

## **RENORMALIZATION OF THE NURSES' WORK IN HEMOTHERAPY: BETWEEN PRESCRIPTION AND REALITY**

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### **ABSTRACT**

**Objective:** to characterize the work process of nurses in hemotherapy in terms of prescribed procedures, antecedent norms and real work.

**Method:** a qualitative study, carried out from February to December 2017, in a blood center in the North of the country, involving a sample of twenty-two nurses. Methodological triangulation with data collected through semi-structured interviews, institutional documents and protocols, participant observation and notes in a field diary were used. For data treatment and analysis, the resources of the Atlas.ti 8.2.1 software (Qualitative Research and Solutions) and the fundamentals of Historical Dialectical Materialism and Ergology were used.

**Results:** the results showed that nurses work in different activities, recreating work according to the needs of the service. The assistance, educational and managerial work permeates the activities developed and is carried out in accordance with the legislation, seeking to guarantee the donor's health, the quality of the products and transfusion safety.

**Conclusion:** the work situations of these professionals indicate that its uses are present in their daily lives, promoting dynamism between the previous norms and the renormalizations.

**DESCRIPTORS:** Blood transfusion. Blood donors. Hemotherapy service. Nursing assistance. Work.

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## RENORMALIZAÇÃO DO TRABALHO DO ENFERMEIRO EM HEMOTERAPIA: ENTRE O PRESCRITO E O REAL

### RESUMO

**Objetivo:** caracterizar o processo de trabalho dos enfermeiros na hemoterapia quanto aos procedimentos prescritos, às normas antecedentes e ao trabalho real.

**Método:** estudo qualitativo, realizado no período de fevereiro a dezembro de 2017, em um hemocentro na região norte do país, envolvendo uma amostra de vinte e dois enfermeiros. Foi utilizada a triangulação metodológica com dados colhidos através de entrevista semiestruturada, documentos e protocolos institucionais, observação participante e anotações em diário de campo. Para o tratamento e a análise dos dados, foram usados os recursos do software Atlas.ti 8.2.1 (*Qualitative Research and Solutions*) e os fundamentos do Materialismo Histórico-dialético e da Ergologia.

**Resultados:** os resultados evidenciaram que os enfermeiros atuam em diferentes atividades, recriando o trabalho de acordo com as necessidades do serviço. O trabalho assistencial, educativo e gerencial permeia as atividades desenvolvidas e é realizado de acordo com as legislações, buscando garantir a saúde do doador, a qualidade dos produtos e a segurança transfusional.

**Conclusão:** as situações de trabalho desses profissionais apontam que os usos de si se fazem presentes no seu cotidiano, promovendo o dinamismo entre as normas antecedentes e as renormalizações.

**DESCRITORES:** Transfusão de sangue. Doadores de sangue. Serviço de hemoterapia. Assistência de enfermagem. Trabalho.

## RENORMALIZACIÓN DEL TRABAJO DEL ENFERMERO EN HEMOTERAPIA: ENTRE LO PRESCRITO Y LO REAL

### RESUMEN

**Objetivo:** caracterizar el proceso de trabajo del enfermero en hemoterapia en relación a procedimientos prescritos, normas antecedentes y trabajo real.

**Método:** estudio cualitativo, realizado de febrero a diciembre de 2017, en un banco de sangre de la región norte del país, con una muestra compuesta de veintidós enfermeros. Se utilizó triangulación metodológica con datos recolectados a través de entrevistas semiestructuradas, documentos y protocolos institucionales, observación participante y notas en un diario de campo. Para el tratamiento y análisis de los datos se utilizaron los recursos del software Atlas.ti 8.2.1 (*Qualitative Research and Solutions*) y los fundamentos del Materialismo Histórico Dialéctico y la Ergología.

**Resultados:** los resultados mostraron que los enfermeros trabajan en diferentes actividades y recrean el trabajo de acuerdo a las necesidades del servicio. La labor asistencial, educativa y gerencial atraviesa las actividades desarrolladas y se lleva a cabo de conformidad con la legislación, a fin de garantizar la salud del donante, la calidad de los productos y la seguridad transfusional.

**Conclusión:** la situación laboral de estos profesionales indica que los usos están presentes en su cotidianidad, y promueven el dinamismo entre las normas antecedentes y las renormalizaciones.

**DESCRIPTORES:** Transfusión de sangre. Donantes de sangre. Servicio de hemoterapia. Cuidado de enfermería. Trabajo.

## INTRODUCTION

The role of the nurse in specific hemotherapy activities requires scientific knowledge and the ability to make an immediate decision, both in the care of the blood donor and in the nursing care for the recipient of blood products<sup>1</sup>. Therefore, the Federal Nursing Council, through Resolution 0629/2020, published the technical standard that establishes guidelines for the performance of nurses and nursing technicians in hemotherapy, in order to ensure that nursing care is competent, resolute and safe for the patient or donor. The normative text detailed the professional skills in blood collection and blood transfusion procedures, emphasizing the need for training of the professionals working in the area.<sup>1</sup> This technical standard favored changes in the work processes of the professionals involved.

In health, the work process is contemplated by different professionals, including the work of the nurse. This nursing work encompasses four dimensions: care dimension, which includes care for individuals or groups; educational dimension, consisting of education and professional training processes; managerial dimension, which comprises the activities of administration of nursing work, in addition to participation in the management of health care; and investigative dimension, referring to the production of scientific knowledge capable of founding and guiding work processes in the other dimensions: care, management and education in health.<sup>2-3</sup>

In this perspective, considering the four dimensions of the nurse's work process, the training of the professionals, the workers' routine and the experiences they have experienced, this study aims to characterize the work process of nurses in hemotherapy regarding the prescribed procedures, previous norms and real work. To achieve the objectives, it is sought to understand the nursing work process through the Theory of Historical Dialectical Materialism associated with Ergology.

Historical Dialectical Materialism allows for the approximation with the study object through the understanding of mediations and correlations. Ergology highlights the subjectivity of workers, values, customs and experiences during the execution of the activities. These elements, which separate real work from prescribed work, show that work, as well as all human activity, will never be a mere application of rules, as it will involve the subjectivity of the workers, providing the opportunity to produce new knowledge.<sup>4</sup>

Research studies on the work of nurses in hemotherapy are still incipient, and the understanding of the work process from the perspective of historical and dialectical materialism and ergology is an approach that has not yet been explored in this area. Therefore, the theoretical contributions of this study envisage expanding knowledge about the work process of nurses in hemotherapy, based on updated scientific production capable of sustaining the work process of nurses in all areas of activity, guiding them with a focus on the quality of the products and on the safety of those involved.

## METHOD

This is a research study that uses the qualitative approach, guided by Historical Dialectical Materialism and Ergology. Historical Dialectical Materialism makes it possible to relate the data found with the phenomena in transformation in Nursing, while Ergology approximates the work done, allowing for reflection through the experiences, which considers the required skills, the prescribed activities and the conditions that proposed by the environment.<sup>5</sup>

The research was carried out in a reference blood center in hematology and hemotherapy, located in the North of Brazil. The study included 22 nurses who met the following inclusion criteria: being a nurse working in hemotherapy and having a minimum professional experience of 6 months at the institution. During the collection period, the total number of nurses was 28 professionals.

For data collection, a triangulation of sources was chosen: documentary, observation and interview. Documentary collection allowed knowing what is prescribed about the work of nurses in

hemotherapy, that is, how this work should be according to current legislation and what is determined in the institution's own procedures. The following documents were identified and analyzed: Consolidation Ordinance No. 5 of September 28<sup>th</sup>, 2017 - It redefines the technical regulation of hemotherapeutic procedures; Resolution RDC/ANVISA 34 of June 11<sup>th</sup>, 2014 - Good practices of the Blood Cycle; Joint Ordinance MS/SAS 370 of May 7<sup>th</sup>, 2014 - Transportation of blood and components; Guide for Hemovigilance in Brazil, 2015; Guide for the use of blood components, 2015; COFEN Resolution 0511/2016 and 0629/2020.

The interviews were conducted with the aim of identifying the activities developed by the nurse and knowing how the work is carried out, through the description of the activities carried out on a daily basis, as well as the use of legislation and other documents that guide the activities. The script consisted of 3 questions: 1) Describe the activities you perform in your day-to-day work; 2) Do you apply the current legislation for the hemotherapy service in your daily practice? Which laws? Cite examples; 3) How do you evaluate the service performed by the nurses in your workplace? These questions were asked in the institution under study, according to the participant's availability, and the semi-structured interview technique was used. They were audio-recorded, individually, by the researcher, and had a mean duration of 45 minutes.

Participant observation was carried out with the aim of verifying whether the nurses develop their activities according to the institutional protocols, observing all the items contained in the documents. For that, a participant observation script was used, created from the analyzed documents, which served to guide the observation carried out, containing all the necessary steps to perform the specific procedures of the specialty. The field diary was used as a data collection instrument. The researcher followed what the activities developed by nurses on different days of the week and work shifts were, according to the availability of the service, and how these activities were developed. In the blood cycle, the observation was carried out only during the day, considering that the service only works during this shift. In the ward, it was during the day and night shift. The mean observation time per professional was 4 hours. All 22 professionals were observed. Data was collected from February to December 2017. The interviews and observations were read and coded, following what is proposed in Content analysis.<sup>6</sup> For the identification of the participants, the product names and blood typing (Plasma, Platelets, Red blood cells) were used and, afterwards, inserted in the Atlas.ti 8.2.1 software (Qualitative Research and Solutions). The data were organized into four categories of analysis, according to the dimensions of the nursing work, and analyzed according to the theory of Dialectical Historical Materialism and Ergology.

The assumptions proposed by the COREQ (Consolidated criteria for qualitative research reports) instrument were used.

The project was approved by the Research Ethics Committees of the *Universidade do Estado do Amazonas* and of the *Fundação Hospitalar de Hematologia e Hemoterapia do Amazonas*, respecting Resolution No. 466/2012, which deals with standards for research with human beings.

## RESULTS

A total of 22 professional nurses were interviewed. Of these, thirteen worked to assist the donor and nine to assist the recipient of blood products. The Nursing training time ranged between 3 and 32 years, with 17 professionals having more than 10 years of training and two, less than five. Regarding their working time at the Blood Center, four nurses had worked for less than five years and one had 27 years of working experience in the institution. Some professionals, who are currently nurses, have already worked at the institution in other activities in the health area. Regarding training in the area, only four professionals had a specialization in hemotherapy. The other professionals were specialists in other areas of activity and four had no specialty. As it is a public institution, most of the

professionals (19) were awarded a tender, two were scholarship holders and one was a temporary civil servant.

Regarding the hemotherapeutic activities, it was identified that these professionals acted both in donor care and in patient care. Therefore, to facilitate understanding and favor the discussion of the results, the professionals will be presented in four dimensions - care dimension, educational dimension, managerial dimension and investigative dimension -, following the chronological order of events in the blood cycle, according to the bibliographies studied.

In the care dimension, it was identified that the nurse performs several care activities, both with the donor and with the recipient of blood components. In activities with the donor and recipient, the most frequently performed procedures are clinical screenings and blood transfusions with the recipient.

In clinical screening, care activities are aimed at investigating the health status of the candidates for donation, with the aim of identifying whether or not they can donate blood, thus minimizing the risk of harms to the recipient of blood products. To carry out the clinical investigation, the nurse assists the candidate for donation in a private room, with the help of a questionnaire designed for this purpose, with vital signs and the result of the hematocrit test being measured and analyzed.

*[...] Here at the screening, I do the donor screening. I see if they are able or not to donate blood. For this, I apply the questionnaire, the interview from the clinical screening form, check blood pressure and pulse and talk to the donors, seeking to know about their behavior and health situation. I also give guidelines, clarify doubts that the donor has (RBCs O+).*

During clinical screening, the nurse performs anamnesis and a superficial physical examination in order to obtain evidence about the candidate's health status. Behavioral and sexuality issues are also investigated. When there is lack of consistency and contradictions in the donor's answers, the nurse seeks different kinds of approaches to conclude the clinical reasoning and decide on the candidate's aptitude or not. The self-exclusion vote given to the donors during screening represents another way to offer the donors the opportunity to record that their blood should not be transfused into another person; however, the collection and testing process occurs normally. In relation to this, the observation made it possible to identify that the self-exclusion vote is not given to all donors, since guidelines are usually given to those who are donating for the first time.

*[...] Today I can already identify in the person's way of speaking, in the way they looks at me, I know when they are omitting information. And when I see that they don't speak, I reinforce the questions, expose the importance of them telling the truth, the importance both for them and for those who are receiving the blood, because they can harm someone. I do a drama so that they can speak the truth and be aware that they cannot donate. This experience we will acquire over time. Sometimes, I even called colleagues to help. I also use the self-exclusion vote, I read to them, explain, then, I am very calm because it will be on their conscience whether they will donate or not (Plasma O+).*

Although screening is decisive for guaranteeing product quality, it was possible to identify that the professionals often fail to carry out a thorough investigation due to the number of candidates to be screened. When there are many people to serve and few professionals, the nurses perform clinical screenings faster, with questions not being deepened and becoming generic.

*[...] If there are a lot of people in line, I do the sorting really fast. I even worry about the quality of the screening, because we need to screen very quickly to handle everything (Plasma O-).*

In the collection room, the nurse's work takes place in a team, composed of hemotherapy technicians, nursing technicians and interns. The main activities carried out are related to donor care, referring to venous access and donor assessment after collection, including care in cases of adverse reactions to donation. In addition to these, nurses are also concerned with biological risks, and their work seeks to follow what is recommended in the biosafety rules imposed by the institution.

[...] *When we stay in the collection room, we have many activities: see if there is a professional for assistance, check the issue of blood storage, check the temperature of the environment and the thermal boxes where the blood is at rest, puncture the donor when the technicians are unable to, evaluate the blood flow and take care that there is no flat bag, also prepare the room for cases of emergency care, because if there is a donor feeling sick we have to assist. So, you need to have all the necessary support organized. In the collection room, I work hard. We get involved with everything that happens there. It is a very responsible job (Platelets AB-).*

Adverse reactions to donation occur frequently and immediate care is initiated by the nurse. The medical professional is called according to the severity of the reaction. The behaviors adopted by the professionals in the face of the reaction are diverse, with each doing what they think to be resolute at that moment.

Another procedure performed by the nurse is blood collection by apheresis. It is a hemotherapeutic procedure that allows separating a blood component from the body, being carried out through the use of automated equipment. It can be performed for therapeutic purposes in sick patients or to donate some blood component. Therapeutic aphereses performed by the professionals, as they are performed in other hospital institutions, were not followed up.

Regarding care with the blood products, the concern of the professionals in keeping the products stored in accordance with the specifications recommended in the legislation of hemotherapy can be observed.

Regarding the transfusion procedure, it was observed that the professionals perform the procedures following the recommendations in the standard operating procedures, designed with the aim of guaranteeing quality of care. There are important precautions reported by the professionals about patient safety in this procedure.

According to the interviewees, transfusions are performed with technical rigor, aiming to protect the patient from the risks inherent to the procedure. The previous interview with the patient is crucial to identify any risk of transfusion reaction.

[...] *In transfusion, when there is a patient who is going to transfuse, we need to first evaluate the patient before the transfusion, check the clinical conditions of that patient. In fact, we perform the SAE and if everything is in order we start the transfusion. Of course, before that we need to have checked the vital signs and made all the necessary records in the pre-transfusion time. The vital signs are also checked during and after transfusion. We have a form that must be filled in with all the data that are necessary for the transfusion. These records are important to ensure patient safety, not to mention that we have the routine of double-checking, where two nursing professionals check, check everything, so that there is no mistake. And, after the blood is installed, if the patient is well, just wait for the procedure to finish and complete all the activities (RBCs AB-).*

The work experience in the transfusion and hospitalization wards is important to guide the activities. Often, the nurse identifies that the patient presents potential risks for developing a transfusion reaction but, due to the need to perform the procedure, the professional seeks technical alternatives to minimize the consequences and provide adequate assistance. If necessary, these professionals also complete the transfusion reaction investigation form and collect the sample to send to the laboratory for analysis.

[...] *We also filled out the transfusion reaction notification form, collected the samples, described the signs and symptoms and everything the patient presented at the time of the complication (RBCs +).*

The observation and interviews carried out made it possible to identify that patients who undergo transfusions receive detailed information about the procedure and the risks that the procedure may cause. In addition, they are instructed on the signs and symptoms suggestive of a transfusion reaction, as well as on the conduct in case of any suspected reaction. Frequent patients do not receive the same guidelines.

[...] *When you install, here the environment is small, so I keep visualizing. We inform the patients that if they feel anything, pain at the puncture site, chills, itching. It is to notify us immediately so we can take action, call the doctor, close the transfusion right away, open the serum and call the doctor right away, informing what is happening. Many are old patients, there is no need to guide them anymore (RBCs AB+).*

Regarding the educational dimension, the activities to orientate candidates for donation, donors, unfit donors, donors with positive serology, donors for apheresis, patients with indication for transfusion and patients with indication for therapeutic bleeding were identified.

[...] *And we also provide guidance for donors who are not fit, in terms of weight, irregular hematocrit and all other causes that may make the donor unfit. We also provided guidance to suitable donors, usually in the collection room. Sometimes, we send donors for medical consultation too, but this is in the cases of disability of those who are already old donors, so that they can do new tests and check their health status (Platelets A-).*

[...] *In addition, I also give lectures in the waiting room. These lectures are guidelines that I give to people who are waiting for assistance (Platelets AB-).*

In the educational dimension, training and qualifications carried out with professionals were also considered.

[...] *We also provide training, both for novice nurses and for other professionals, from doctors to hemotherapy technicians (Platelets A+).*

The observation of the activities performed by the nurses showed that there is constant concern with the update courses, hemotherapy legislation and the technologies used.

[...] *I know little about the blood cycle process. I wanted to take a specific course to be more skilled in the service, but I haven't had the opportunity yet. I wanted at least one training course, even on the Internet it is difficult. I feel the need for something more specific. Here, I think there is no one who specializes in hemotherapy, but there was a need for someone to be able to better guide, base our decisions. Sometimes, I feel insecure to decide what to do, then sometimes I ask my colleague (Plasma B+).*

The professionals' reports regarding training and qualifications showed weaknesses, since they are not able to meet the need for knowledge required to perform the work activities.

The management of the activities performed by the nurse in the studied blood center was identified in the entire work process of the nurse in the blood cycle. Management of the screening services, inpatient and transfusion wards, and coordination of transfusion agencies are carried out by nurses. These professionals carry out various administrative and managerial activities associated with care and educational activities.

Nurses carry out supervisory activities for both nursing professionals and other categories. Most of the workers in the collection room are hemotherapy technicians and interns from the undergraduate Nursing course.

[...] *When I am in the collection room, I am in charge of everything that happens in the sector. There the work is more extensive. I arrive, check if the employees have arrived, the scale, the material, if the other nurses who work in the screening room have arrived, I organize the material for urgency and emergency cases in the collection room and the material that goes to external collection (RBCs O+).*

Another important activity in the blood center, in view of the important technological advances, is the participation of nurses in the acquisition of materials and equipment used in hemotherapy.

[...] *I also manage the equipment issue, about corrective and preventive maintenance. I make purchase requests, prepare a basic project for the services I need, monitor and certify invoices for the purchase and acquisition of materials and equipment, and other day-to-day bureaucratic services that I always have, it never ends and neither it is little (Platelets AB-).*

The work of the nurse in the management and coordination of the transfusion agencies was also evidenced. In the blood center, there is a nurse who acts as a link between the hemotherapy service and the hospital institutions. This professional carries out his activities seeking to bring the services of hospital institutions closer to the blood center, in addition to seeking the improvement of services and the updating and qualification of the professionals involved. He is the reference of the external service in the blood center.

Regarding the investigative dimension, there was no report. However, it was observed that two professionals are doing *stricto sensu* post-graduation, and they are precisely those involved in research studies at the blood center.

## DISCUSSION

Regarding the characterization of the participants, it is considered relevant to point out that, among the 22 participants, only four professionals had specific expertise in hemotherapy. Their practices occur in accordance with specific technical legislation and standard operating procedures, which guide and direct the work of nurses, as well as their experiences and interpretation in relation to what is prescribed. Workers active subjects and participants in their work; therefore, they will not develop their activities as prescribed only, but according to practical knowledge, subjectivity, beliefs and acquired values.<sup>7</sup>

Clinical donor screening is an activity that requires clinical reasoning, the ability to perceive and interpret donor behavior, in addition to emotional preparation in the face of all reports that may arise. It is a phase of the blood cycle in which the nurse assesses and investigates the donation candidate to identify health conditions and the possibility of donation according to the clinical history.<sup>8</sup>

Care actions in clinical screening occur by understanding the individuality of each person and the interaction between the donor and the nurse. They are important in the donation process and represent an empathetic attitude, both by the donor and by the professional involved in the care process.<sup>9</sup> The dialog between the nurse and the donor provides discussion about reality, the way of thinking about their position as a citizen and their commitment to society. Nurses are the main actors in the blood donation process, establishing a bond with the donor, welcoming, clarifying doubts and guiding.<sup>10</sup> For the donors, the nurse who assists them is the reference in the blood donation process.

Participant observation and the analysis of the interviews allowed identifying that the modalities of assistance in the screening room vary a lot according to the candidate's profile. For example, a frequent donor's service time is much shorter than that of a first-time donor, as the frequent donor already has knowledge about the donation process, while the donor who seeks the blood center for the first time needs to know and be guided on the whole process. This evidence constitutes the renormalization of work, in which the professional makes adjustments according to needs, adapting the way of working to the reality experienced.

Renormalizations are part of the work of these professionals and are developed as the professional makes use of them for work activities, which are no longer composed only of formal knowledge. Experience and professional training also stand out, a fact that produces distinctions in the work of each worker, causing the distance between the prescribed work and the real one.<sup>4</sup>

The development of the work, as it is carried out, takes on certain historical forms arising from the mode of production, that is, according to the production instruments, according to the production relations and the social relations established.<sup>4</sup>

The statements of the professionals show that the nurse in the clinical screening of this institution has a demand for work that may be weakening the quality of the activities performed, in addition to compromising the motivation of the donor for the gesture of solidarity. According to the interviewees, the number of professionals and/or users changes the way they carry out the work,



mainly the investigation, which is no longer judicious and becomes general and superficial, which can compromise the quality of the blood and the safety of the recipient.

About this, the legislation is clear when it states that donation candidates must be informed, in a clear way and with language that can be understood, about the entire donation process, the destination of the donated blood, the dangers associated with the donation, and the exams that will be performed on the blood to detect infections.<sup>8</sup> The moment the nurse omits this information, the result of the donation process is compromised. It is necessary for the donors to be aware of their responsibility in this process and to be investigated in all possibilities that could compromise both their own health and the health of the recipients of blood products. Experience in the clinical screening work routine, although it favors the interpretation of some evidence, is not enough to guarantee the quality of the products. In addition, donor loyalty is also adversely affected if donors do not receive a good service at all stages of the donation process. The waiting time, the lack of attention and the establishment of a bond in the screening room are demotivating factors for an upcoming donation.<sup>10</sup>

Nurses in hemotherapy services should encourage the team to provide systematic care, guide, motivate and promote the continuing education of the team, in addition to disseminating public policies capable of encouraging voluntary blood donation, capable of sensitizing society.<sup>9</sup>

In the collection room, work is performed as a team and the nurse is responsible for all the activities performed, including other professional categories. In all the activities, the performance of the nursing team is necessary, whether in helping with blood collection, in monitoring vital signs, in constant observation of the donor or in assisting possible complications. Teamwork is essential for donor care, ensuring safe and quality assistance.<sup>9</sup> Lack of compliance with an assistance protocol in the collection room makes each professional acquire a different approach in the face of adverse reactions to donation.

In the wards, the most frequent blood therapy procedure is blood transfusion, present in all hospital institutions. It is a procedure under the responsibility of the nurse and requires specific knowledge, involving risks to the health of the patients.<sup>11</sup> In the institution under study, transfusions occur in the inpatient and transfusion wards, with the experience and skill of the professionals determining for the success of the assistance.

In order to perform the transfusion procedure, it is essential that the professionals have the necessary knowledge to guide the patients and clarify their doubts regarding the transfusion, reducing the concerns regarding the procedure.<sup>12</sup>

In the theoretical perspective of ergology, reflection on the experiences of professionals in the world of work is assumed.<sup>5</sup> Therefore, the production of the knowledge acquired in hemotherapy is also based on the knowledge and experience of the workers in the development of work, in addition to constant questioning about the norms.

The assistance to complications resulting from the transfusion is also part of the activities performed with the team, and the nurse plays a fundamental role in detecting signs and symptoms suggestive of complications, as well as in all patient care.<sup>13</sup>

Regarding the educational dimension, different activities were identified, both with candidates for donation, and with donors, unfit donors, donors with positive serology, donors for apheresis, patients undergoing transfusion, therapeutic bleeding and therapeutic apheresis. These activities are part of the daily duties of the professionals and are closely linked to care. The professional is unable to dissociate them, as guidance is the technical procedure itself.

Guidelines are as important for the giver as for the recipient. In order to perform the transfusion procedure, it is important that the professional has the necessary knowledge to guide the patient and clarify doubts regarding the transfusion, reducing concerns regarding the procedure.<sup>12</sup>

The professionals' reports also showed the importance of in-service training and the experiences acquired for carrying out specific activities, considering that, to work in the area, it is necessary to master the theme, which is still incipient in professional training courses. In Australia, the entire hospital staff involved in the transfusion must be educated to perform safe practices. Nurses play a fundamental role in planning, implementing and evaluating transfusion education, using different strategies to educate professionals about this procedure.<sup>14</sup>

In the managerial dimension, work is focused on the management of activities carried out in the blood center, elaboration of a scale, supervision of services, participation in the processes of acquisition of materials and equipment used in hemotherapy, reports, in addition to bureaucratic activities. All the managerial activities are carried out by specialist professionals and/or with experience in hemotherapy, who are familiar with the work process of the blood cycle. It is important to highlight the performance of blood center professionals in the management and coordination of transfusion agencies in hospital institutions, revealing a new field of action for nurses, still incipient, but in constant evolution.

The investigative dimension is still uncommon, needing to be widely explored in order to produce specific knowledge and with an impact on the performance of the professionals in this area. There is a gap between assistance and research Nursing, with most of the professionals from the health institutions involved in assistance, while research is carried out by those who are involved with college. In other words, it is a system of academic production and productivism that occurs since the training of professionals, given the significant concern about caring and managing.<sup>15-16</sup>

The role of nurses with expertise in hemotherapy, although relatively recent in hospitals and blood centers, is evolving with the aim of optimizing the proper use of blood components, reducing procedural risks and improving the transfusion practice in general.<sup>12-14</sup>

Renormalizations are part of the work of these professionals and are developed as the professional makes use of them for work activities, which are no longer composed only of formal knowledge. It is also noteworthy that the training of a professional occurs during the performance of their work, favoring the creation of differences in the way they are carried out, which differ from the prescribed and the real work.<sup>4</sup>

In all the dimensions, it is possible to recognize that the nurse's practice requires a dialectic of its use dramatics and the discussion between prescribed work and real work, to renormalize work and achieve greater autonomy in decision-making.

This study has limitations due to the fact that it was carried out only in a blood center and, therefore being a potential bias. In addition, the lack of previous research studies on the topic addressed in this theoretical perspective can also be pointed out as a limitation of the study.

## FINAL CONSIDERATIONS

This study shows itself as a way of looking at work in hemotherapy from the perspective of nurses at the researched institution. The interviews and observations allowed identifying that the work of these professionals occurs through its use in everyday situations, promoting action between the antecedent norms and the renormalizations.

It can be seen that the procedures and laws used in hemotherapy are important guides for the development of the activities but, in the practice, work is also carried out according to experience, values and working conditions, which modify the prescribed work.

The activities of nurses in hemotherapy contemplate the four dimensions of nursing care: caring, educating, managing and investigating. The demand in the care dimensions is greater and is closely linked to the education and management dimensions. The investigative dimension revealed that there is a rich field to be studied, with many possibilities for research, but that is still little explored by nursing professionals.

It also showed that the nurses' working conditions regarding the deficit of professionals, especially in clinical donor screening, can compromise product quality, as well as donor loyalty, in addition to causing the renormalization of work.

This study contributed to reinforce the thought that the professional training process is something that changes continuously and that professional experiences are capable of reformulating work and adapting it to needs. Nurses are fundamental professionals in the hemotherapy scenario, as they work with a multidisciplinary team, have many responsibilities in assisting the donor and recipient of blood products, and their actions are aimed at ensuring product quality and patient safety. It is a promising field in the health area.

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## NOTES

### ORIGIN OF THE ARTICLE

Extracted from the thesis - "Nurses' work process in the hemotherapy service: between the prescribed and reality", presented at the Graduation Program in Nursing of the *Universidade Federal de Santa Catarina*, in 2018.

### CONTRIBUTION OF AUTHORITY

Study design: Frantz SRS, Vargas MAO.

Data collection: Frantz SRS.

Analysis and interpretation of data: Frantz SRS, Vargas MAO.

Discussion of the results: Frantz SRS, Vargas MAO.

Writing and/or critical review of content: Frantz SRS, Vargas MAO.

Review and final approval of the final version: Frantz SRS.

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### APPROVAL OF ETHICS COMMITTEE IN RESEARCH

Approved in the Research Ethics Committee of the *Universidade Federal de Santa Catarina*, opinion No. 2,037,276, Certificate of Presentation for Ethical Appreciation (CAAE:). 65321717.2.3001.0009.

### CONFLICT OF INTEREST

There is no conflict of interest.

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