

## Nursing work and competence in hemotherapy services: an ergological approach

Trabalho e competência do enfermeiro nos serviços de hemoterapia: uma abordagem ergológica Trabajo y competencia del enfermero en los servicios de hemoterapia: un enfoque ergológico

#### ABSTRACT Objetives: to analyze the ingredients of the competence that the nurses use in the

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#### How to cite this article:

Frantz SRS, Vargas MAO, Pires DEP, Brito MJM, Bitencourt JVOV, Ribeiro G. Nursing work and competence in hemotherapy services: an ergological approach. Rev Bras Enferm. 2020;73(3):e20180775. doi: http://dx.doi.org/10.1590/0034-7167-2018-0775

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EDITOR IN CHIEF: Antonio José de Almeida Filho ASSOCIATE EDITOR: Priscilla Valladares Broca

Submission: 11-02-2018 Approval: 04-15-2019

performance of their work in hemotherapy. **Methods:** qualitative study with 22 nurses, accomplished through documentary study, observation and semi-structured interview, with resources of Atlas.ti software based on the foundations of Historical Materialism Dialectic and Ergology. Performed Content Analysis. **Results:** the domain of specific knowledge of hemotherapy and the time of experience in the area, allied to the motivation of the worker and the ability to work in a team favor the competent action in the work activities. On the other hand, the lack of adequate work conditions, especially in relation to adequate materials, equipment and structure, impairs the work of the nurse in hemotherapy. **Final Considerations:** experience gained is critical to successful decision making. In addition, adequate working conditions, updating of knowledge and ability in teamwork favor a scenario of safe practices.

Descriptors: Blood Transfusion; Blood Donors; Hemotherapy Service; Nursing Care; Work.

#### RESUMO

**Objetivos**: analisar os ingredientes da competência que os enfermeiros utilizam na realização do seu trabalho na hemoterapia. **Métodos**: estudo qualitativo com 22 enfermeiros, realizado por meio de estudo documental, observação e entrevista semiestruturada, com recursos do software Atlasti, embasado nos fundamentos do Materialismo Histórico Dialético e da Ergologia. Foi efetuada Análise de Conteúdo. **Resultados**: o domínio do conhecimento específico da hemoterapia e o tempo de experiência na área, aliados à motivação do trabalhador e à capacidade de trabalho em equipe, favorecem o agir com competência nas atividades laborais. Por outro lado, a falta de condições adequadas de trabalho, especialmente em relação a materiais, equipamentos e estrutura adequados, prejudica o trabalho do enfermeiro em hemoterapia. **Considerações Finais:** a experiência adquirida é determinante para o sucesso na tomada de decisão. Além disso, condições adequadas de trabalho, atualização de conhecimentos e habilidade no trabalho em equipe favorecem um cenário de práticas seguras. **Descritores:** Transfusão de Sangue; Doação de Sangue; Serviço de Hemoterapia; Assistência de Enfermagem; Trabalho.

#### RESUMEN

**Objetivos:** analizar los ingredientes de la competencia que los enfermeros utilizan en la realización de su trabajo en la hemoterapia. **Métodos:** estudio cualitativo con 22 enfermeros, realizado por medio de estudio documental, observación y entrevista semiestructurada, con recursos del software Atlas.ti con base en los fundamentos del Materialismo Histórico Dialéctico y de la Ergología. Se realizó un análisis de contenido. **Resultados:** el dominio del conocimiento específico de la hemoterapia y el tiempo de experiencia en el área, aliados a la motivación del trabajador y la capacidad de trabajo en equipo favorecen el actuar con competencia en las actividades laborales. Por otro lado, la falta de condiciones adecuadas de trabajo del enfermero en hemoterapia. **Consideraciones Finales:** La experiencia adquirida es determinante para el éxito en la toma de decisiones. Además, condiciones adecuadas de trabajo, actualización de conocimientos y habilidad en el trabajo en equipo favorecen un escenario de prácticas seguras.

**Descriptores:** Transfusión Sanguínea; Donantes de Sangre; Servicio de Hemoterapia; Atención de Enfermeira; Trabajo.

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#### INTRODUCTION

Work processes undergo frequent changes and are influenced by the technological and scientific advances in labor activities. These changes have major impacts in all areas, including health. With the constant update of diseases treatments through transfusion of blood components, there is a need for qualified professionals to work in the multi-professional team, among which is the nurse<sup>(1)</sup>.

Nurse's work in hemotherapy has been occurring for some years and is a nursing area currently in evolution. These professionals have a prominent position in hemotherapy, as they act in several scenarios in the context of blood donation and transfusion, embrace different work processes and articulate different dimensions<sup>(2)</sup>.

The work process, in the perspective of Marx's Dialectical and Historical Materialism, consists of the way in which professional activities are developed and is represented by a set of procedures necessary for men to transform nature into objects, through instruments and for some purpose<sup>(3)</sup>. The Dialectical and Historical Materialism allows analyzing human development, taking into consideration that the human being is modified as he acts and transforms nature. In the case of the work process in hemotherapy, the object of the work is what will undergo the transformation, that is, the patients who need the nursing care, represented by the person donating blood or the person who needs the blood components. The agents are the professionals, those who perform the transformation. Instruments are represented by the products that the worker uses to transform the object. The instruments can be tangible or intangible, such as the knowledge used to perform the work. The purpose of the work corresponds to the factor that gave rise to the necessity of the work, that is, health care, nursing care. The working methods are the actions organized to carry out the work in order to achieve the purpose, that is, the activities developed with the use of the instruments, in order to obtain the desired service - clinical screening, blood collection or blood transfusion. And the product in hemotherapy is the result of the care, that is, the blood product or the result of the blood transfusion and the improvement of the patient's health<sup>(4-5)</sup>.

In nursing, the work process can occur in different dimensions: assistance, administration, education and research; and the nature of work gives the professional the ability to associate the work process in nursing and the work process in health. The nurse is a professional that develops activities in several areas and has work processes different from other health workers, considering the position they occupy in health work. They can coordinate the work process in nursing, direct the work process in health and carry out care activities at the same time<sup>(6)</sup>.

Brazilian and international studies show that the knowledge of nursing professionals about hemotherapy during their professional training is still incipient; however, blood transfusions are part of the routine of these professionals, which demonstrates there is an inconsistency between the professional training of nurses and the activities developed by them<sup>(7-8)</sup>.

In this research, it was pertinent to use Ergology as theoretical framework to analyze the work situations and the perspective of the worker, revealing the nurses' experiences in relation to the work organization. The assumptions of Ergology allows studying the work situation from a perspective focused on the analysis of real situations. In addition, it is possible to understand the activity as a result of many components that vary according to each individual and each context. The workers' experience in relation to the work organization are analyzed considering antecedent norms, renormalization and use of self<sup>(9)</sup>.

Antecedent norms correspond to everything that directs the professional activities, the regulations and procedures elaborated to guide the professionals on their actions. Renormalization corresponds to the execution of work activities according to the interpretation of the antecedent norms. And the use of self represents the human side of the worker, because the work is a 'dramatization of the use of self', with the confrontation between the antecedent norms and the necessity of renormalization<sup>(10)</sup>.

Between the prescribed work and the real work, the worker must solve problems that appear in the work process. To work is to solve issues that appear during the accomplishment of the tasks determined by another person or by oneself. This work, characterized by the management of diverse variables, includes, besides solving problems, the construction of knowledge and the worker's action when the prescribed work fails, which favors their work with the competence to "fill the gaps". In this process, the worker gains qualification and consolidates and recreates types of knowledge that cannot be taught, because they come with acquired experiences that will contribute to decision making in future situations<sup>(5)</sup>.

Given these considerations about Ergology, it is possible to understand that professional training anticipates work situations, but it is in the actual work that the individuals use their knowledge, their experience and the set of practices necessary to carry out this work. Knowledge and value are like substances that permanently develop, transform and relearn themselves and are eventually applied to work activities, forming what we call competences<sup>(10)</sup>.

According to Yves Schwartz, the ingredients for the work to be carried out are: 1) The mastery of the knowledge necessary to perform the activity and the mastery of norms and protocols; 2) The knowledge acquired through professional experience; 3) Ability to associate the first two ingredients; 4) The worker's point of view on the discussion of norms and values imposed and instituted on the activity, 5) Activating or doubling the potential of the worker 6) Ability to work, to boost the team and to contribute to the strengthening of the bonds between peers – the collective character<sup>(5)</sup>.

Therefore, to understand the nurse's work in hemotherapy as competent actions, from the perspective of Ergology, it is necessary to consider a combination of ingredients that would be present in work situations, in varying degrees of intensity, which are a list of characteristics or a series of elements combined to carry out the activities with quality, achieving success in the work and developing each one's potential<sup>(5)</sup>. The result of this study will allow understanding and articulating concepts such as: the use of self and the dramatization of the debate of norms and values of the work activities.

#### OBJECTIVES

To analyze the ingredients of competence that nurses use to perform their work in hemotherapy.

## METHODS

#### **Ethical aspects**

The project was approved by the Research Ethics Committee in compliance with Resolution 466/2012, which addresses standards for human research. Anonymity and freedom of choice to participate were assured. Participants were identified by name, followed by type of blood products.

## Type of study

Qualitative study, based on Dialectical and Historical Materialism and Ergology.

## **Methodological procedures**

The study was conducted with 22 nurses who carry out activities related to hemotherapy in the blood center studied. In the collection period, the total number of nurses was 28.

The following inclusion criteria were applied: nurses who were working with hemotherapy in the blood center and who had a minimum of 6 months of professional experience. Nurses who did not conduct hemotherapy procedures were excluded.

## Scenario of study

Blood center located in the northern region of Brazil.

## Data source

Twenty two nurses who met the following inclusion criteria participated in the study: nurses working in activities related to hemotherapy in the blood center and with a minimum of 6 months of professional experience in the institution.

## Data collection and organization

Considering the objective of the study, triangulation was used in data collection and analysis; therefore, the data included were the information available in the legislation of hemotherapy and in nursing legislation, the information collected in the field observations and the information obtained in semi-structured interviews. Data were collected from April to December 2017, through documentary study, participant observation and interviews. The documentary collection analyzed the documents of the National Blood Policy of the Ministry of Health and the decrees, resolutions, norms and assistance protocols on hemotherapy and on the nursing work in this area.

The documentary analysis allowed knowing what is prescribed regarding the work of the nurse in hemotherapy, that is, how this work should be conducted according to the current legislation and the institutional procedures. For the interviews, the professionals were invited to participate in the study and, after their acceptance, the Consent Form (TCLE) was signed. To reach the study objective, the interviews were conducted according to the participant's availability and using the semi-structured interview technique, which allows the interviewee to talk about the subject without being limited by the initial question<sup>(11)</sup>. The interviews were individually recorded by the researcher and had an average duration of 45 minutes each.

The participant observation script was used to guide the observation and the field diary was used as a data collection instrument. The researcher followed the activities performed by the nurses on different days of the week and different work shifts, according to the availability of the service. In the blood cycle, the observation was performed only during the day, considering that the service only operates on this shift. The observation time was an average of four hours per professional, totaling 84 hours.

Observation and interview records were entered in the software Atlas.ti 8.2.1 (Qualitative Research and Solutions). This software is used in qualitative studies because it allows the storage, coding and integration of data.

## Data analysis

Interviews and observations were read and coded according to content analysis standards<sup>(11)</sup>. Then, the data were organized into six categories of analysis, according to the ingredients of competence presented by Schwartz, in Ergology theory, and analyzed according to the theories of Dialectical and Historical Materialism and Ergology.

## RESULTS

Among the 22 nurses who participated in the interview and in the observation, thirteen provide care to blood donors and nine to recipients of blood products. Among the participants, 18 were female and four were male. The age of the participants ranged from 30 to 55 years and their training time ranged from 1 to 25 years, with 17 professionals that had more than 10 years of training and two that had less than five years. Regarding their time of work in the blood center, four nurses had less than five years of work and one had been working for 27 years in the institution. Some of the professionals had already worked in the institution but in other activities in the health area and were currently nurses. About the training in the area, four professionals were specialized in hemotherapy, the other professionals were experts in other areas of practice and four had no specialty. Because it is a public institution, most of the professionals (19) are public servants, two are scholarship holders and one is a temporary public servant.

The work in hemotherapy requires the mastery of the legislation in the area; in addition, the professionals who work in hemotherapy must be aware of the constant updates on the norms and practices in force. It is a necessary knowledge that has repercussions on the different status these professionals have in relation to other services. The mastery of antecedent norms, that is, the knowledge that the professionals have about specific legislations, is important to guide all the activities in the area and represents the first ingredient of competence. On this aspect, it was possible to observe concern about the specificities of the work in the interviewees' speeches and in the observation of the activities performed at the blood center. This concern is evident in all areas of nurses' work, but very pronounced in the area of production, especially in the clinical screening of donors. In the clinical screening of donors and in donor and patient care it was possible to observe that some professionals have limited knowledge regarding their activity. They do not have knowledge of the whole picture, only of part of the process, which hinders the development of the activities. Some nurses who work in clinical screening know little about the processes that are carried out after blood collection, others know how to carry out blood transfusion procedures, but have no knowledge about the area of production of blood products.

Some reports denounced that some professionals who develop activities in the blood center are not adequately trained for their professional activities, and thus may be putting at risk the quality of products and the health of the patients who use them. These reports stated that this attitude was justified by the necessity of professionals to work.

The procedure of the institution when a new professional arrives is to have a moment of integration with managers of all areas of the blood cycle, from collection until transfusion, before inserting the professional in the work activities. The newly hired professionals spend a period watching another experienced professional, so that they can gradually feel safer and start mastering the knowledge necessary to carry out the activities with independence. The study of legislation is under the responsibility of the professional.

> We apply the legislation throughout the whole blood donation process. We follow all the norms established by the Ministry of Health and the General Blood Coordination. We are always up to date, and in hemotherapy the updates are very frequent, with new legislation almost every year. The norms that are most used today are Decree 158/2016, the Resolution of the Collegiate Board 75/2016 and the Resolution of the Federal Nursing Council 0511/2016. (A+ Platelets)

> In there, we follow the transfusion protocol and the medical prescription; for example, in some prescriptions scheduled the patient has a transfusion today and comes back in two days. (O+ Plasma)

The use of legislations during the development of activities, especially in the clinical screening of donors, is part of the routine of these workers; these norms are constantly consulted, mainly by the professionals who do not master this knowledge.

> I use it all the time, it is my guide. I consult it because sometimes I forget a situation that can harm the donor or the person who will receive the blood and then I have to look for the information. (B+ Platelets)

> Everything we do here is based on these decrees; for example, the elaboration of manuals and the standard operating procedures, technical visits to agencies, contracts. (A- Platelets)

Standard operating procedures are also part of the professional routine and are available in all sectors. These documents are prepared by the managers of each area according to current legislation and should be followed during the development of the activities. In order to guarantee that the activities are executed according to the prescribed norms, the professionals are trained and have their doubts clarified, avoiding divergent behaviors and aiming for a closer proximity between the professionals and the instrument to be followed. We did not identify training on operating procedures or individualized training for newly hired professionals.

> All the protocols used are elaborated according to the Resolution of the Collegiate Board 34, the Decree 158, the Federal Nursing Council 511/2016, and the Federal Nursing Council 293/2004 on staff sizing. There are many demands and everything that we do here goes through the approval of the quality sector and must comply with the legislation and the recommended guidelines. (B- Red Cells)

> We follow the blood transfusion protocol, which is formulated according to the legislation. We also have a hemovigilance system for when the patient has a transfusion reaction, we are attentive to the procedure records, the correct checks, the use of personal protective equipment, and we systematize the entire nursing care for patient safety. (B+ Red Cells)

Professional experience is a strong factor in the institution and represents the second ingredient of competence. In this sense, the experience acquired allows the professional to gain practical knowledge according to the situations experienced. It was possible to perceive that professionals with more experience are those with greater decision power and problem-solving skills in work situations.

> Nowadays, I can tell by the way the person talks and look at me if they are omitting information. And when I realize that they are not talking, I reinforce the question, I explain the importance of the truth, both for them and for the person who will be receiving the blood, because they can harm someone. I make a drama so that the person tells the truth and is aware of their responsibility as donor. I have acquired this experience over time, before that I would even call colleagues to help. (A+ Plasma)

> I once screened a person and discovered that he had hepatitis B. Then a woman entered and, according to her questionnaire, she was able to donate, but then I saw she was wearing a ring that matched the previous candidate with hepatitis. If I had been less careful, she would have donated blood. She denied everything. So, there are several particular situations that only time and knowledge can assist us in our decision making. (B+ Plasma)

The statements showed that, according to the time of experience, the professionals will develop skills to act in different situations, in the activities related to the donors, which require fast reasoning regarding the clinical and behavioral conditions of the donor, and in the activities performed with the patient.

> There are blood donation candidates of all kinds, people with the goal of giving, people who come for examinations because they think they have some disease, then we have to investigate. I realize that the longer I work here, the more I learn about how to deal with these people and how to identify when they are lying, and the more I know about hemotherapy. We collect blood to save lives and if our screening is not well done, then diseases can be spread. Of course, there are exams, but what

about the window period? We have cases of seroconversion, even with old donors; this proves you can never be too careful. (AB+ Red Cells)

When a patient comes from urgent care he already arrives with a medication prescription, but just by looking at the patient I can see that he will probably need a transfusion; so I already collect blood for the laboratory and for us, so if the results show that he needs a transfusion, I already have a sample to test for compatibility, and I can avoid puncturing the patient more than once. (A- Red Cells)

In addition, the experiences allow the professionals to know their audience, and with that they can improve their conducts. The mastery of this work can only be achieved with experience, which is not described in norms and institutional protocols.

> If we change the way we ask, we can sometimes catch many important situations. We see people of all kinds here. There are people who come to the blood center because they want to get tested, there are people with sexual promiscuity who come just to get tested for HIV, and they have been told by others not to mention anything. (B- Platelets)

> Sometimes the patient really needs the blood, and we cannot cancel the transfusion, so we need a very cautious evaluation. The patients here are specific, they are multi-transfused and have characteristics that, with our experience, require a lot of care to minimize any risk. Puncture access is very difficult as well. (A- Red Cells)

> Before starting the blood transfusion, we have to ask the patient for his blood type, and we reinforce that he should not forget his blood type, because sometimes the patient thinks he has one and it turns out it is another. Sometimes the patient is wrong and sometimes the compatibility test can be wrong, so we try to close all these possibilities so that there is no mistake, so if the information does not add up, we can check everything, and we only start the transfusion when all is right. (A- Red Cells)

The third ingredient of competence is the ability that the professional acquires to associate antecedent norms and experiences. In this regard, it was possible to identify that professionals use both the prescribed knowledge and their own experiences to carry out the work. In clinical screening, the work developed by nurses requires a lot of theoretical knowledge and experience to deal with people, since the activity involves a personal clinical investigation about the health and behavior of the candidate for blood donation.

I only work in screening, only clinical screening. I do it exactly as it is in the decree, and even more, in a more extensive way, because not everything that concerns the life of the person and can compromise the blood is in the decree. I ask more questions. The decree is very restricted. (A+ Plasma)

I always consult the legislations because sometimes we forget a situation that can harm the donor or the person who will receive the blood and then I have to look for the information. Another thing that happens is I look after a colleague for guidance. I always ask for help when I find it necessary. (B+ Platelets) In the treatment of adverse reactions to blood donation and in the care of the patient who will receive the transfusion, the nurse's activities are aimed at improving the health conditions of this patient. Therefore, in addition to the specific theoretical knowledge, the experience and ability to deal with technical issues are extremely important and are determinant factors for improving the clinical conditions of the patient.

> The main activity, that will guide the procedure as a whole, is the moment of the interview with the patient, when we assess if the patient has received a transfusion before, if he is multi-transfused, if he has had a transfusion reaction; we get a profile of the patient and then we can know how the procedure will be and identify problems that may happen, preventing complications. This moment is the most important, because we, who already work here, based on what the patient says, can know what are the possible intercurrences; then we can get ready and even contact the doctor to prescribe medication before the transfusion so that the patient does not have any complication. (A+ Red Cells)

Professional experience is an important factor to facilitate the work and minimize risks to the patient, both in the care of the donor and in the care of the recipient of blood products. In addition, the care provided by a professional with mastery of this competence leads to the satisfaction of the user and of the professional himself; it also values the institution where the professional works, through the inclusion of society in blood donation.

The satisfaction of the worker with the activities carried out alludes to the fourth ingredient of competence of nurses who work in hemotherapy, which refers to the debate of norms and values. On this subject, it was possible to perceive that nurses' work is often influenced by their own working conditions, especially the demand of activities and the lack of adequate material, equipment or physical structure to carry out the activities according to the prescriptions. These factors generate stress, discourage and frustrate the professionals, and may affect the result of the work developed.

> We are the first contact of the donor, and when the donor does not receive the attention, he needs he will not return. If he receives an inadequate treatment he will not return. And there's more, if you write in the productivity report that you were like 15 minutes with the donor, they already call you and ask you what is going on, they ask why are you working so slowly, because you have to do it faster, to avoid keeping donors waiting too long in the line. (A- Platelets)

> My activities are in the clinical screening of donors. Every day here is the same thing: I arrive, open the room, clean the screening room, access the screening on the computer and start screening. Some days I don't have time to leave the room because there are a lot of people to donate and few professionals. Other days there are people to screen and not enough staff in the collection room. (B+ Platelets)

Even in situations that could hamper the development of the nurse's work in hemotherapy, it was possible to perceive that the professionals who work at the institution are very fond of what they do and try to provide the best assistance with the instruments available for the job. In addition, they are professionals committed to their work and they feel the need to know more and to be aware of the evolutions of knowledge in the area. The desire for opportunities to learn, beyond the objective of improving the quality of care provided, is expressed in the speeches of professionals and constitutes the fifth ingredient of competence.

> We work according to our conditions. It's good, but it could be a lot better; I wanted to know more, I wanted to know the whole process from donation to transfusion, I wanted to take courses, but so far here at the institution I did not have the opportunity, so I'm looking for this outside, because I know I need to know more in order to work better. I chose to work here, so I have to dedicate myself to what I do. (O+ Plasma)

> The work done by the nurses is very good, I can see that many of them are dedicated to hemotherapy and seek knowledge. Most of them are very fond of the work they do, they get involved in the activities, they work with a lot of love and dedication and always try to do the best according to what they have. (A- Platelets)

The activities carried out in the clinical screening of donors are developed in an individual way; however, the collective character of the work performed by the team was identified in all sectors studied. Some professionals reported that the demand of work in clinical screening, especially because of the disproportionate amount of activities to be developed by each professional, is a situation that generates conflicts in the team. However, according to these reports, everyone in the team seeks to provide the best assistance. They try to be involved in the activities proposed, both in the care of the users and in the training of other professionals, including in other institutions, always seeking to improve patient care in this specialty. This collective character of the work process refers to the concept of the sixth ingredient of competence.

#### DISCUSSION

The work processes of nurses in hemotherapy include diverse activities that are based on their own legislation and specific knowledge and that require the necessary skills to guarantee the quality of products and of the assistance to patients. As the work involves social demands, the purposes and the activities are performed by individuals in a changing context, despite the prescribed rules; therefore, each activity will be unique, although they may be similar<sup>(10)</sup>. Ergology analyzes the work, understanding that it is formed by values, and that each individual makes its own history. In this context, the instruments, the knowledge and the values are also part of the structure of the professional's activity, since it considers the human being as integrated into the environment, and in this movement between work and people, the work is always understood as something singular<sup>(12)</sup>.

It is not possible to determine a list of competences recommended for a particular job. However, competent actions imply a combination of ingredients and these ingredients of competence are important to guarantee the quality of the work that is performed<sup>(13)</sup>. It is important to highlight that the professional practice is also made of choices, and that these are influenced by the individual's unique values and knowledge<sup>(12)</sup>.

When associating Ergology and the work of the nurse, it is possible to perceive that, to work in hemotherapy, the workers must possess the knowledge and understand the procedures and techniques. The nurse must master the knowledge necessary to perform a task, which is the knowledge acquired in their education, referring to theoretical gualification and identifiable knowledge, previously stored and decontextualized. This first ingredient establishes and measures the degree of appropriation of knowledge regarding experimental protocols. It anticipates sequences and neutralizes the circumstantial aspect of the work. It is supported by the power it has, in contrast with the hypothesis of negation of all historical influence, which would cast doubt on the validity of the models that anticipate reality. These antecedent norms are identifiable knowledge and can be stored and systematized, since they represent a list of the conditions necessary to exercise different professional activities<sup>(5)</sup>.

Thus, nurses must master both the general knowledge of the profession and the specific knowledge of their area to carry out their activities in a satisfactory manner. In this regard, it is important to emphasize that the studies on hemotherapy are still incipient in undergraduate nursing courses, so the specific knowledge in the area does not yet include the necessary knowledge for the work. The hiring of nurses with little or no experience in hemotherapy is a characteristic present in public contests and selection processes organized to select nurses, independent of their specialty. Thus, given the specificity of the area and the incipient training courses, many national and international health institutions carry out continuing education programs within the health institutions, seeking to enable professionals to improve the quality of services<sup>(8)</sup>.

Thus, one of the ingredients necessary for efficient actions in hemotherapy is the mastery of knowledge, otherwise it is necessary to train the professionals before they can perform their functions. In this case, the norms of the work in hemotherapy are clear when they state that professionals should only work in hemotherapy services after being trained, in order to ensure competent, resolute and safe nursing care<sup>(2)</sup>.

Health care delivery is becoming increasingly complex and fragmented, so interprofessional collaboration is an efficient and essential alternative to improve health care. The inclusion of interprofessional education in the health professions can help reduce these barriers. Therefore, it is an option for professional training in hemotherapy, as it can include all the knowledge necessary for professionals in the areas involved<sup>(14)</sup>.

In addition to theoretical knowledge, knowledge on dayto-day practices is also important. It refers to the historical incorporation of the work situation, the practical qualification, the knowledge gained through the experiences of the professionals. It is a complex competence, as it is specific and difficult to formulate. And it is singular due to the local collective habits when dealing with the unforeseen. This competence is difficult to verbalize, and also difficult to transmit. It requires time for incorporation and, as it is constructed during the situations, it requires cooperation from those who know the work. Due to its specific forms of storage, incorporation and appropriation, this type of knowledge that generates competence tends to be based on the interaction with the particular environments of life and of work<sup>(15)</sup>. It means that there is freedom, even if it is limited by the inescapable constraints perceived by all; but it also means that there is no single good way of doing things. There are always choices to make, even if they are minor<sup>(16)</sup>.

In clinical screening and donor and recipient care, the time of experience is important for the quality of the service. In the studied institution, most of the professionals are experienced; however, involving them in activities in the different areas of the hemotherapy service is an important factor to improve even more the quality of the service provided<sup>(17)</sup>.

The ability to associate the domain of knowledge about work and the experiences lived in the practice of the profession includes the capacity and propensity to establish a relation between what is prescribed and what is experienced through the renormalization of work<sup>(5)</sup>. On this regard, it is important to emphasize that professional training also occurs during the exercise of work activities, and this produces differences in the work of each professional and differences between the prescribed work and the real work. Therefore, when performing the work, the nurses uses their selves, their values, customs, knowledge and engage their own bodies, which, in interaction with the environment, lead to constant production of new knowledge<sup>(18)</sup>. The workers are called in the debate of norms and are encouraged to use their selves constantly, since they are inserted in complex scenarios such as health institutions. This demonstrates that the environment is always unfaithful. They use their selves for others, since these scenarios have norms, prescriptions and values that are historically constructed<sup>(10)</sup>. In Ergology, the environment and the activity are always singular, and the "environment is always a little unfaithful". It never repeats itself exactly from one day to the next, or from one working situation to another<sup>(19)</sup>.

The limited knowledge of some professionals at the blood center is an important gap that must be resolved. This gap in the knowledge of the whole and its repercussion in the mastery only of part of a process can influence the expected result, given the characteristics of the hemotherapy, which has processes that start in the blood collection and end in the blood transfusion. Ignorance of the whole leads to the loss of the sense of totality of the work process, distance from the work object and, even more, distance from the purpose of the work, which can have negative impact on the quality of the service performed.

Even so, some nurses will always master the dimension of norms, while others will master the dimension of practical experience. In the interpretation of the theoretical framework of ergology, it is not necessary to hide new actions when they are related to the common good, which defines renormalization. Creating or doing things differently is not wrong; also, the mastery of norms or techniques, is not enough; there will always be knowledge that is metabolized by life, prescribed or anticipated. Professional action requires dialectical articulation between acquired knowledge, experience and values; this triad guides choices in the midst of work relations<sup>(20)</sup>.

The debate of values, associated to the debate of imposed and instituted norms, is related to this necessary involvement in the work, which is never determined only by rules or by the objectives of the work managers. It is attributed to the work itself, which determines the worker's involvement with the task to be performed. Competent actions depend a lot on what the environment offers the person, as a space for the development of their potential<sup>(5)</sup>. The lack of adequate conditions to carry out the work is closely related to this ingredient, since professionals experience complex situations due to difficulties with materials, equipment and structure necessary for the work. According to the theorists Schwartz and Durrive, the transgressions of the studied professionals are seen as natural, since their work requires balance between doing activities according to norms and according to their values, and to the organization and the collective. Necessary transgressions certainly sought to make the work safer, protecting all involved<sup>(20)</sup>.

The work overload also compromises the work performed, since it hinders the development of activities according to what the professional understands as "with quality" and causes negative renormalizations due to the necessity of the service. Nursing care may become deficient due to working conditions, which may lead the nurse to act in a mechanized way, increasing the possibility of errors in care provided; in addition, there may be consequences for the health of the professional and feelings of dissatisfaction<sup>(21)</sup>.

Investment in professional qualification is a sine qua non to improve the work processes and to increase the satisfaction of the workers and of the users of a service, considering the peculiar characteristics of the nurses in hemotherapy. The desire for greater quality in the work, the strength of the motivation to know and the desire for developing knowledge and skills are conditions perceived as a necessity of the nurses of the studied institution, considering the complexity of the demands arising from the evolution of hemotherapy and their commitment to the users of the service. It is important to emphasize that training is a key element for professionals to provide adequate assistance<sup>(17)</sup>.

Collective work demands engagement of the subject, who should consider the work environment as their own environment. This generates greater use of their technical skills in their activities and more agility in the resolution of problems. The quality of the collective interactions and the connection with the others give a global sense to the individual action/collective work and are necessary factors to ensure that the diverse ingredients of the competence complement each other; this implies evaluating oneself, their competences and those of their colleagues, in order to adjust the collective strategies of action<sup>(8)</sup>.

#### Limitations of the study

As limitation of this study, we highlight the lack of previous research on this topic under this theoretical perspective.

# Contributions to the areas of Nursing, Health, or Public Policy

It is an important tool for other hemotherapy services, as it presents highly significant results to improve the understanding of the work process developed by the nurses. In addition, it allows understanding the elements necessary to work in the area, contributing to the success of hemotherapy processes.

#### FINAL CONSIDERATIONS

This study revealed that, regardless of the area of work in hemotherapy, whether in clinical screening, in the collection room, with the transfusion patient or even in the management of hemotherapy activities, competent action requires mastery of theoretical knowledge, both regarding general knowledge of the profession and specific knowledge of hemotherapy. In addition, it requires knowing how to associate this knowledge to the experience gained through the practice of the profession. The experience acquired is decisive in this process and, the more experienced the professional, the greater the chances of success in decision making. In addition, the constant search for updating knowledge and teamwork skills favors competent action and creates a scenario of safe practices.

The work of the nurse is marked by unforeseen situations, which provide opportunities and require fast clinical reasoning, through the intelligence gained with the practice with unexpected events. All the activities performed by the nurse in hemotherapy require technical reasoning, initiative, responsibility and decision making, all necessary to guarantee the quality of the service provided, which will only be achieved if the professionals act with competence.

It is important to emphasize that competent actions are influenced by the working conditions. Mastery and skills in work relations are not enough if the nurse does not have the human resources, materials, equipment and/or adequate structure to carry out the activities. Therefore, the impositions of the service itself can provoke negative renormalizations that frustrate and discourage the nurse and, consequently, lead to low professional efficacy. To guarantee the quality of nursing care, it is necessary to analyze not only the qualification of the workers, but also the quantification of these factors necessary for the development of the activities.

The professional training process seeks to prepare professionals to practice the profession; however, it does not efficiently prepare nurses to deal with the relational and interpersonal aspects of teamwork. Often the activity itself makes the work fragmented and individualized, as is the work developed by the nurses in the clinical screening of the institution studied. This way, investing in the qualification of the teams, with technical preparation and development of skills of organization of assistance processes, teamwork, leadership, communication and empathy among team members and with patients and their families can be an alternative to ensure the quality of the care provided to blood donors and recipients.

Thus, the results of this study provide important information about the nurse's competence profile for working in hemotherapy, allowing the implementation of training strategies and creation of a proposal for the development of these competences, focusing on the excellence of the activities developed and the safety of the patient and the blood donor.

#### FUNDING

The present work was supported by the Coordination for the Improvement of Higher Education Personnel – Brazil (CAPES) –Financing Code 001.

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