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RESEARCH

A unidade dialítica como um cenário de exposição a riscos

Dialytic unit as a scenario of exposure to risk

La unidad dialítica como un escenario de exposición a riesgos

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ABSTRACT

Objective: To identify conceptions of health professionals of a dialytic unit about the risks exposed. **Method:** a descriptive study of qualitative approach, among employees of the nursing staff of dialytic clinic. Data collection was done through interviews and participant observation, by signing a Free and Clarified Consent. The content analysis was the method of choice for the treatment of the data**. Results:** The occupational hazards most referenced were the chemical, physical and biological and ergonomic, respectively and, less frequently, the psycho-social. Strategies aimed at reducing the risks involve the use of personal protective equipment, care body posture and the provision of appropriate furnishings from the institution. **Conclusion:** investment in education, health, and measures which enable work in healthy conditions, constitute means of promoting the health of the worker. **Descriptores:** Workers' health, occupational hazards, renal dialysis.

RESUMO

Objetivo: Identificar concepções dos profissionais de saúde de uma unidade dialítica acerca dos riscos a que estão expostos. **Método:** Realizou-se uma pesquisa descritiva de abordagem qualitativa, entre trabalhadores da equipe de enfermagem de uma clínica dialítica. A coleta de dados foi feita por meio de entrevista e observação participante, mediante assinatura de um Termo de Consentimento Livre e Esclarecido. A análise de conteúdo foi o método de escolha para o tratamento dos dados. **Resultados:** Os riscos ocupacionais mais referenciados foram os biológicos, químicos, físicos e ergonômicos, respectivamente e, com menor frequência, o psicossocial. As estratégias apontadas para redução dos riscos envolvem o uso de equipamentos de proteção individual, cuidados com a postura corporal e a disponibilização de mobiliário adequado por parte da instituição. **Conclusão:** Investimentos em educação, saúde e medidas que possibilitem trabalhar em condições saudáveis, configuram meios de promoção à saúde do trabalhador. **Descritores:** Saúde do trabalhador, riscos ocupacionais, diálise renal.

RESUMEN

Objetivo: Identificar conceptos de los profesionales de salud de una unidad dialítica acerca de los riesgos a que están expuestos. **Método:** Se realizó una investigación descriptiva de abordaje cualitativa, entre trabajadores del equipo de enfermería de una clínica dialítica. La colecta de datos fue hecha por medio de entrevista y observación participante, mediante firma de un Término de Consentimiento Libre y Aclarado. El análisis de contenido fue el método de elección para el tratamiento de los datos. **Resultados:** Los riesgos ocupacionales más referenciados fueron los biológicos, químicos, físicos y ergonómicos, respectivamente y, con menor frecuencia, el psicosocial. Las estrategias apuntadas para reducción de los riesgos envuelven el uso de equipamientos de protección individual, cuidados con la postura corporal y la disponibilidad de mobiliario adecuado por parte de la institución. **Conclusión:** Inversión en educación, salud y medidas que posibiliten trabajar en condiciones saludables, configuran medios de promoción a la salud del trabajador. **Descriptores:** Salud del trabajador, riesgos ocupacionales, diálisis renal.

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INTRODUCTION

Health professionals in general are exposed to disease-causing agents, reality that makes it indispensable knowledge of individual and collective protective measures and the development of policies to promote the health of this population.

According to the studies, the workers who work in dialytics units know most occupational hazards that exist in these scenarios, although with smaller perception of physical and psychosocial risks, experience situations that configure the exposure to this agents[1-2].

It is known that the routine of work in renal units is strenuous and requires both technical skills as professionals. The daily contact with patients allows humanized care and caring and allows the completeness in attendance, but makes the workers vulnerable to exposure to risks arising from a context so agreeable. Witness the suffering of the patient, and often feel helpless cause suffering to the workers. The everyday experience for a long time with the same patients results in ambiguous feelings, as the recognition and demonstrations of affection that produce pleasure and, on the other hand, awareness and emotional overload on the affective deprivation and financial and family of some patients[2]. Such situations lead to suffering and can be classified as psychosocial risks.

Another risk pertaining to this activity, and not always perceived by nursing staff,[1] is the risk of an accident. A study conducted in a public hospital in the Federal District pointed out that among employees of a health care institution, including nurses, assistants/technicians, auxiliary nursing of several service, doctors, dentists, pharmacists, nutrition auxiliary, maintenance personnel and cleaners, lab technician, nursing was represented in about one third of accidents at work[3].

Among the most professional categories exposed to accidents, the assistance/nursing technicians are hit with more frequency[3-4], probably due to the greater of those professional contact with patients, seen that perform daily direct and uninterrupted care, in addition to fulfilling tasks such as cleaning, disinfection and sterilization of materials, in addition to performing invasive procedures, predictive situations of exposure to chemical and biological agents mainly.

Although many studies[3,5-6] demonstrate the need for individual and collective prevention measures, many professionals ignore or neglect them, facilitating the spread of communicable diseases and exposing their health or otherwise, do not use personal protective equipment (PPE) for not having them available on the service, in sufficient quantity, which also occurs in dialytic units, although the subjects realize the presence of the risks[1].

Occupational accidents, mostly, are linked to the failure to comply with the precautions and standards to unsafe practices such as improper disposal of sharps materials, negligence in the use of gloves and sharps disposal, in unprotected transport of needles[5,7].

Although the transmission of micro-organisms can occur by different routes, such as percutaneous exposure and mucous membranes to blood, body fluids, secretions, feces, aerosols, among others, most occupational biological accidents is caused by percutaneous exposure, in particular by needles and material involved in most exhibitions is the blood[4-5,7].

When it comes to physical risk when there is exposure to noise sources, variations in temperature and pressure, radiation, among others and the chemical risk, caused by chemicals that can be absorbed through the skin, respiratory system and gastrointestinal system[8], dialysis unit, the chemical risk can be well represented by the constant exposure to Peracetic acid, hydrogen peroxide and acetic acid, used for the sterilization of materials, as well as the acidic and basic concentrates consumed by machines during dialytic therapy.

In addition, health professionals are exposed to contact with sodium hypochlorite, hydrogen peroxide, alcohol, among other chemicals used for disinfection of machinery and materials[9].The physical risk can be well represented by the noise of the machines, daily, can cause discomfort.

As for the ergonomic risk, nursing teams are often subject to musculoskeletal disorders, characterized by back pains and other harms to vertebral column[5,10], due mostly to the lack of human resources, of bad posture during procedures, the inadequacy of securities and the maintenance of the equipment, the movement of patients incorrectly and the arrangement and organization of deficient physical area of the unit of work. In many scenarios are nonexistent devices that support the transport and movement of patients.

Psychosocial agents, that can generate the body wear and consequent illness, are due to factors such as lack of time, overwork, close contact with grief and interpersonal conflicts. In addition, working conditions involving monotony or excessive work rate, productivity requirements, authoritarian working relationships, training failures and in supervising workers and difficulties generated by the work in shifts, among others are also generators of psychosocial risk[8].

Health institutions require of its workers in technical and scientific knowledge and emotional conditions satisfactory to the development of supportive care and humanized. On the other hand, one can infer that the everyday work can influence negatively on the quality of life of workers generating harms to health, therefore impairing their job performance.

So, it is believed that prevention and management of risks arise from the identification of occupational agents of suffering and illness, from the point of view of who the experiences and research allows to exploit them, to intervene. This is, therefore the justification of this study.

Considering the several variables contributing to non-compliance with protective measures, in addition to the considerable impact on population health nursing workers that the situation involves, becomes relevant concepts/perceptions of the team know about the risks to which it is exposed in daily life, in order that reflects on the prevention of diseases and health promotion of the worker.

The objective of this research was to identify if the nursing staff of a dialytic unit realizes the risks to which is exposed.

METHOD

A descriptive research, qualitative approach, in a Renal Clinic partnership the Unified Health System, located in a municipality of Rio Grande do Sul's interior that has hemodialysis services and monitoring the patients on peritoneal dialysis and renal treatment conservative. The team of workers is made up of two doctors, three Nephrologists nurses, sixteen nursing technicians, two scholars and two collaborators performing general services.

The staff in the unit is divided into two shifts. The patient attends the clinic for treatment three times a week, staying on dialysis for 3 1/2 hours to 4 hours. About 130 patients are attended monthly.

The 19 employees of the nursing staff were invited to participate in the study that fit in the criterion for inclusion: belong to the functional framework of clinical nursing in any shift.

The data were collected through a questionnaire with open questions, collected by appointment with the subject, in the date and time to be more convenient. To complement the data, we used participant observation which consists in the presence and participation of the observer/researcher on social situation and helps to link facts to their representations and the unveiling contradictions between the rules and the lived in daily life[11]. A field journal was used to record the observations.

The research only started upon signing a Free and clarified Consent by the subject, in accordance with the opinion of the Ethics Committee of the Regional Integrated University Alto Uruguai and of the Missions, under number 0101 -4/PPH/10, and science of clinical Manager. The study was based on Resolution 196/96 of the National Council of health.

RESULTS AND DISCUSSION

The analysis of the content of the records was the method of choice for the treatment of the data. We opted for thematic mode for semantic similarity[11]. The analysis of contents composed initially of the organization of the material and thorough reading. Subsequently the data were coded from registration units, which were categorized, interpreted and inter-related with literature[11].

Characterization of subjects

Eighteen professional participated in the research of nursing staff in acting in morning and afternoon shifts, three nurses and 15 nursing technicians, of which four are male and 11 female. The length of service of employees in the unit ranged from seven months to sixteen years.

Occupational risks perceived by workers

All subjects believe that work in the Dialytic Unit offers risks and exposure to biological agents is prevalent in responses, blood and secretions are the most cited agents by subject, in line with other study[1]. Respectively, the chemical physical and ergonomic exposure was mentioned, and, less frequently, the psychosocial risk. The biological risk is evident in the unit, evidenced by the observation. In addition to the constant exposure to blood and secretions, the dialysis service has room for treatment of patients with communicable diseases, such as hepatitis and Aquired Immunodeficiency Syndrome (AIDS).

Exposure to biological risks commonly recorded in dialysis services is associated with the high pressure on arteriovenous fistula which, at the time of puncture, can generate blood, the sharp bladed accidents caused by needles during lumbar puncture of arteriovenous fistula, handling activities of blood and capillaries, among others[12].

As for the risk exposure, chemical substances most cited by subject as agents capable of exposing the worker to refer to products used for sterilization/disinfection of materials and machines, in concordance with other studies[9]. The participant observation has shown that the chemical risk is very present in the unit. Both the sterilizing/disinfectant, as the concentrate used in machines, and gloves generate skin dryness and reports of allergies.

We deal with large amounts of acids, volatile elements that over time can cause damage to the respiratory tract, skin, eyes (C).

Regarding exposure to physical risks, most subjects do not feel uncomfortable with these agents. The temperature and ventilation were considered appropriate, because of the use of air conditioners that unity offers, however due to the noise of the machines bothers some of them.

When the journey ends and turn off machines and air conditioning then we realize we were disturbed, it seems that withdrew a weight on our head (C).

Yes [bothers noise]. Because it will leave the restless patients stressing. The high temperature, when air conditioners are not working in the Hemodialysis [it bothers] (D).

Although few subjects refer to physical agents, temperature extremes were observed, when air conditioners are not working. In these situations, the rooms become very hot, because they have poor ventilation, which is configured as an environment devoid of thermal comfort. The noise of the machines exacerbate mainly when the osmosis water level decreases, which makes all the machines alarmed at the same time, configuring physical exposure. It was not meant the study to measure noise and temperature; the observations are based on sensitivity of the researcher.

The noises amounting negative psychic load in health units, because they increase the offsets in the living room, the efforts and vigilance of the workers relate with tension, insecurity and fear of losing control over the state of health of patients[13]. Also undermines the fulfillment of tasks by interfere with concentration and for causing the work stoppage to check the alarm. On the other hand, there are workers who maintain a posture of indifference to noises, which, despite being a defensive strategy, can be harmful, whereas the alarm indicates a situation to be corrected.

The relays in the attendance of the alarms can minimize the negative psychic load caused by the repetitiveness of the task, generate psychosomatic economy and contribute to making the "job environment less unhealthy, decrease the excess stimulation psycho-sensorial, fatigue and the risk of errors" [13:27].

When it comes to ergonomic risks, most of the subjects reported feeling pain in the spine, particularly in the lumbar region. At the same time, it was noted that the vast majority don't take any kind of care with the posture when moving patients or perform procedures. The furniture was deemed appropriate by the participants, although some have cited the height of chairs and the bleachers as inappropriate and the lack of stools or higher armchairs to patients in order to facilitate the withdrawal of needles, because it is necessary to stay a few minutes pressing the puncture site to prevent bleeding.

We don't have chairs (or stools) for patients high enough to prevent the curvature of the spine of the caretaker, I often notice that for employees there are only seats to sit without backrest for rest and relaxation during the 6 hours of activity, also recycled countertops or too high or too low (C).

It is very difficult to have a correct posture when we got a patient, for example, from a chair and put on a stretcher (G).

Some strategies are used to avoid physical discomfort during activities:

I keep the legs closer to the fullest and inflected the hands of the patient's body in the time to move him (D).

The act to elevate the armchairs to put patients in trendelemburg position, when present hypotension is often performed by only one employee, which raises the load on the spine, causing pain and discomfort. In addition, the transfer of patients to chairs and stretchers, staying for long periods in orthostatic position, performing material processing activities, exchange of dressings, puncture of fistulas, among others, features of service, can cause musculoskeletal discomfort if the worker is not tuned to the proper ergonomic posture.

A systematic review pointed high occurrence of musculoskeletal disorders in nursing workers, helpers/nursing technicians are the hardest hit, what can be justified by the type of activity developed by these professionals and by the lack of control of the working process. Such disorders mainly affect the back, shoulders, knees and the cervical region[10].

Although most of the subjects have not cited the psychosocial risk as prevalent, some believe the job is mental distress generator by factors such as closed environment, work with depressed people, the weight generated by responsibility with human lives, among others. Studies conducted in England and in Turkey, in dialysis units, demonstrated that the emotional burnout is not uncommon in this service and is more frequent in workers with more working time[14-15].

Yes. Because the day to day living with stressful situations, anguish and suffering will shaking us and no matter how much you try not to fix it in our organism. It's hard not to interact with all this (C).

Yes, because the environment does not allow free circulation, and the patients some depressive and are always the same, it can be depressing (H).

However, on the other hand, a study pointed out that the employees of these units realize that his performance helps maintain the life of patients, which may reflect positively in the sense attributed to work, favoring the self-esteem, satisfaction and nursing workers' professional identity. As we know the life story of some, loving feelings emerge, attachment and involvement with them. The nursing staff often configures itself as an affective reference for patients[2,16].

Most relate satisfactorily with user and leadership, but some have already experienced situations of psychological aggression by users, family members, colleagues and supervisors respectively.

[agression]Yes psychological, it has patients that are difficult for coexistence and even speak inappropriate thing for us professionals.(G)

It was observed that many patients direct their troubles and riots on account of his clinical condition to professionals, assaulting them verbally and, in extreme cases, physically. On the other hand, because they are chronic patients, living almost daily builds bonds of friendship and solidarity and humanized care favors.

Among some workers, there was some animosity, competitive attitudes and relationship problems, which is also an agent of psychosocial risk, because it generates conflict between the team and suffering. The conflict in teamwork was also a psychosocial risk factor in a family health team, along with the lack of preparation and/or training, paper overload, difficult to reconcile work and family, insufficient human and material resources, among others[17].

Accidents at work and use of personal protective equipment (PPE)

Of those surveyed, 55% reported not having suffered any kind of accident at work. Among the occurring, 62.5% were with a bladed cutting materials, 12.5% were chemical nature, eye and skin contact with Peracetic acid and 25% of origin like ergonomic such as metatarsal fracture, due to patient transport with stretchers and backaches. It is valid to note that apart from the accident that occurs as a result of industrial activities, it is considered as such diseases acquired during the work and associated with it[18]. The notification of an accident was made by 75% of respondents to the internal Commission for Accident Prevention (CIPA) of the company and/or the immediate leadership.

The institution offers PPE to prevent accidents and diseases such as gloves, goggles and masks, aprons and caps. Most referred to use them especially at the moment of exchange of patients on the machines and washing of materials. The most commonly used PPE are goggles, mask and gloves.

It was observed that the PPE are available by the company and charged by leaders, however its use in some situations is overlooked, as evidenced in other services[7], more visible in activities of "on/off" patients and little used in other routine procedures which also expose workers to risk, such as removal of air from the machine, venous and arterial lines exchange during dialysis, removal of venous puncture and needles. The change of

needles often occurs, is a risk factor for biological accidents and common practice among professionals, similar to another study[7].

The use of PPE guarantees the safety of both the professionals and the patients. In this way, it should be used whenever it recognizes or provides exposure to biological materials or toxic or radioactive products[12,19]. It must be available in sufficient numbers in the PPE jobs. Among them include procedure and surgical gloves, rubber gloves, acrylic goggles, protective acrylic facial masks, waterproof apron and long-sleeved overcoat, boot or shoe closed waterproof, as described in the Regulatory Standard Nr. 6[19].

Contribution of the workers and the company for the reduction of occupational risks

The use of PPE was the individual contribution most remembered by workers to decrease exposure to occupational risks, followed by careful posture and attention to the physical and mental overload.

Using PPE, having attention to what you're doing, helping colleagues to reduce the overhead, always guiding colleagues on the importance of self-care (C).

The provision and use of PPE requirement by the leadership was more strategy referenced by the interviewees to reduce exposure to occupational risks. The subjects considered as company contributions to occupational risk reduction: continuing education, gymnastics, suitable furniture for procedures and greater number of workers.

The company could offer a fast interval and gymnastics would help both the physical and the psychic side of employees (C).

Aware everyone with continuing education and conducting trainings of the importance of prevention of accidents involving the use of PPE. Offering a suitable environment to reduce risks and prevent accidents from any source (E).

Appropriate place to perform technical dressings and men to pass patients [carriage of stretchers and chairs] (J).

Stools to sit to remove and puncture needles (K).

The worker has a key role in the reduction of exposure to occupational hazards, however it should be assisted by the company through education and provision of appropriate equipment and furniture. In addition, because being a unit in which the society of the suffering and limitation of patients is constant, a psychological support can be useful for obtaining better quality of life, besides strengthening of light technologies, as the dialogue, the respect and appreciation of the category.

CONCLUSION

This study has shown the main occupational risks they are exposed to nursing professionals of dialytic unit, being more referenced by subject biological risks, due to constant exposure to blood and secretions; a chemical by being a unit in which are widely used chemicals for washing and sterilization of materials, apart from exposure to physical agents and ergonomic.

Although little mentioned in the study, the psychosocial risk is of enough relevance, since nursing is a category that provides direct care to patients, requiring spare special attention to this situation. The use of PPE and the care of posture, as well as the provision of PPE and suitable furnishings were the strategies of the worker and the company more referenced by workers for the reduction of occupational risks.

Thus, investments in education, in health and in measures that facilitate work in healthy conditions constitute means of health promotion and prevention of diseases and may be strategies that add value to the nursing care, as we value the health of the worker. Other mechanisms involving group discussions about the needs and coping modes of adversity contribute to healthy experiences at work.

It is recommended more research in this area and attention to worker's health, because, although the risks are not in harms, there is the likelihood of illness, which stresses the importance of investments in prevention.

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