CAAE 11520312.3.0000.5306. The research process was conducted based on the Consolidated Criteria for Reporting Qualitative Research (COREQ).<sup>(13)</sup>

The participants were the Nurses and Nursing Technicians of a teaching hospital in the central region of Rio Grande do Sul, who were organized into three sample groups. Data was collected from August/2018 to September/2019, through individual interviews, conducted by two experienced researchers who are part of the university outreach project “Learning Incubator”. The interviews had an average duration of 40 minutes and were recorded in digital format and later transcribed for simultaneous and comparative data analysis.

The inclusion criteria for the sample groups were Nurses and Nursing Technicians who had participated in activities of Permanent Education in Health mediated by the Learning Incubator. Professionals with less than one year of experience in the institution, those who had not actively participated in the outreach project and those on work leave for any reason were excluded from the sample groups.

The University Outreach Project “Learning Incubator” was incorporated in this teaching hospital in 2012, with the objective of improving the reception of new employees and promoting Permanent Education in Health as a continuing educational process. In this environment, the Learning Incubator represents a teaching and learning technology that can enhance talents, promote critical and reflective thinking and encourage proactive actions in the daily lives of nursing professionals.<sup>(14)</sup>

The first sample group was composed of nurses who had participated in the monthly activities of the Learning Incubator. Participants were invited individually by e-mail. In the first meeting, the proposal of the study was explained, and the participants were asked to sign the Informed Consent Form. The interview of the first sample group was directed by the guiding question: “How do you perceive and experience Permanent Education in Health in your daily practice?”. After this question, new questions and hypotheses emerged and directed the investigation to a second sample group.

The process of data collection, analysis and categorization was conducted according to the method proposed.<sup>(15)</sup> After the first interviews and an inductive, deductive and comparative process of data analysis, the hypothesis built was that meaningful and permanent learning is associated with the intervention approaches and the dynamics used to raise awareness among professionals. The analysis of the data from the first sample group generated a new question directed to Nursing Technicians. The question that guided this group’s interview was: What aspect do you consider the most significant in the process of Permanent Education in Health? The comparative analysis of the data from this group led to the hypothesis: Nursing Technicians value the process of Permanent Education in Health when the intervention approaches go beyond the content and enable shared experiences. To validate this hypothesis, a third sample group with nurses who were in strategic roles in the same institution was conducted, based on the question: How do you perceive and evaluate the participation of nursing professionals in the process of Permanent Education in Health?

The theoretical sample guided data collection and the theoretical saturation determined the number of participants in each group. In total, 18 professionals from the nursing team were interviewed individually. The interviews were conducted in the workplace according to the availability of the participants. The sample groups are shown in Chart 1.

**Chart 1.** Presentation of the members of the sample groups of the study

Sample group	Participants
Group 1	Seven direct care nurses from different inpatient units. All are female, between 26 and 42 years old, with more than two years of professional experience at the institution and with active participation in activities mediated by the Learning Incubator.
Group 2	Eight Nursing Technicians. Of these, six are female, between 26 and 36 years old, with more than a year of experience at the institution, from different sectors of the hospital and with previous participation in regular activities at the Learning Incubator.
Group 3	Three female nurses, aged between 35 and 45 years, with more than three years of experience in the institution and who are in strategic roles in the nursing team. A Nurse that is the general manager of the nursing team; a Nurse responsible for the Hospital Infection Control Commission and a Nurse responsible for the Maternity Hospital.

Comparative data analysis was conducted based on open coding, axial coding and data integration,

as proposed by the method. In open coding, data were analyzed aiming to identify incidents, generate codes and group the data for the delimitation of concepts. In axial coding, the data were regrouped for the comprehensive delimitation of the phenomenon and the categories were associated with the subcategories, in a systematic and comparative process, using the paradigmatic model with the components Condition, Action/interaction and Consequence.<sup>(15)</sup> In the last phase, the categories and subcategories were compared, analyzed and refined aiming to integrate them and characterize the phenomenon.

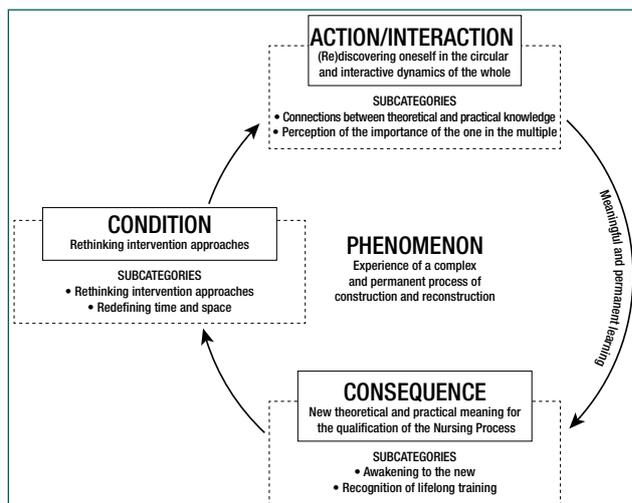
During the construction of the theory, memos and diagrams were elaborated based on the researchers' records and understandings.<sup>(15)</sup> The software NVIVO® was used for the organization and coding of data.

Participants were identified with the letter "N" Nurse; "NT" Nursing Technician and "LN" Lead Nurse, followed by the number corresponding to the order of the interviews, such as N1, N2... N7; NT1, NT2... NT8; LN1... LN3.

## Results

The analysis of data led to the integration of three categories, which converged in the delimitation of the phenomenon: Experience of a complex and permanent process of construction and reconstruction. Following the paradigmatic model, the categories were named according to the three paradigmatic components: Rethinking intervention approaches; (Re)discovering oneself in the circular and interactive dynamics of the whole; New theoretical and practical meaning for the qualification of the Nursing Process, as shown in Figure 1. The analysis of data led to the integration of three categories, which converged in the delimitation of the phenomenon: Experience of a complex and permanent process of construction and reconstruction. Following the paradigmatic model, the categories were named according to the three paradigmatic components: Rethinking intervention approaches; (Re)discovering oneself in the circular and interactive dynamics

of the whole; New theoretical and practical meaning for the qualification of the Nursing Process, as shown in figure 1.



**Figure 1.** Phenomenon: Experience of a complex and permanent process of construction and reconstruction

The category "Rethinking intervention approaches" (paradigmatic condition) is supported by two subcategories that represent a dynamic and unique process of perceiving and inserting oneself in permanent education. In the first subcategory "Reflection on the work process", the participants demonstrated that the interventions mediated by the Learning Incubator contributed to self-reflection and self-assessment of the work process. They reported that, most of the time, the work is repetitive and mechanical and that they usually do not reflect a lot about their professional attitudes and behavior:

*The activities carried out in the Learning Incubator led me to think and reflect on my actions and my practice. In daily life, everything is very automatic and if we don't think about what we're doing, the risk of making a mistake is very high. (NT1)*

*The contribution of Nursing teachers and trainees contributed to new dynamics. I notice that nursing technicians accept the methods used very easily because they are different. They are creative and can attract the attention of technicians, perhaps*

*because they are from other places and speak in a different language. (N2)*

The second subcategory “Redefining time and space” revealed that professionals take part in activities of permanent education at different moments/times. For professionals who had not yet participated in the process, regular activities were often seen as a “waste of time”, as they did not understand the unique and procedural dynamics of the Permanent Education in Health approach, as expressed by one of the participants:

*We have many challenges ahead of us. We need to demystify the idea of ‘wasting time’ and the notion that the professional with a degree is all set. Some technicians just see permanent education activities as a waste of time and do not engage, maybe because they do not understand their meaning. (N5)*

The category “(Re)discovering oneself in the circular and interactive dynamics of the whole” (Action/interaction) is divided in two subcategories that demonstrate a prospective and collaborative movement of dynamic and interactive engagement of professionals. The subcategory “Connections between theoretical and practical knowledge” demonstrated personal and collective efforts in the search for new knowledge, as well as a concern with how to apply this knowledge in daily practice, that is, how to use it as feedback and (re)organizer of the work process.

*Nursing is getting more and more engaged. I feel that there is a greater interconnection between theoretical and practical knowledge. Permanent education stimulated interaction, union, curiosity and the desire to always learn more and to know how to connect all this knowledge in practice. (NT4)*

*I notice an increasing awareness in the nursing team. Everyone gets involved, discusses theoretical issues and can insert them into their practice. (LN2)*

The subcategory “Perception of the importance of the one in the multiple” revealed the concern and

commitment of professionals in the search for the qualification of nursing care. Participants perceived that the engagement of each professional, as part of the group, is essential for a dynamic Nursing process and concluded that teamwork is the only way to produce satisfactory and wide-ranging results.

*Nursing care is complex. Everyone needs to be involved and committed and take care of themselves in order to take good care of the other. Everyone needs to take up this cause and be attentive to teamwork as a whole. Teamwork needs to be fully working to produce quality results. (NT6)*

The category “New theoretical and practical meaning for the qualification of the Nursing Process” represents a paradigmatic consequence. It is complemented by two subcategories that indicate that a problem-solving and dynamic nursing care results from daily personal and collective involvement. The subcategory “Awakening to the new” showed that opening up to new and different perspectives leads professionals to creative and transformational practices. It is, therefore, an action that must be carried out individually and collectively, based on the idea of lifelong learning.

*Nowadays I realize that the process of permanent education, when inserted into the work context, can bring up new and better ways of dealing with different situations. It makes us think about how to do things differently and how to improve our care every day. (NT8)*

*I see that there is an effort on the part of the professionals. They are understanding that they must engage in this process in a personal level and that the activities offered in the Learning Incubator are not enough. This must be a conscious search of each professional. (N7)*

The subcategory “Recognition of lifelong training” revealed that professionals broadened their perception of the Permanent Health Education process and no longer see it only as training stages, content or learning modules. In this direction, it was noted

that Nursing care requires new dynamics, re(creat-ed) everyday, as it must consider each person as a unique and singular being, as expressed in:

*Every day we come across new things, new protocols. Patients are not the same and care must always be new. Learning must be continuous, permanent. There is always something to learn and to teach. We can contribute with new suggestions and always evolve. (NT11)*

*Learning is always meaningful, and teaching must cause cognitive imbalance in the learner, so that cognitive restructuring can occur in rebalance. In the Learning Incubator, everyone learns. There is no definitive theory. (LN3)*

In this path, it was possible to observe a prospective movement of personal and collective search and an intense process of (re)construction of knowledge and professional practices. In this dynamic, the intervention approaches and the internal and external environmental conditions were of fundamental importance for understanding and (re)signifying learning as a perpetual educational process.

## Discussion

The findings of this study revealed that Permanent Education in Health mediated by the Learning Incubator and/or other interactive tools can synergize talents and create renewing movements in personal and collective contexts. In addition, it was also shown that intervention approaches should enable self-reflection and self-assessment, so that all actors/professionals can perceive themselves as protagonists in the path of (re)signification of lifelong learning.

Hospital institutions are complex systems, with an infinity of professionals, users, processes, technologies, supplies and flows. Therefore, only equally complex references<sup>(11)</sup> can enable discussions that broaden perspectives, give rise to new connections and encourage reflection on professional practice as lifelong learning.

Throughout history, educational programs have often focused on training professionals to meet the demands of society and, very rarely, on training autonomous human beings who are protagonists of their history.<sup>(12)</sup> In other words, the traditional training process has contributed little to the formation of citizens that can deal with the evolutionary dynamics of life itself.

In the complex thinking approach, meaningful knowledge involves systemic interactions and associations. This thinking is relevant in its own context and in the whole set of its relational and organizational connections. Therefore, complex knowledge does not mean complicated knowledge; it refers to what is woven together by different actors, as demonstrated in this study by the dialogue with Nursing teachers and trainees, who understood learning in the interaction with service professionals. Therefore, it is an idea that captures the multi-dimensional phenomena that can not be separated from the whole to signify lifelong learning.<sup>(12,13)</sup>

Each human being, as a complex unit<sup>(16)</sup> is flowing and becoming throughout life. Their autonomy is affirmed and strengthened in the creative, interactive and dynamic relationship with their peers and in the whole, as shown in the findings of this study. However, how can this perception be translated into the reality of work and of life, where all the parts move continuously towards the whole and the whole towards the parts? What skills and competences does the Nursing professional need to develop beyond training schools, so that this thinking is translated into everyday practice? How to (re) signify Permanent Education in Health as a lifetime formation path?

These and other questions can only be understood in the light of complex thought, given that life itself is a complex and permanent process of construction and reconstruction. It is necessary to recognize that rational thinking, marked by simplification, disjunction and abstraction of subject and object, creates the idea of finitude, progress and absolute certainties. Under this approach, the training process that was instituted is focused on memorization, linear rituals and a mistaken perception of transmission and reproduction of knowledge. Paradoxically, formation

paths characteristic of humanity, such as emotion and its subjectivities, were not included.<sup>(16-18)</sup>

It is therefore necessary to awaken to the need to learn how to learn and to (re)construct one's own knowledge in the light of new significant connections that can lead to a linear and terminable formation balance. It is already known that continuous professional development is the basis for lifelong learning among nursing professionals; however, a study shows that little is known about how these professionals perceive and experience this process in their daily practice.<sup>(19)</sup>

As demonstrated by the members of this study, the involvement and autonomy of each member of the team is essential. However, the participants also recognize the importance of internal and external stimuli, such as the policy of Permanent Education in Health and other government initiatives. Corroborating the above, a study showed that the attitudes and motivations of nursing professionals depend on a stimulating and nurturing environment, capable of affecting the organizational culture.<sup>(20)</sup>

Therefore, understanding lifelong learning requires a paradigm shift in the teaching and learning process.<sup>(21)</sup> In this logic, the factors that should guide educational action are reflexivity and (self) responsibility in the individual and collective formation path. In other words, Permanent Education in Health should be increasingly dynamic, evolving and endless, which in this study was enabled by the Learning Incubator.

In the perspective of complex thought, all knowledge, needs to be relevant and have meaning for those involved. Under this approach, teaching and learning acquire meaning when the information is inserted in the context, that is, in the dynamics of daily work.<sup>(12)</sup> Therefore, the promotion of Permanent Health Education based on endless thinking and learning requires renewed approaches and methodologies, as well as interactive technologies capable of (re)constructing knowledge instead of reproducing sterile information detached from practice.

The limitations of this study are associated with the limited number of participants, the non-inclusion of professionals with less than one year of experience in the institution and, above all, the inclusion of only one professional category. Further

studies should also include of professionals from other areas of knowledge.

## Conclusion

Permanent Education in Health for the nursing team goes far beyond a policy or schedule of periodic activities. Each service/institution should consider the uniqueness and multidimensionality of its actors to make them protagonists in the process of (re)signification of continuous and permanent learning. The notion of meaningful and permanent learning in Nursing is associated with the meaning that each professional attributes to their daily being and doing. Under this premise, the human being is in permanent (re)construction and learning is a dynamic and endless process that takes place throughout life.

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## Collaborations

Backes DS, Bär K and Costenaro RGS, collaborated with the project design, data collection, analysis and interpretation, article writing, relevant critical review of the intellectual content and final approval of the version to be published. Backes MTS, Souza FGM and Büscher A, collaborated with the writing of the article, relevant critical review of the intellectual content and final approval of the version to be published.

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