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Biological risk in nursing care among clients submitted to hemodialysis: a sociopoetic study

Riesgo biológico en el cuidado de enfermería junto a los clientes sometidos a la hemodiálisis: estudio sociopoético
Risco biológico no cuidado de enfermagem junto aos clientes submetidos à hemodiálise: estudo sociopoético

ABSTRACT

Objective: Analyze the imaginative dimension of the nursing professionals about the behavior regarding the risk of accidents with biological material in the care of the hemodialysis clients. **Method:** descriptive, used sociopoetics as theoretical methodological reference. After submitting Research Ethics Committee with the number CAAE 61649716.6.0000.5282 and approval by the Opinion Consubstantiated of the CEP No. 1.858.402; The data were produced in the Renal Vida Clinic Integral Assistance to the Renal, in six sociopoetic workshops, lasting two hours, held in April 2017 using the Dynamics of the Body as a Minimum Territory (DCTM) technique. **Results:** three analytical categories were delineated: - Risk inherent to the practice; How to protect myself; and Need to know. After the thematic categorical analysis, the data were described using sociopoetic studies: classificatory, transversal, and philosophical. **Conclusion:** The nursing team needs guidance on the importance of preventive actions (self-care), most of them have knowledge about biological risk and self-care, but this knowledge does not always translate into safe behavior.

DESCRIPTORS: Nursing; Renal Dialysis; Exposure at Biological Agents; Sociopoetic Study.

RESUMEN

Objetivo: analizar la dimensión imaginativa de los profesionales de la enfermería sobre el comportamiento frente al riesgo de los ácidos con material biológico sin cuidado junto a los clientes en hemodiálisis. **Método:** descriptivo, utilizó a sociopoética como referencial teórico metodológico. Después de la emisión Comité de Ética en la búsqueda con número CAAE 61649716.6.0000.5282 y aprobación por Parecer Consubstanciado del número CEP: 1.858.402; Los datos son producidos en la Clínica Renal Vida Asistencia Integral al Renal, en seis oficinas sociológicas, con dos horas de duración, realizado en abril de 2017 utilizando la técnica de Dinámica de Corpo como Territorio Mínimo (DCTM). **Resultados:** se delimitó tres categorías analíticas: - Riesgo inherente a la práctica; Cómo protegerme; y necesito conocer. Después del análisis categorial temático, los datos fueron descritos utilizando los estudios sociopoéticos: clasificatorio, transversal y filosófico. **Conclusión:** el equipo de enfermería necesita orientación sobre la importancia de las acciones preventivas (autocuidado), la mayoría posee conocimiento sobre riesgo biológico y autocuidado, pero no siempre ese conocimiento se traduce en comportamiento seguro.

DESCRIPTORES: Enfermería; Diálisis Renal; Exposición a Agentes Biológico; Sociológico Estudio

RESUMO

Objetivo: analisar a dimensão imaginativa da enfermagem sobre o comportamento frente ao risco de acidentes com material biológico no cuidado aos clientes em hemodiálise. **Método:** descriptivo, utilizou a sociopoética como referencial teórico metodológico. Após submissão Comitê de Ética em Pesquisa número CAAE 61649716.6.0000.5282 e aprovação Parecer Consubstanciado do CEP n.º 1.858.402; os dados foram produzidos na Clínica Renal Vida Assistência Integral ao Renal, em seis oficinas sociopoéticas, com duração de duas horas, realizadas em abril de 2017 utilizando como técnica a Dinâmica do Corpo como Território Mínimo (DCTM). **Resultados:** foram delimitadas três categorias analíticas: - Risco inerente à prática; Como me proteger; e Necessário conhecer. Após a análise categorial temática, os dados foram descritos utilizando os estudos sociopoéticos: classificatório, transversal e filosófico. **Conclusão:** a equipe de enfermagem necessita de orientação sobre a importância das ações preventivas (autocuidado), a maioria possui conhecimento sobre risco biológico e autocuidado, mas nem sempre esse conhecimento se traduz em comportamento seguro.

DESCRIPTORES: Enfermagem; Diálise renal; Exposição a Agentes Biológicos; Estudo Sociopoético.

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INTRODUÇÃO

The present study refers to an excerpt from the master's thesis presented to the Graduate Program in Nursing at the State University of Rio de Janeiro (PPGENF/UERJ), and the Philosophical, Theoretical and Technological Foundations are inserted in the Research Line of care in health and nursing, and in the Research Group Theoretical concepts for care in nursing and health - National Research Council (CNPq) and UERJ.

Here it stands out that the kidneys are double organs, located in the posterior portion of the abdomen. It is bean shaped and measures about 12x6 cm, weighing approximately 150g each, varying according to age, weight, and sex. The main functions of the kidneys are to filter the blood, participate in the control of body fluids and the hydroelectrolytic balance⁽¹⁾.

When the kidneys become unable to perform their functions, renal failure is established, which can happen abruptly, acute renal failure, or slowly and progressively, chronic renal failure; and depending on the stage and clinical manifestations, it becomes necessary to initiate renal replacement therapy (RRT).

The main parameter of laboratory evaluation, indication for the beginning of TRS is the clearance of endogenous creatinine, which should have a value equal to or less than 10 ml/min. In clients with diabetes and children, dialysis can be started with the endogenous creatinine clearance value equal to or less than 15ml/min⁽²⁾.

Customers undergoing hemodialysis (HD) with RRT are more likely to be infected with the HBV, HVC, and HIV viruses. However, for healthcare professionals, the risk of transmission of HBV and HCV viruses after a percutaneous accident is higher than HIV^(3,4).

It is estimated that each year there are about 66,000 cases of professional contamination by the hepatitis B virus, 16,000 by hepatitis C and more than 1000 cases of HIV in health professionals, after occupational exposure⁽⁵⁾.

Worldwide, approximately three million health professionals suffer injuries with occupational instruments each year, with approximately 2,000,000 exposures to the hepatitis B virus (HBV) and 1,000,000 to the hepatitis C virus - HCV⁽⁶⁾.

The highest index of occupational exposure is percutaneous, followed by cuta-

neomucosal. However, the one that exposes professionals to the greatest risk of contamination is percutaneous^(6,7).

The risk of exposure to these viruses is proportional to the handling of sharp objects and organic fluids, and the risk of acquisition after percutaneous accident is 1.8% for HCV, 6-30% for HBV and 0.3 to 0.5% for the human immunodeficiency virus - HIV^(4,8,9).

Customers undergoing hemodialysis are at high risk for HCV infection. The prevalence of anti-HCV antibodies is about 25% higher in individuals undergoing HD, whereas the prevalence of HBsAg antibodies is similar to that of the general population^(10,11).

However, the persistence of the HBV genome in clients with negative HBsAg is a possible source of transmission of the virus, which represents a risk for both HD clients and professionals⁽¹²⁾. Likewise, a small proportion of HCV-infected individuals, who have undetectable anti-HCV markers, constitute a diagnostic and epidemiological problem⁽¹³⁾.

Approximately 0.9% of all confirmed cases of hepatitis C virus infection in Brazil are likely to be caused by HD^(4,15), and the main correlation is

made with breaking universal precaution routines^(11,16).

The nursing team appears as one of the professions with the highest accident rates involving biological material. However, the number of professionals exposed is also significantly higher^(7,17). Probably due to the need for permanent contact with the client, in the different practice scenarios, and for this reason the greater risk of being directly exposed to biological material.

Work overload, lack of specific courses and unavailability of PPE are factors related to non-adherence to universal precautionary measures, as well as, the longer time practicing the profession, because these professionals received training courses for a longer time^(4,9). Confidence in manual skills and work routine favors the trivialization of existing risks. In contrast, the lack of knowledge and little professional experience can make it difficult to adhere to standard precautionary rules^(8,18).

Sociopoetics works with the imaginary, makes the research subjects co-researchers of the knowledge produced with the institutional researcher through the institution of its analytical device Group-Researcher (GP). It works the body as a source of knowledge, exploring the cognitive potential of sensations, emotion and gestures beyond imagination, intuition, and reason/intellect.

In this sense, through artistic research practices, it promotes creativity in learning, knowing, researching and caring for human beings; values the concepts and "confetti" (concept + affection, feelings) produced by the dominated and resistance cultures and emphasizes the spiritual, human and political dimensions of the construction of knowledge^(19,20).

In this article, Sociopoetic Theory and Philosophy was used to unveil the imaginary of nursing professionals who work in hemodialysis with the biological risk to which they are exposed in their daily work.

Understanding that it is essential to raise the awareness of health professionals

for the adoption of safe attitudes in the care of people on hemodialysis, we sought to answer the guiding question: How are biological risks and standard precautionary measures perceived by nursing professionals who serve clients on hemodialysis? In order to analyze the professionals' imaginative dimension about the behavior regarding the risk of accidents with biological material in care together with hemodialysis clients.

METHODOLOGY

The data were produced by the Researcher Group (GP) at a private renal care clinic located in the North Zone of the city of Rio de Janeiro-Brazil, in the period of April 2017, for 3 weeks. The instituted GP was composed of 10 participants (08 technicians and 02 nurses) who, after knowing the study proposal, accepted to participate voluntarily.

A study carried out on the sociodemographic profile of the nursing team indicates that it is made up of 77% technicians and assistants and 23% nurses⁽²²⁾.

The prevalence of nursing technicians is also justified by the very structure of dialysis services, which establishes that the minimum number of nursing technicians is one to four clients per dialysis shift and nurses is one for every thirty-five⁽²⁾.

Six socio-poetic workshops were held, lasting two hours, in which the fishery (research + course) was developed, whose theme was entitled: "Biosafety in Hemodialysis", in which the peculiarities related to the assistance provided in the sector and the risks to professionals are exposed to when performing it. After the course, the artistic research technique - Body Dynamics as Minimum Territory (DCTM) was applied to produce the data.

Regarding this research technique, it is noted that, initially, a sensitivity/relaxation dynamic was performed, to encourage the imaginary. Subsequently, the understanding of the word territory was discussed with the members of the GP so that the idea that our body could be conceived as a minimum territory was consensual.

Using this artistic technique, with drawing materials at their disposal, the participants made self-representative drawings, whose objective, a priori, was to make them interpret the drawings, showing how they see the possibility of having an accident and becoming ill during their professional practice and using the generator theme: How do I take care to prevent accidents with biological material? How do I perceive the co-worker using PPE?

After expressing their imagery from the drawings, the co-researchers answered the following questions: How do I take care to prevent accidents with biological material? What are my professional practices that can expose me to the risk of accidents with biological material? What preventive measures do I develop? What do I need to know to minimize the risks to which I am exposed? And how do I perceive the co-worker using PPE?

It should be noted that the participants in this study were presented with a Free and Informed Consent Form (ICF), to be signed, as determined by Resolution No. 466 of December 12, 2012, in compliance with the precepts of ethics, mandatory for research involving human beings. The project for this work was previously submitted to the Research Ethics Committee (CEP) of the University of the State of Rio de Janeiro (UERJ) with the number CAAE 61649716.6.0000 approved by the Consolidated Opinion of CEP No. 1,858,402.

The data were analyzed and interpreted according to the thematic - categorical content analysis. Then, the data were described using sociopoetic studies: classificatory, transversal, and philosophical. The classificatory study highlights the oppositions, dichotomies, alternatives, choices, existing, in the group of researcher group productions; the cross-sectional study highlights the connections, ambiguities and convergences present in the productions of the GP; and the philosophical study reveals itself from the theories chosen by the research facilitator and/or the members of the GP^(23,24).

RESULTS AND DISCUSSION

Seventeen individual themes were delimited, divided into 3 analytical categories, namely: Risk inherent to the practice, composed of 8 themes; How to protect myself, composed of 4 themes; and Necessary to know, composed of 5 themes and presented below.

Risk inherent in practice - classificatory study

In the analysis of the GP's imaginary about the activities inherent to their professional activity, which can expose them to the risk of accidents involving biological material, we can perceive two different currents of thought.

One considers the assistance activities themselves, performed in a hemodialysis unit, as shown in the statements below:

"During puncture of the fistula, handling of acidic material such as Puristeril, the work environment as a whole, direct and indirect contact with the patient".

"Hemostasis dressing (AVF), AVF puncture and needle removal. Performing puncture, catheter manipulation, administering medication, installing and returning the patient". (GP statements).

The other, however, considers not the activities, but the behavior adopted by the professional in relation to risk, as observed in the statements that follow:

"The non-use of PPE. Don't be careful. The lack of attention".

"Not using PPE properly, not washing your hands properly". (GP statements).

This divergence of positions may indicate that professionals recognize the need to use PPE, which is why they related non-adherence as a practice that can leave them exposed to risk, or, on the other hand, the fact of not mentioning risk situations may suggest that they do not

know effectively among the activities that perform those that put them at risk. One of the reports that mentions the manipulation of peracetic acid as a biological risk factor and not chemical risk, can corroborate this hypothesis.

Adherence to PPE is directly related to the perception of professionals about the risk that each procedure imposes on their occupational health, as well as their susceptibility to them⁽²⁵⁾.

It is necessary to make workers aware of the adoption of safe practices, as well as the recognition of occupational risk factors to which they are exposed⁽²⁶⁾.

How to protect myself- cross-sectional study

In this category, the individual themes unveiled by the GP pointed to an awareness of the importance of using the PPE appropriate to the activity to be performed, attention to the performance of procedures and the need to keep up to date.

"Correct use of PPE, hand washing and use of antiseptic alcohol".

"I use a mask, cloak, glasses, glove or visor when necessary. That almost always happens".

"Protecting myself with PPE, washing my hands and always doing it carefully. Attention, minimizing risks".

"Through continuing education classes. Being aware that I need to take care of myself for the service to proceed smoothly". (GP statements).

Adherence to PPE is essential for safe practice in health services. However, safety is not established only with the use of PPE, it is necessary to know about its use in different situations⁽²⁷⁾.

Necessary to know - cross-sectional study

Individual themes emerged in this category that reinforce the need to know the risk to which one is exposed in the

daily practice and to recognize the various actions in which this risk is present, carrying them out with care and attention. It is also noteworthy the report of the need to know the correct way of using PPE.

However, the statements that indicate the need to know the individual being cared for suggest the intention of providing humanized assistance, however, in terms of biological risk, all biosafety rules must be adopted universally, regardless of knowledge of the serological condition of the customer.

"To be aware of what risk I am currently taking and to pay the utmost attention when dealing with biological risks".

"We need to know and have access to all PPE".

"The patient, the work environment and all the routine that must be done and always do it with attention".

"Attention, care, try to get to know the individual I am caring for".

"The importance of hand washing, the use of PPE". (GP statements)

Knowledge influences everyday practice, and the more in-depth it is, the greater the learning will be, enabling coherent decisions and attitudes⁽⁴⁾.

The assessment of knowledge about the standard precautionary measures of health professionals is necessary, in order to make them aware of the importance of their adherence⁽²⁸⁾.

The success of the educational program is directly related to participation and recognition by workers and support from institutions⁽¹⁷⁾.

Artistic Productions

Using artistic practice, 20 drawings were produced, 10 referring to the question "How do I take care to prevent accidents with biological material?" and 10 to the question "How do I perceive the co-worker using PPE?". Two productions presented below were selected:

Figure 1. I take care of myself for the other. Rio de Janeiro, RJ, Brazil, 2017.

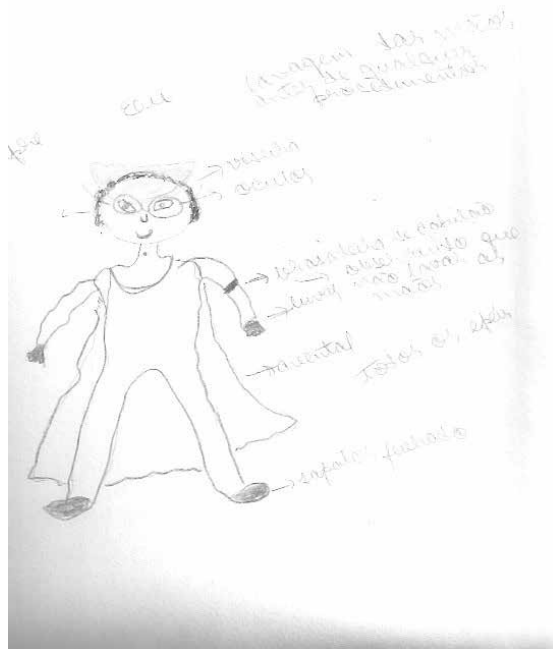


Figure 2. I think I protect myself. Rio de Janeiro, RJ, Brazil, 2017.



The themes of care, PPE, hand washing reveal that co-researcher 06 is concerned about her safety and the safety of her co-workers, her fully dressed self-representation suggests that she is ready for safe performance and is happy to this, as demonstrated by your smile.

Interpersonal influences would make it easier for individuals to adhere to health-promoting behaviors, as they would learn about the behaviors, beliefs and attitudes of others⁽²⁹⁾.

Possibly favoring not only the adhesion of PPE, but also the awareness of the importance of adhesion and concern for the other.

In this production, the theme of contradiction emerged, since the design of co-researcher 04 contradicts her rhetoric, as in her production she represents herself with pockets full of bullets and in her speech she conveys the message of using PPE correctly, indicating concern with biosafety. According to Regulatory Standard 32, it is forbidden to eat at work stations where there is a risk of accident involving biological material⁽³⁰⁾.

The risk of contamination by HBV stands out, for example, since this virus remains stable at room temperature for up to 7 days on inanimate surfaces⁽³¹⁾.

In order to reach the highest point in the development of reason, self-criticism or self-analysis, we need the help of the other, since our back, our shadow, we cannot see without the help of the other⁽²¹⁾.

CONCLUSION

The risk of occupational exposure to potentially contaminated blood or blood products is a reality in the daily work of nursing professionals working in hemodialysis units.

Therefore, recognizing this risk and the various situations in which it is present, as well as the correct use of PPE, is essential for preventing accidents and minimizing exposure to infectious agents, should the accident occur.

It was found that the nursing team needs to be guided on the importance of preventive actions (self-care), that most have knowledge about biological risk and self-care, but that this knowledge does not always translate into safe behavior. Evidencing the need for courses and training on the topic. ■

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