



## Complexity theory in the daily experience of the nurse manager\*

*A teoria da complexidade no cotidiano da chefia de enfermagem*

*La teoría de la complejidad en el cotidiano de la jefatura de enfermería*

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### ABSTRACT

**Objective:** To reveal the perceptions that members of the nursing staff of the Pediatric Intensive Care Unit (PICU) have about the leadership of the nurse manager of the unit, using the approach of the paradigm of complexity. **Methods:** A qualitative study. Data collection occurred in a university hospital with a group of 11 professional nurses, in six meetings with focus groups, held in 2001.

**Results:** After the content analysis, categories emerged that link the tangle of relationships and interconnections in multiple dimensions.

**Conclusion:** The nursing staff, and especially the nurse managers, need to recognize the complexity of the nursing role due to uncertainty, instability, insecurity, lack of logic, contradiction, ambiguity, change, randomness, and indetermination, which fights against order, objectivity, and certainty - in particular when multiple events discourage nurses and cause them to avoid the nurse manager.

**Keywords:** Pediatric nursing; Intensive care units; Nursing, team; Nursing, supervisory

### RESUMO

**Objetivo:** Revelar as percepções que os membros da equipe de enfermagem da Unidade de Tratamento Intensivo Pediátrica (UTIP), tem sobre o exercício da chefia da unidade, sob o enfoque do paradigma da complexidade. **Métodos:** Estudo de abordagem qualitativa. A coleta dos dados ocorreu em um hospital universitário, com um grupo de 11 profissionais da equipe de enfermagem, em seis encontros com entrevistas coletivas no ano de 2001. **Resultados:** Após a análise de conteúdo, emergiram categorias que apontam o emaranhado de relações e interconexões, em dimensões múltiplas. **Conclusão:** Os trabalhadores da enfermagem, e, sobretudo, os enfermeiros chefes, necessitam reconhecer a complexidade do cargo em seus aspectos incertos, instáveis, inseguros, ilógicos, contraditórios, ambíguos, variáveis, aleatórios, indeterminados, que fogem da ordem, objetividade, certeza, do determinado, sendo múltiplos os eventos que desencorajam e fazem os enfermeiros esquivar-se do cargo de chefe da UTIP.

**Descritores:** Enfermagem pediátrica; Unidades de terapia intensiva; Equipe de enfermagem; Supervisão de enfermagem

### RESUMEN

**Objetivo:** Revelar las percepciones que los miembros del equipo de enfermería de la Unidad de Terapia Intensiva Pediátrica (UTIP), tienen respecto al ejercicio de la jefatura de la unidad, bajo el enfoque del paradigma de la complejidad. **Métodos:** Se trata de un estudio con abordaje cualitativo. La recolección de los datos se llevó a cabo en el 2001 en un hospital universitario, con un grupo de 11 profesionales del equipo de enfermería, en seis encuentros con entrevistas colectivas. **Resultados:** Después del análisis de contenido, emergieron categorías que señalan el enredo de relaciones e interconexiones, en múltiples dimensiones. **Conclusión:** Los trabajadores de enfermería, y, sobre todo, los enfermeros jefes, necesitan reconocer la complejidad del cargo en sus aspectos inciertos, inestables, inseguros, ilógicos, contradictorios, ambiguos, variables, aleatorios, indeterminados, que huyen del orden, objetividad, certeza, de lo determinado, siendo múltiples los eventos que desaniman y hacen que los enfermeros evadan el cargo de jefe de la UTIP.

**Descriptor:** Enfermería pediátrica; Unidades de terapia intensiva; Equipo de enfermería; Supervisión de enfermería

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## INTRODUCTION

The term that best defines current times is complexity as: “[...] we cannot isolate independent variables from others, i.e. the cultural, the economic, the social, the political, the religious, the technological are so imbricated that changes in one of them can mean simultaneous and a chain reaction of changes in all others [...] and we are inside the movement itself, which does not allow us to take distance [...] with a view to a broader understanding [...]”<sup>(1)</sup>.

Hence, as parts of the context, organizations are complex, ambiguous and paradoxical. They are influenced and influence the external context. Their survival is connected with the ability to apprehend social changes and react rapidly, as organization is considered “[...] a place where different agents contribute with their resources to the production of objects and services. It is also the place that each individual explores, adapts and inhabits to accomplish his own goals [...]”<sup>(2)</sup> or his life project.

In this focus, daily work demands reflection on the need to adopt innovative behaviors and postures that influenced by the way of thinking, that determine the practices established and developed in societies. Thus, in different knowledge areas, rapid changes indicate that human beings’ learning occurs any place and any time<sup>(3-4)</sup>.

It can also be appointed that “[...] from the complexity perspective, service production companies are predominantly active organizations, as they are self-organized and evolve, mainly through the perceptions of employees and clients and the interactions that take place between them during operationalization”<sup>(5)</sup>. Thus, it is observed that complexity is a type of thinking that does not separate, but unites and seeks the necessary and interdependent relations of all aspects of human life, integrating different ways of thinking, opposing reductionist, disjunctive and simplifying mechanisms.

It is through complex thinking that all influences received are taken into account, both external and internal, as well as uncertainty and contradiction, without ceasing to live with the solidarity of existing phenomena<sup>(6-7)</sup>.

In this logic, the hospital, as a social organization, is part of organizations’ context in general and, as such, it is suggested that the inefficacies and inefficiencies of these organizations be treated in the light of a self-referential model, and not an ideal model. Teaching hospitals, like different public companies, face bias as a result of the permanently conflicting relation between business philosophy and public philosophy<sup>(8)</sup>.

In hospital services, workers still have strong contacts with patients (clients) and their relatives. The degree of participation of stakeholders in health service processes

is narrow and determines service production, delivery and consumption, especially at nursing service units like the Pediatric Intensive Care Unit (PICU).

This unit is characterized by the high degree of service personalization and also by the high level of frontline staff decision-making, which makes it complex to coordinate or head service production processes in this area.

Mainly regarding nursing work, as observed, its practice is frequently hampered and even impeded by factors that are external to its dynamics and/or service organization (internal), especially due to the unavailability of varying material resources when this work is put in practice, that is, ranging from lack of medication to lack of water, as well as lack of workers, appropriate physical area, information and communication, among others<sup>(9)</sup>.

In this conjuncture, nurses start to insert complexity or its principles into nursing actions, through reflections and proposals for changes in organization/administration<sup>(10-11)</sup> teaching/education<sup>(3-4)</sup>, care/assistance<sup>(3,7)</sup>, using basic categories of complexity<sup>(6)</sup>, such as: uncertainty, complementariness, dialogicality, interdisciplinarity and transdisciplinarity, among others.

As a consequence of this historical-social context, the way of leading (today managing) nursing services demands transformations, as it is not enough to assume the responsibility for the organization of the environment, work and care. It is necessary to assume the coordination of daily confrontations, whether with patients/family members or with nursing team members themselves, with peers or multidisciplinary team members, besides the confrontations resulting from other internal and external unit and hospital clients.

Thus, heading the nursing unit is affected by social demands that arrive at the hospital, beyond the intervention and recovery of the biological body, that is, actions are needed that consider the human being as a whole. Thus, it is inferred that the daily work of nursing heads at the PICU generates macro and micro-societal and institutional aspects, such as: ethics, cost-effectiveness, organizational culture, human rights, citizenship, justice, autonomy, equity, social control, among others, all of which interfere in the care process for children/adolescents/families.

In this perspective, sharing this function seems to most closely approximate the complexity context, as it dilutes the head’s responsibility for decision-making – which is solitary, centralized, vertical in the traditional conception – in the team although, like cells, heads are the integrating core of the nursing team<sup>(9)</sup>.

In view of the above, questions arise, such as: how does the nursing team perceive the function of PICU head? What factors stimulate the nurses’ interest or lack

of interest in the head function? Does the daily work reality interfere in the nurse's decision to become the PICU head? Does the care dimension weigh in on the leadership dimension of the PICU for the nurses?

Thus, this study looked at the head function of a teaching hospital PICU and aimed to reveal PICU nursing team members' perceptions about the exercise of unit leadership within the focus of the complexity paradigm.

The study was preponderant because, at the hospital, for many years, Nursing Management indicated the person to occupy this function, a policy that caused discussion. The democratization of public organizations like universities and teaching hospitals, however, led to the direct election process to occupy political-administrative positions, with deans, coordinators and heads being elected by the university community.

As opposed to this process, nurses face difficulties to voluntarily participate in elections to be part of the Nursing Service staff though, especially at the PICU. This contradiction deserves further clarifications.

Hence, these aspects and concerns justified the attempt to understand the meanders of this theme because, in hospitals' organizational structures, the position or function of nursing service head exists at hospitalization units, especially the PICU. Nurses occupy these functions, whose education and legal attributions allow them to put this competency in practice.

### **Addressing the perspective of the complexity paradigm**

One can try to understand the world from a complexity perspective. The world is going through constant evolution, regression, revolution, crisis, everything at the same time, which cannot be accomplished through the simplification paradigm<sup>(6)</sup>, which "is the set of intelligibility principles characteristic of classical scientific theories and which, connected with one another, produce a simplifying conception of the physical, biological, anthroposocial universe"<sup>(6)</sup>.

Thus, order reminds us to "the ideas of stability, constancy, regularity, repetition, (...) structure"<sup>(6)</sup>, i.e. order is produced by laws, probabilities, determinations, it is a sign of organization. Disorder refers to "agitations, dispersions, collisions, (...) irregularities, instabilities; it refers to the deviations that appear in a process, which disturb and transform it; to the disorganizations, to the disintegrations, errors or noise"<sup>(6)</sup>, uncertainties and unforeseen circumstances.

What one usually calls complex in daily life is the complicated, imbricated, enmeshed. Nevertheless, it is but a combination of several simple elements, but in processes and counter-processes of simplification and complexification<sup>(6)</sup>.

These processes are ways of describing internal processes and representing systems. Thus, it is in the search for elementary simplicity that one researches fundamental complexity. Simplification selects what is of interest for the cognoscent and eliminates everything beyond its goals; it calculates the stable, the determined, the certain and avoids the uncertain and biased. Complexity attempts to keep in mind a maximum of data and concrete information; it attempts to acknowledge and calculate the varying, the ambiguous, the random, the uncertain<sup>(12)</sup>.

When relativizing complexity, on the one hand, it is part of simplicity and, on the other, opens room for the inconceivable. Simplification appears when distinction turns into disjunction and when union turns into reduction. Simplifying and complexifying are processes and counter-processes.

In this perspective, *complexus*<sup>(13)</sup> (...) means what was woven together; in fact, complexity exists when different elements are inseparable constituents of the whole (like the economic, political, sociological, psychological, affective, mythological), and an interdependent, interactive and inter-retroactive tissue exists between the knowledge object and its context, the parts and the whole, the whole and the parts, among the parts. Therefore, complexity is the union between unity and multiplicity.

Complex thinking can reinforce and develop individuals' thinking autonomy and conscious reflection. Thus, it allows people to build inside themselves the overlooks of meta-viewpoints, capable of identifying its own black holes, of putting to work the dialogic between the global and the private, between the part and the whole, between scientific objectiveness and philosophical reflexiveness, as it understands that the universal does not necessarily entail a superior truth of the here and now<sup>(14)</sup>.

Hence, the complexity paradigm seems to show its importance for organizational research, as "executing is increasingly difficult. Dealing with complexity is our true challenge and, therefore, we will have to unlearn almost everything we have learned as executives"<sup>(15)</sup>.

From this perspective, work relations in an organizational system can also be looked at through improvements in organizational arrangements. These relations are not only justified by human beings/society's needs to remain risk-free, in the search for pleasure/happiness, developing instruments like knowledge, technologies, materials and others to reach the goals but, as the global is implied in the private, mutually influencing one another.

In this sense, nursing studies that used the philosophical and conceptual foundations of complexity, like when studying the relation between human beings

and the environment, mention that this paradigm facilitates the understanding of complex nursing phenomena, favoring the creation of care environments<sup>(16)</sup>.

The care environment is considered the organizational care system through notions of structures and properties, in which this system identifies the reference core that sustains its autonomy.

It is highlighted that the notion of “care environment” and “space of nursing service practices” and its derivations are addressed in a broader sense, including the work environment, which is regulated by the standards that aim to guarantee situations and procedures to achieve a better quality of results, contact with the external context and occupational safety, hygiene and health.

The configuration of a Nursing Care System<sup>(17)</sup> permits visualizing the varying dimensions of care: care of oneself, care of oneself with the other, being taken care of by the other, feeling the personal system process bodily care by oneself, being in the system of multiple care relations and care for nature, getting integrated in other social/natural systems. Thus, it strengthens the feeling of belonging, approaching beings in the search for better survival, vitality, life and human civility.

The complexity of living from the perspective of the complexity paradigm, conceiving unity and diversity in the context of relations, interactions and associations, can be appointed or narrated based on new epistemological and methodological challenges, in the sense of contributing to the movements that favor changes in autoeco-organizing processes in environments that can be characterized as high-complexity<sup>(18)</sup>.

### **Complexity in the daily work of nursing heads at the pediatric intensive care units**

When reflecting on nursing work at the PICU, the image that generally comes to one's mind is that of a group of people who are performing, discussing, controlling, planning and executing a range of activities<sup>(9)</sup>.

The performance of these actions is incremented through wires, equipment, apparels, different sounds of beepers, alarms, noise, cries, laughs, voices, music, smells, objects, lights, paper, other professionals – PICU workers – who inform, request information, orient, determine, communicate actions, procedures. All of this constitutes a chaotic scenario for people who do not regularly attend this unit: and, depending on the moment, the urgent or extremely fast is added to these activities, as seconds or one minute or one instant represent a severe risk to maintain the child's life.

Unfortunately, often, in this space, what is important or turns into a positive result, production, is survival, the maintenance of “gross life”, the child's heart beating; which may not become that relevant at that moment if

the children and families will live with a minimum level of quality and dignity.

In situations like these, several times, nursing team members help, support, gloat as, sometimes, what is important is that the child did not die during their shift, releasing them from supporting and experiencing the despair, pain and suffering of parents and people the child/adolescent relate to. It seems that, when we face death, it arouses our awareness that we are finite, that our children and loved ones are too, a reality that still lacks further research<sup>(9)</sup>.

Besides the patients' (clients/users) aspects, worker aspects also generate the PICU scenario. In the context of the hospital and this service unit, the frontline nursing team, in contact with patients and relatives, deliver care, can manifest problems that belong to private life as, in general, many workers are not well-paid, the hour load is excessive, the work is physically and mentally exhausting, among other difficulties.

When they start working for the organization, workers are confident, full of dreams and ideals. Over time, however, the reality is frequently different. Interpersonal problems gain relevance, many heads are inaccessible or hardly supportive, restrictive standards clip their creativity, constituting a set of difficulties that cool down the workers' initial enthusiasm, jeopardizing the quality of care delivery and the image of the unit and institution as a whole.

In this scenario of interdependent life and death, nursing practices/care are produced and delivered to sick children/adolescents and relatives, which need to translate into results. These are coordinated, headed and sometimes led by nurses, not permitting distancing from human dilemmas and tragedies, which are always present in nursing teamwork.

Hence, it is considered that, at this time, which permanently gains new nuances, it could be interesting for PICU heads to manage to be head-leaders<sup>(9)</sup>. That is, this would help to keep up the existing organization or service's performance, functioning and effective administration, so as to guarantee concrete conditions for whoever participates in care, whether these are workers, patients or family members, in a creative, visionary and daring way, dealing with instead of acting on or for people in the group.

They should also acknowledge nursing workers' value and need for individual growth, integrating administrative and leadership functions without excluding one or the other, as leadership means showing people that innovations serve to improve the system and people<sup>(19)</sup>.

## **METHODS**

This qualitative study involved a reflection group,

constituted through spontaneous adherence, based on the availability of PICU nursing team members who had worked for more than five years, accepted to participate and signed the Informed Consent Term.

Before data collection, the project was submitted to the hospital board for evaluation and authorization was obtained from Nursing Management, considering that, at that time, the Institutional Review Board was being set up. All ethical aspects were complied with, in accordance with National Health Council Resolution No 196/96 on research involving human beings.

Data were collected at the sixth floor of a teaching hospital in the central region of Rio Grande do Sul, involving five nurses and six nursing auxiliaries, totaling 11 participants, during six group meetings. Collective interviews were used as the data collection technique. Interviews took place between April 30<sup>th</sup> and June 4<sup>th</sup> 2001 and took approximately 1h45 each.

In this type of interview, “a dialectical model of establishing truth is proposed, through the confrontation of contrary opinions”<sup>(20)</sup> by group members, who freely chose their codenames.

During each meeting, discussions, reflections, oppositions were recorded. For data to emerge, during each collective interview, a central question was elaborated for the group, depending on the theme to be addressed that day, that is: how do we perceive daily nursing work at the PICU? What do we see as order, disorder, organization? How is the position of the Nursing Service perceived in the institution’s organogram? What do I expect from the PICU head? And we, as a team, how do we perceive the PICU head? Is the nursing head a necessary category for the PICU?

The set of transcriptions of collective interviews constituted the data corpus<sup>(21)</sup>. This gradual construction of the corpus permitted the emergence of partial, increasing coding. The consolidation of the moments permitted the discovery of significant connections between people, events, things and meanings.

The corpus was submitted to floating reading and, then, intuitive grouping of the main ideas and their contradictions, divergences, joining the meanings and essences of that content. After grouping ideas, the units of meaning were grouped, which were called pre-categories or uniting themes.

Regarding the intuitive production of pre-categories or categories, one may say that: “reaching a set of categories by intuition demands integration in a process of self-organization in which, based on a complex set of starting elements, a new order emerges. The intuitive process intends to overcome the linear rationality that is implicit in the deductive as well as in the inductive method”<sup>(22)</sup>.

After this first phase, inspired on systemization<sup>(21)</sup>, the researchers repeated the floating reading; the dismantling of the text (corpus) or unitarization<sup>(22)</sup>, giving rise to the units of meaning (constituted by complex phrases or expressions) and the establishment of relations<sup>(22)</sup> or categorization (by similarity). This process confirmed the 11 initial pre-categories and evidenced another, totaling 12 categories or uniting ideas<sup>(14)</sup>.

## RESULTADOS

Data analysis evidenced 12 categories, all of which were very rich in significant contents, to understand the work relations related to the function of PICU head.

The researchers attempted to elaborate reflections by exploring contradictory aspects, diversities, paradoxes, singularities, approximations, grouping uniting ideas that would cover these nuances.

For the sake of this text, however, four of these categories are presented as structuring facets of the nursing work organization system at the PICU, from the perspective of the complexity paradigm: order, disorder and organization; light and shadow in the PICU context; the power kept in the shadowy area: and the head: from super-man to super-human being.

### Order, disorder and organization

Regarding this theme, which integrates the concepts of the complexity paradigms and constitutes the support for this research, interesting expressions emerged when the group elements managed to reflect daily work from this perspective, i.e. complexity. In this sense, below, some excerpts of the reflexive construction are displayed:

*... order is everything in a sequence, planned ...*(Safira and Neca);

*... everything in its place ...*(Violeta).

Regarding disorder, people expressed themselves as follows:

*... we have to know how to work out of order, because things will never be completely organized* (Neca);

*... things are instable, they do not always start and finish in the same pattern.*

Regarding the organization, some expressions were:

*... order and disorder is a continuous cycle...*(Neca);

*... unforeseen circumstances change the organization...*(Safira).

The group considers order and disorder as complex and involving several sides of the same reality or phenomenon.

### Light and shadow in the PICU context

For a long time, personal, group and inter-group relations in organizations have been perceived<sup>(23)</sup> as woven by an entanglement of feelings, emotions, which constitute a true network with multiple polar, ambivalent and, hence, complex dimensions<sup>(6)</sup>, which may be related to the individual or groups belonging to the organization.

This is evident in one group member's statement:

*... perhaps I didn't say frankly what I think because, you know, it's difficult, people don't accept it, (...), but, in fact, you can't say everything, what you think, because if you do you create great discord, (...), we are free to that extent... (Neca).*

In theory, for example "say frankly what you think" is encouraged; practice, however, shows another reality, i.e. "sincerity is not worth it (generates misunderstanding, resentment and enemies)"<sup>(23)</sup>.

### Power kept in the shadowy area

It seems that, for nursing and nurses, the power problem is controversial, not discussed, debated on and, when this does happen, discussions take a pejorative form.

It is denied that this problem exists and that we, nursing professionals, have and exert power over the patients, family members, colleagues, nursing team and other professionals who relate to us in everyday work.

This is no different for the head, it is even a paradox to deny it as, formally, in institutions and services' organizational structure, the head function entails the face of power and authority. Nurses, however, imagine that they can leave these aside when performing the function. This stood out quite clearly in the statement:

*... I see that some people like to be the head, because they feel the power in their hands, they think that, if they are in charge, their ego hits the roof when they know they are powerful... I don't see it like that... (Safira).*

In this same perspective, "nurses face difficulties to see themselves as leaders and to get in touch with their strength"<sup>(24)</sup>. When they take charge of certain professional actions, conflict is established, as evidenced next:

*... the worst for the head is when one has to call someone's attention or talk about things that are not good, that's horrible... (Safira, Flávia);*

*... you end up taking it out on someone... (Estrela).*

In these fragments, the conflict nurses experience in view of daily orders and disorders is clear. "The

manager's [head] blame for certain professionals and institutional actions can lead to a slow and painful process of relational difficulties in the work environment"<sup>(25)</sup>.

The group, however, needs authority to be recognized and exercise, and this facet was demonstrated many times during the reflexive construction:

*... I think that the head needs to be fair, be firm, the head cannot stroke whoever's wrong to the detriment of who's right, (...), but the head needs to be strong as necessary... (Neca).*

From this perspective, "there is no way of conceiving collective work, anything, that does not necessarily have to be controlled and supervised at the same time, from the technical viewpoint"<sup>(26)</sup>. What seems to bother these professionals is the social meaning of the direction of work.

If, on the other hand, the head does not make decisions or excessively delays the attempt to solve or the solution of different problem-situations, the group does not see him/her as a democratic head (leader), or who promotes shared, participatory management, who is not wanting to merely use the authority the function grants him/her, but as a weakness, a flaw, a lack of professional competency, as the subjects weighted:

*... I don't know if that is fear of confrontation with the employee, of worsening things, or if it's really omission (Neca).*

The nursing team needs to critically reflect on this theme and perceive that the attitude of hiding power and/or authority entails dissatisfaction and difficulties, as it exists among people and inside organizations.

### The head: from super-man to super-human being

For a long time, the problem of heads and leaders has been arousing experts' curiosity. In each age, a huge range of qualities, attributes was required from the head (leader) in response to the circumstances of time and place.

Hence, further emphasis was given, sometimes to the head's (leader) individual aspects, sometimes to those related to the group that was led: and, in other cases, to the existing situation in the historical-social context, for which a certain type of head would be more or less adequate. In recent times, however, the singularity of the head has been excluded as if, by taking up this function, (s)he internalized all attributes attached to this function, ceasing to be a historical-social individual and turning<sup>(23)</sup> into a super-man, capable of solving everything, which no actual professional is able to.

This dimension (of the head seeming to be super-man) is linked with the imaginary<sup>(27)</sup> – these are meanings,

ideas of fantasy, of evocation, of already perceived or unperceived figures, of beliefs, values... that the human being is immersed – which are also present in organizational groups<sup>(23)</sup>.

The most spread archetype\* in myths of all ages and cultures is that of the hero, who represents the fight between good and evil, in which the former wins. The statement below follows this reasoning:

*... a mistaken idea of the head exists, I always think that it's not a figure, but he has to solve everything, I believe in a coordination of things, I think a group is needed which makes things move... however, everyone is in charge of functioning and good course (Luna).*

A distortion exists in the idealization of the head, as the above statement indicates, which demonstrates the work context of the PICU head, who does countless things at the same time. The head elaborates the daily work scale (generally in the morning shift), handles the tasks that links the service (unit) together with other organizational sub-systems, manages care, the organization of the environment and nursing work, delivers direct care to children, assists the parents, among others. How can one not feel overloaded? How can one not suffer from the Atlas Syndrome\*\*)? In this perspective, the researchers agree with the following statement:

*... I think that the head should not have a fixed shift, but flexible work hours outside the scale. Thus (...), he'd be more present, together with the workers. He'd arrive and talk,...) and, at the same time, he'd give support, people would feel supported... It would be good. The head should not be exclusive to one shift. If the head is part of one shift, he also ends up assuming the 'pains' of that shift and that doesn't work. It's not that he wants to, but it's natural that this happens (Neca).*

It is observed that the group focused on wants the head (leader) to have characteristics and qualities appointed in literature<sup>(19,23,28)</sup>, such as being democratic, sensitive, honest, responsible, firm, companion, solidary, friend, understanding, balanced, collaborative, representing and defending the group's interests, impartial, as very well evidenced in the following excerpts:

*... I expect a head who's integrated in his work group and*

\* ... "archetypes are dynamic cores of the psyche, latent dispositions, inherited possibilities, traits of human evolutions, psychic remnants that re-emerge in similar vital circumstances. (...) As archaic remnants, (...), they tend to outline certain representations of a theme and their details can vary, however, without losing the basic pattern"<sup>(23)</sup>. Archetypes "are a priori forms or primordial, virtual images in the entire human spirit. Universal matrices of the collective unconscious command and control our dreams and myths"<sup>(29)</sup>.

\*\* Greek mythological character, obliged by Zeus to carry the world on his back.

*impartial. That his decisions do not benefit some to the detriment, harm of others, that he benefits the entire group. He should also be responsible...(Estrela).*

*... sometimes people don't solve, it's not so as not to offend the head, it's because it's really easier to leave it to someone else, they get accommodated...(Safira).*

When some workers perceive that the head is a human being, their idealized view continues. Thus, the idealization of the head (leader) persists, as demonstrated in the subjects' thinking below:

*... well, we think that, to the extent that the head is a human being, what is expected from the head is what is expected from any human being because, in fact, we expect people to be like that, that colleagues are like that, democratic, all of those things we mentioned (Luna and Safira).*

An exception is made for the idealization that makes the group create a fantasized reality, a naïve view of the nurse-head (leader), as "we live (...) in a universe of signs, symbols, messages, figurations, images, ideas, which designate things, situations, phenomena, problems to us but which, for the same reason, are the mediators necessary in men's mutual relations, with society, with the world"<sup>(14)</sup>. It is considered relevant, however, for the head to understand this process, to be able and skilled to help the group in daily confrontations: as observed in the following statement:

*... transmitting safety to the team, if the head does not trust the employee that hampers our self-confidence...(Magaly and Luiza).*

The researchers agree with the study group's assertion that:

*... the head should be flexible towards situations. The head who knows everything is because he's not humble to share with the team. He's all-powerful to the extent that he doesn't show insecurities and, therefore, raises barriers and protects himself..., he often doesn't know how to solve things and takes distance from the group (entire group).*

This observation is in line with the premises of this study, as it is advocated that, perhaps, it might be more interesting if the nurse-head tries to share-socialize knowledge, mediate individual and collective growth, learn to live with diversity in group, permit the group to make the best of each member's creativity.

## DISCUSSION

The interviewees' declarations are aligned with

complexity thinking<sup>(5)</sup> in the sense that: “there are various forms of order”, that is, different orders exist for human, biological, social, physical, economic and spiritual events.

This once again relates to the theoretical framework, when one finds support in the ideology of the Complexity Paradigm<sup>(6)</sup>, as “excessive order suffocates the possibility of action. Excessive disorder capsizes action during tempests, and action turns into a pure game of chance”.

It should be reminded that “isolated, order and disorder are two calamities”<sup>(29)</sup>; and, moving back to the study focus, it is perceived that excessive disorder, conflict, instability, agitations, accidents and irregularities are unthinkable in the PICU head’s actions, as well as excessive stagnation, constancy, regularities, repetition, routine and stability.

It is in the combination, interaction between so antagonistic moments as order and disorder and both alternating with moments of organization that the head and the teams creativity, ingenuity, strategic and action capacity flourish in daily reality. This is again confirmed, as many moments of genesis start with destruction; this is thus an ambivalent (oral information), ambiguous and contradictory process, as “creation is only possible through deregulation”<sup>(30)</sup>.

It can be affirmed that, inside the PICU, relations, interactions, interconnections are processed in the same way, that is, the clear, objective, direct, rational, visible, productive aspects are accepted and discussed by everyone at the unit.

The shadowy aspects, however, such as competition, envy, aggressiveness, coercion, punishments (many of them hidden), are filched<sup>(23)</sup> and not discussed openly with the nursing team, although this possibility is reaffirmed in theory.

It is observed that the duality of enlightened and shadowy aspects are present, which is confirmed<sup>(14)</sup>: “many explicit messages enclose other implicit and generally discordant ones, which demand skill and intuition to get away from the (...) apparent content and manage to decipher the latent psychological content (...). This unveils the actually adopted standards of behavior, the profiled values, the organization’s true ideology, often quite distinct from what is proclaimed in official oral and written pronouncements”.

It is perceived that this ambivalence is not a privilege of large corporations and that it is present at the institution, the workplace, in daily life. As it belongs to organizations’ dark area, however, it is not discussed, not accepted, remaining covered in the institutional reality.

Regarding the power issue, it was evidenced that it is kept in the shadowy area, as a “socially established prejudice exists on the exercise of authority”<sup>(25)</sup>, which

is a remnant of the long military regime in Brazil and results from the counter-current of repressive education.

Specifically in the case of nursing, this concealment of authority also seems to be connected with the fact that professionals want to take distance from the image of nurse-coronel, that is, from that figure of the ugly nurse (woman), asexual, bossy, very severe, dressed in an outdated uniform and cap, as well as that of sister of charity, which are the images of the profession that are most widespread in society.

The fear of being accused of authoritarianism opens great room for permissive attitudes in the leadership of institutional groups. Personally, people in functions that evidence the exercise of authority are inhibited by the fear of seeming authoritarian, or even feel guilty when they find themselves obliged to assume certain attitudes and decisions<sup>(25)</sup>.

In line with this thought, one can observe that “any work that is collectively performed by dividing functions necessarily implies a function that takes care, that makes the whole move (...) towards the product... it are personal, informal relations, totally opposite to interference in the technical contents of work”<sup>(26)</sup>.

It is inferred that the same thing happens among nurses. Similar studies<sup>(25)</sup> involving nurses from the management area seem to evidence the existence of confusion in people’s imaginary about power and authority. This favors the appearance of discordance, tense personal relations, dissatisfactions in daily work, when one denies the understanding that “control of the work process is an essential condition for its accomplishment under any condition”<sup>(26)</sup>. And not oppressive control over people, although control will be exerted over them, even if minimal, when one adequately control the work process.

Regarding this aspect, sometimes, at high hierarchical levels, the power dispute gains subtle, veiled, hidden characteristics. Discourse is covered by words of encouragement, cooperation, incentive to work as a team; actions, however, oppose discourse and postures of clear or hidden competition are adopted, inhuman and cunning maneuvers, everything to achieve individual prestige<sup>(23)</sup>, which can be social, professional, economic, scientific.

The fact of denying or ignoring the existence of power, as nursing does, does not minimize these movements, on the opposite, it makes the power game, in the nursing community, be hidden by other aspects, assuming other tints and nuances than the concrete ones.

The study group considers the head an idealized figure, who is capable of taking all initiatives and of being responsible for problem solving. Whether these are material, structural, equipment, lack of staff, relationship problems, disciplinary and interdisciplinary,



patient and family-related, ethical, educational, among so many others, the group expects the head to solve them and offer the best work conditions to the team.

Thus, they put the head in a position of provider, that is, “it is the unconscious figure of the idealized father [myth] who provides for, protects and fights for his children”<sup>(23)</sup>, while the group continuous as the receiver, instead of participant, building the relations and movements of daily work.

Thus, when they perceive that the head (leader) is a common, fallible person, with limitations, like any team member, they are disappointed, which is incoherent, as the group knows the nurse. He works together with the same group, sometimes for many years; when taking up the function, however, the team starts to see him as the “savior of the fatherland”, which is nevertheless a paradox.

In this perspective, “the idealization turns into depreciation and the leader needs to be replaced by another, whose destiny will be similar, repeating the idealization-depreciation cycle. It is difficult for a true leader to be capable of attending to the [team] members’ emotional needs and expectations”<sup>(23)</sup>, arousing feelings of abandonment, despair and directly affecting the quality of daily work, that is, nursing care delivery to severely ill children/adolescents.

At some time, the participants appointed that human beings are contradictory, capable of measures and excesses, conflicting, vibrational, pulsating, emotional and rational<sup>(9)</sup>.

Nobody “does things alone”, although nurses have been made to think and act like this, for some time, what counts is the process of searching and managing to mobilize internal (intrinsic) resources to deal with situations, people, oneself and the world, through learning for life<sup>(23)</sup>. In other words, being permanently willing to learn how to learn.

### **Finally... some reflections**

Reflecting on the daily work of a nursing unit head involves perspectives that are not clear, apparent in the scenario of daily work. That is, they include reflection on dilemmas in decision-making in situations with growing needs and limited resources.

These perspectives also involve ethical issues related to clients’ lives, to nursing and health workers in general, regarding educative issues and other contradictory, biased situations that happen in daily hospital practice, with multiple bottlenecks that discourage and make nurses avoid the PICU head function, such as the nurses’ idealization that direct patient care is more valuable than heading this unit.

These aspects are not only limited to concrete events, but mainly to the imaginary, the worldview, beliefs, values, individual and group education, i.e. subjective aspects that remain hidden and, covered, remove the possibility to understand these dimensions, which are relegated to shadow areas in the organizations and health services.

This entanglement of relations, interconnections, in multiple dimensions, demands that nursing workers and mainly nursing heads acknowledge the complexity of the head function, regarding its uncertain, instable, insecure, illogical, contradictory, biased, variable, random, indeterminate aspects, besides others that flee further from order, objectivity, certainty or the determined.

To face this complexity, one needs to be compelled to strengthen aptitude, ability, will, ability to integrate private into general knowledge on a daily base, the ability to connect the context, the global into our reality, our life. After all, what kind of work is this?

It is conflicting, paradoxical, complex, necessary, challenging, involving work, which demands persistence, constant attention with a view to the nursing team’s daily engagement in the search for solutions to disorders, unforeseen aspects, problem situations experience in daily work and daily private life.

The latter is also present in the public sphere. It is both necessary and important to broaden one’s perspective beyond contradictions, divergences, antagonisms, approximations and similarities..., in short, to much more, so that one can know or understand what this work of nursing head is.

Nevertheless, despite being elected, the condition of head seems to be something that implies work relations, leadership, negotiations, decision-making process, the exercise of authority, which lack a better understanding by some nurses and the team itself.

Within this focus, it is reaffirmed that health services depend on workers’ contact with (internal and external) clients, on their involvement, determining service production, delivery and consumption at nursing service units and, in this case, at the PICU. They are characterized by a high level of personalization, a high degree of decision-making by frontline staff, continuous control of processes, unpredictability and the constant need for readiness, which make its complex to coordinate or head service production processes in this area.

Thus, the researchers attempt to advance on knowledge construction by conceiving nursing activities as a service production system in a care environment, appointing the main structures and properties visualized in the relational, interactional and associative processes of this complex system in the care environment.

## REFERENCES

1. Freitas ME. Contexto social e imaginário organizacional moderno. *Rev Admin Empresas*. 2000; 40(2): 6-15.
2. Fischer GN. Espaço, identidade e organização. In: Chanlat JF, coordenador. *O indivíduo na organização: dimensões esquecidas*. São Paulo: Atlas; 1993. v. 2.
3. Tier CG, Lunardi VL, Santos SSC. Cuidado ao idoso deprimido e institucionalizado à luz da complexidade. *Rev Eletrônica Enferm* [Internet]. 2008; 10(2):530-6. Available from: <http://www.fen.ufg.br/revista/v10/n2/v10n2a24.htm>.
4. Silva AL, Camillo SO. A educação em enfermagem à luz do paradigma da complexidade. *Rev Esc Enferm USP*. 2007; 41(3): 403-10.
5. Klement CFF. Complexidade no sistema de produção de serviços: um estudo de caso no setor hoteleiro [dissertação]. Florianópolis: Curso de Pós-Graduação em Administração da Universidade Federal de Santa Catarina; 2000.
6. Morin E. *Ciência com consciência*. Portugal: Europa-América; 1982.
7. Terra MG, Camponogara S, Silva LC, Girondi JBR, Nascimento K, Radünz V, Santos EKA. O significado de cuidar no contexto do pensamento complexo: novas possibilidades para a enfermagem. *Texto & Contexto Enferm*. 2006 15(Esp):164-9.
8. Serva M. O paradigma da complexidade e a análise organizacional. *Rev Admin Empresas*. 1992; 32(2): 26-35.
9. Pradebon VM. O cotidiano da chefia de enfermagem da unidade de tratamento intensivo pediátrica: que trabalho é esse? [dissertação]. Florianópolis: Centro de Ciências da Saúde da Universidade Federal de Santa Catarina; 2002.
10. Erdmann AL, Sousa FGM, Backes DS, Mello ALSF. Construindo um modelo de sistema de cuidados. *Acta Paul Enferm*. 2007; 20(2): 180-5.
11. Erdmann AL, Andrade SR, Mello ALSF, Horner V. Gestão das práticas de saúde na perspectiva do cuidado complexo. *Texto & Contexto Enferm*. 2006; 15(3): 483-91.
12. Morin E. *O problema epistemológico da complexidade*. Portugal: Europa-América; 1983.
13. Morin E. *Os sete saberes necessários à educação do futuro*. 2a ed. São Paulo: Cortez; Brasília: Unesco; 2000.
14. Morin E. *O método: 4. As idéias, habitat, vida, costumes, organização*. Porto Alegre: Sulina; 1998. 288 p.
15. Nóbrega C. Em busca da empresa quântica: analogias entre o mundo da ciência e o mundo dos negócios. Rio de Janeiro: Ediouro; 1996.
16. Davidson AW, Ray MA. Studying the human-environment phenomenon using the science of complexity. *ANS Adv Nurs Sci*. 1991; 14(2):73-87.
17. Erdmann AL. *Sistema de cuidados de enfermagem*. Pelotas: Universitária/UFPel; 1996.
18. Morin E. *O método 5: a humanidade da humanidade*. Porto Alegre: Sulina; 2002. 312 p.
19. Fandinõ A. O papel da liderança nas transformações das organizações. *Rev Tendência Trabalho*. 1996; 272:14-5
20. Morin E. Da entrevista no rádio e na televisão. In: Morin E. *As duas globalizações: complexidade e comunicação, uma pedagogia do presente*. Porto Alegre: EDIPUCRS; Sulina; 2001.
21. Bardin L. *Análise de conteúdo*. Lisboa: Edições 70; 1977.
22. Moraes R. Uma tempestade de luz: a compreensão possibilitada pela análise textual qualitativa. *Cienc Educ*. 2003; 9(2): 191-211.
23. Moscovici F. *Renascerça organizacional*. 2a ed. Rio de Janeiro: José Olympio; 1996.
24. Machado E. Gente que cuida de gente. *Nursing (São Paulo)*. 2000; 3(29): 8.
25. Leite E, Ferreira L. Diagnóstico e mobilização: dinâmicas do corpo gerencial relatório de avaliação. *Vivendo e Trabalhando Melhor - Núcleo de Apoio Permanente*. Brasília: Centro de Aprendizagem Vivencial; 1997.
26. Gonçalves RBM. *Tecnologia e organização social das práticas de saúde: características tecnológicas de processo de trabalho na rede estadual de centros de saúde de São Paulo*. São Paulo: Hucitec; 1994. p. 125-269.
27. Nitschke RG. Mundo imaginal de ser família saudável: a descoberta dos laços de afeto como caminho numa viagem no cotidiano em tempos pós-modernos. Pelotas: UFPel; 1999. [Série Teses em Enfermagem, 21].
28. Penteadó JRW. *Técnica de chefia e liderança*. 7a ed. São Paulo: Pioneira; 1986.
29. Morin E. *Contrabandista dos saberes*. In: Pessis-Pasternak G. *Do caos à inteligência artificial: quando os cientistas se interrogam*. São Paulo: Editora Unesp; 1993.
30. \_\_\_\_\_. *Complexidade e liberdade*. In: Morin E, Prigogine I, et al. *A sociedade em busca de valores: para fugir à alternativa entre o cepticismo e o dogmatismo*. Lisboa: Instituto Piaget; 1996.