

Contexts of experience of being (un) comfortable in patients with chronic kidney disease

Contextos de experiência de estar (des)confortável de pacientes com doença renal crônica Contextos de experiencia de estar (des) cómodo de pacientes con enfermedad renal crónica

ABSTRACT

Sinara de Menezes Lisboa Freire¹ ⁽¹⁾ Geórgia Alcântara Alencar Melo¹ ⁽²⁾ Magda Milleyde de Sousa Lima¹ ⁽³⁾ Renan Alves Silva^{1,2} ⁽³⁾ Joselany Áfio Caetano¹ ⁽³⁾ Jênifa Cavalcante dos Santos Santiago¹ ⁽³⁾

Universidade Federal do Ceará,
Departamento de Enfermagem, Fortaleza,
CE, Brasil.

 Universidade Federal do Espírito Santo, Centro Universitário do Norte do Espírito Santo. São Mateus, ES, Brasil. **Objective:** to establish the contexts of the experience of being (un) comfortable, according to the perceptions of patients with chronic kidney disease, during hemodialysis treatment. **Method:** qualitative study, carried out in a hemodialysis clinic, between May and June 2018, with 30 patients with chronic kidney disease, undergoing hemodialysis, able to communicate verbally. A semi-structured interview was used, with guiding questions that sought to elucidate the contexts of experience of feeling and being comfortable, based on Kolcaba's theoretical framework. Data submitted to thematic content analysis. **Results:** four analytical categories emerged, regarding the contexts of (dis) comfort: physical (immobility, hypotension, pain, hunger, cramp, tiredness, polyuria, itching, edema, thirst); environmental (light, noise, chair, cold); psycho-spiritual (despair, sensitivity, social isolation); and social (change of routine). **Final considerations:** the meaning of comfort for patients undergoing hemodialysis was configured as basic human need, as patients experienced daily discomfort related to physical, environmental, psycho-spiritual and social contexts. **Implications for practice:** the results of the study enable health professionals to provide assistance to chronic renal patients in a holistic way, based on the promotion of comfort.

Keywords: Patient comfort; Chronic renal failure; Nursing theory.

Resumo

Objetivo: estabelecer os contextos da experiência de estar (des)confortável, conforme percepções de pacientes com doença renal crônica, durante tratamento hemodialítico. Método: estudo qualitativo, realizado em clínica de hemodiálise, entre maio e junho de 2018, com 30 pacientes com doença renal crônica, em tratamento hemodialítico, capazes de comunicar-se verbalmente. Utilizou-se da entrevista semiestruturada, com perguntas norteadoras que buscaram elucidar os contextos de experiência de sentir-se e estar confortável, baseadas no referencial teórico de Kolcaba. Dados submetidos à análise de conteúdo temática. **Resultados:** emergiram quatro categorias analíticas, no tocante aos contextos de (des)conforto: físicos (imobilidade, hipotensão, dor, fome, cãibra, cansaço, poliúria, prurido, edema, sede); ambientais (luz, barulho, cadeira, frio); psicoespirituais (desespero, sensibilidade, isolamento social); e sociais (mudança de rotina). **Conclusões e Implicações para a prática::** o significado do conforto para pacientes em tratamento hemodialítico se configurou como necessidade humana básica, pois os pacientes apresentaram desconfortos diários relacionados aos contextos físicos, ambientais, psicoespirituais e sociais. os resultados do estudo possibilitam que profissionais de saúde realizem assistência ao paciente renal crônico de forma holística, pautada na promoção do conforto.

Palavras-chave: Conforto do Paciente; Insuficiência Renal Crônica; Teoria de Enfermagem; Diálise Renal; Imagem Corporal

RESUMEN

Objetivo: establecer los contextos de la experiencia de estar (des) cómodo, según las percepciones de pacientes con enfermedad renal crónica, durante el tratamiento de hemodiálisis. Método: estudio cualitativo, realizado en clínica de hemodiálisis, entre mayo y junio de 2018, con 30 pacientes con enfermedad renal crónica, en hemodiálisis, capaces de comunicarse verbalmente. Se utilizó la entrevista semiestructurada, con preguntas orientadoras que buscaron dilucidar los contextos de experiencia de sentirse y estar cómodo, basadas en el marco teórico de Kolcaba. Datos sometidos al análisis de contenido temático. **Resultados:** surgieron cuatro categorías analíticas con respecto a los contextos de (des) comodidad: física (inmovilidad, hipotensión, dolor, hambre, calambres, cansancio, poliuria, picazón, edema, sed); ambiental (luz, ruido, silla, frío); psicoespiritual (desesperación, sensibilidad, aislamiento social); y social (cambio de rutina). **Conclusiones e Implicaciones para la práctica:** El significado de comodidad para pacientes sometidos a hemodiálisis se configura como necesidad humana básica, ya que los pacientes experimentan molestias diarias relacionadas con los contextos físicos, ambientales, psicoespirituales y sociales. Los resultados del estudio permiten a los profesionales de la salud prestar una asistencia holística a los pacientes renales crónicos, basada en la promoción de la comodidad.

Palabras clave: Comodidad del Paciente; Insuficiencia Renal Crónica; Teoría de Enfermería; Diálisis Renal; Imagen Corporal

Corresponding Author: Magda Milleyde de Sousa Lima E-mail: limamilleyde@gmail.com

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Freire SML, Melo GAA, Lima MMS, Silva RA, Caetano JA, Santiago JCS

INTRODUCTION

Chronic Kidney Disease (CKD) is characterized as a public health problem that causes changes in kidney functions in a progressive and irreversible way¹. According to the Brazilian Chronic Dialysis Survey, in 2017, Brazil estimated 48,596 patients receiving treatment in 291 active units².

Evidence attests that the most used treatment among Brazilian patients with CKD is hemodialysis^{1,3}. However, despite technological advances, this method generates changes in the daily routine of patients, which may impair their comfort due to holistic changes in the physical, spiritual, social and psychological spheres, with manifestations related to sleep quality, anxiety, restlessness, fear, cold, heat, hunger and stress^{4,5}.

A recent study that sought to identify factors related to impaired comfort in patients with chronic kidney disease under hemodialysis, observed that these conditions are associated with the variables age, impaired physical mobility and marital status. It also found that these conditions explain 45.7% of the presence of being or feeling comfortable⁶.

These data are justified because, by correlating age with impaired comfort, it is possible to identify that in addition to the risk factors of dialysis therapy, the elderly in the process of senility usually have multiple diseases, polypharmacy and high rates of hospitalization⁷.

In addition, impaired physical mobility is a factor of discomfort, as patients with chronic kidney disease may develop osteomuscular diseases such as myalgia, arthralgia and cramp⁸. In turn, the marital situation may influence comfort, since individuals with spouse support have a greater chance of adhering to treatment and facing the difficulties of the disease⁹.

In the face of these observations, it is essential to know the intervening factors of being or feeling comfortable. In this sense, Katharine Kolcaba's Theory of Comfort presents itself with potential use, since it helps the nephrologist to understand and perform interventions based on basic human needs that, for the moment, are related to states of comfort: tranquility, relief and transcendence^{10,11}.

In this theory, great concepts stand out, especially, the context and the state of comfort. Context is defined as the space in which human experiences occur and in which the fullness of feeling and being comfortable is partially or totally reached. In this scenario, four contexts were established in which these nursing actions should be processed or be influenced: physical, psycho-spiritual, socio-environmental and socio-cultural¹⁰.

With respect to the state, the types or transitions from comfort to fullness have been defined, that is, the moment in which the human being experiences the process of attaining basic human needs, being categorized into three phases: tranquility, relief and transcendence.

In view of this, in an unsystematic search of the literature, it can be seen a scarcity of studies that seek to perceive the contexts of experience of being comfortable of patients with chronic kidney disease, favoring a better direction of interventions to reach the plenitude of feeling and being comfortable, thus arousing innumerable questions on this subject. It was found that the studies are limited to identifying the levels of well-being and factors related to impaired comfort. Thus, it is relevant to seek to know meanings, contexts, states and intervening variables of comfort in individuals with chronic renal individuals undergoing hemodialysis.

Also, to establish the contexts of welfare/discomfort experience in this population emerges as a propitious space for testability and applicability of the theoretical and philosophical presuppositions of the Comfort Theory, as this phenomenon passes through twelve cells or combinations of the theoretical model (contexts versus states).

Thus, since this is a medium-range theory, evidence should be continuously produced and disseminated, favoring better results in clinical practice for patients and health professionals who will use it.

Therefore, this study aimed to establish the contexts of the experience of being (un)comfortable, according to the perceptions of patients with chronic kidney disease, during hemodialysis treatment.

The Mid-Range Theory of Comfort of Katharine Kolcaba states that successful nursing interventions require nurses to care for unmet needs of patients and provide relief, immersing themselves in the perspective that patients need holistic care, since they have desires and aspirations that extend beyond the physiological aspect or somatic needs¹¹.

Thus, in order to operationalize the study, the researcher defined comfort as: "The state of having met basic human needs for ease, relief, and transcendence "12:239, that is, the state of having met basic human needs for relief, calm and transcendence.

The term relief is defined as a state in which the patient satisfies a specific need and, in order to satisfy it, it is necessary to act on the global factors that generate discomfort. Calm is classified as a state of tranquility and, in order to achieve it, it is necessary to satisfy needs related to a lasting and continuous situation of well-being. Transcendence, in turn, is defined as a higher circumstance of comfort, thus, in order to satisfy it, education and motivation measures are urgently required¹⁰.

However, in the area of nursing, the term comfort is related with greater prevalence with physical, social, psycho-spiritual and environmental contexts. Thus, it is associated with the corporal sensations that the patient experiences (physical aspect); the emotions and perceptions of the inner *self*, that is, self-esteem and self-concept (psycho-spiritual aspect); the interpersonal relationships between patient, family and community (social aspect); and environmental characteristics related to the patient, such as temperature, color or light (environmental aspect)^{10,13}.

To measure comfort levels, the General Comfort Questionnaire (*General Comfort Questionnarie* – GCQ) was developed, with 48 items combining state and context dimensions^{14,15}.

METHOD

Qualitative study, performed in a hemodialysis clinic, located in a public reference hospital of Fortaleza, Ceará State, Brazil, from May to June 2018. The population of this clinic was 130 patients. In this study, 30 people with chronic kidney disease who were under hemodialysis treatment were enrolled from a non-probability sample for convenience. Among the inclusion criteria, the following were defined: to be diagnosed with CKD, to be conscious and self-psychic and halo psychically- oriented (through the Mini Mental State Exam - MMSE) and to be over 18 years old. The exclusion criterion was adopted: being unable to communicate verbally.

The participants capture was based on a prior list, from the inclusion and exclusion criteria. Thus, a protocol was established to investigate those patients who did not present with recurrent intradialytic complications, based on the evolution of their medical records to minimize possible interruptions regarding machine management. Thus, it was established with the clinical team the need to ensure and safeguard privacy and ethics, considering the interruptions in the data collection process.

The instrument for data collection was made up of broad questions about the concepts presented in Theory of Comfort. The questions were answered verbally by the participants, from the mediation of the main researcher who seized the statements through a recorder, after explaining the objectives of the research to the participants, in a face-to-face approach.

To collect information, we used the semi-structured interview, with questions that sought to list the contexts in which comfort/discomfort was experienced by patients with chronic kidney disease in hemodialysis treatment.

When considering the theoretical framework, questions are elaborated to guide the four contexts of comfort/discomfort: physical, socio-cultural, psycho-spiritual and environmental. Thus, regarding the physical body sensations that the patient may experience (How do the physical aspects bring more discomfort to him/her?); self-esteem and self-concept (Did you feel that self-esteem/emotions changed after starting the hemodialysis treatment?); the aspects and characteristics of the environment surrounding the patient (Do you consider the hemodialysis room environment comfortable? In what sense?); and the interpersonal relationships between patient, family and society (Do you think your relationships - family, friends, team, interpersonal relationships - changed after the beginning of hemodialysis treatment?).

The interview took place during the hemodialysis sessions, with an average frequency of twice a week, in all shifts, individually, in the hemodialysis environment. The answers were recorded in an MP4 device that was later fully transcribed, preserving the interviewees' statements.

The closing of the conversation took place from theoretical exhaustion, when the 30 participants answered the questions, so that the findings became repetitive. Thus, this number made it possible to approach the object and identify common themes, which allowed the focus of the study to be reached. The statements were identified by the letter E to identify the interviewees in order to maintain anonymity.

Then, the findings were submitted to the Bardin content analysis method, which describes as an analysis organization

criterion the steps: pre-analysis, exploration of the material and treatment of results¹⁶. After the full transcription of the interviews, floating reading was performed, which allowed the definition of the corpus to be analyzed. The analytical categories were defined a priori, according to the reference of the Mid-Range Theory of Comfort, proposed by Katharine Kolcaba, from the identification of the contexts of (un)comfort: physical, psycho-spiritual, environmental and socio-cultural.

This study is in accordance with the national and international requirements for research with human beings, according to the Certificate of Presentation for Ethical Appreciation (CAAE): 83521918.9.0000.5054. In addition, the administrative aspects were respected, with obtaining a consent form from the clinical directorship of the locus of the study institution and application of the informed consent form for the participants.

RESULTS

The sample was composed of patients between 30 and 83 years of age, the majority being 30 to 60 years old (53.2%), female (63.3%), literate (76.7%), catholic (83.4%), had no active occupation at the time of collection due to clinical conditions (86.6%). A considerable part was dependent of illness aid (86.6%), with average income of R\$ 954.00, lived and dialyzed in the capital (76.7%) and lived with the family nucleus (83.4%). The mean time of treatment in hemodialysis was 4.12 years, with a minimum interval of one week and a maximum of 19 years. The participants performed hemodialysis session in the second shift, between 11:30 and 15:30 (43.3%).

Physical Aspects

Body Sensations

In this category, the physical aspects related to body sensations were explained, which were divided into subgroups, which represented the very indicators present in the statements of the patients interviewed. Indicators: immobility, hypotension, bone pain, insomnia, pain with the puncture of the arteriovenous fistula, hunger, cramp, tiredness, headache, catheter (subclavian/jugular), polyuria, itching, swelling, gastrointestinal symptoms, symptoms affecting the nervous system, thirst, absence of symptoms.

Thus, we present the lines about immobility, hypotension, bone pain, insomnia, pain with the puncture of the arteriovenous fistula, hunger, cramp, tiredness, headache, catheter (subclavian/jugular), polyuria, itching, swelling, gastrointestinal symptoms, symptoms affecting the nervous system, thirst, absence of symptoms, respectively: [...] Spend four hours sitting, without moving, without taking water, without moving the arm. (E1) [...] I am having a lot of spinal crisis, the pain only passes with tramal. (E2) [...] Only when I'm heavy, I feel insomnia. (E3) [...] I feel pain in the puncture because I am not numb. (E3) [...] I cramp is too much, it ties my shins in a knot, my feet get hard, I cry out in pain. (E4) [...] Headache is the worst. (E5) [...] The problem was more in the beginning with the catheter, because I could not sleep, take

a bath. (E4) [...] Itchy back appears more when I go to bed. (E6) [...] swelling of the belly. (E7) [...] wince, desire to provoke and bitter mouth. (E8) [...] dizziness and fainting. (E9) [...] Not being able to drink water. (E9) [...] I feel nothing, I don't take anything, I just do hemodialysis. (E10)

The symptoms and complications were reported very frequently in the interviews. Although renal replacement therapy is performed with effective technique, appropriate environment, and the right materials arsenal, these symptoms are due to clinical manifestations and treatment of chronic kidney disease.

Psychospiritual Aspects

Feeling of Depression /Mood Lability Humor

In this category are represented those statements that showed potential tendency to depressive mood and mood instability. Indicators: it's all over, despair, crying, sensitivity, lack of will, social isolation, nervous. [...] Yes, it's all over for me, sometimes it gives me a certain despair, because I start to think about those things that happened to me and the sequels that remained, I became more crying. There are days when I dawn without a will, I keep asking God not to get depressed. (E12)

It was noticed, from the exemplified reports, that patients with chronic kidney disease presented, very commonly, altered psychic pictures, with immersion in a state of abatement that may result in demotivation, which puts at risk the capacity to face the new routine of hemodialysis.

Self-esteem and Appearance

In this category, the statements that showed self-esteem and appearance changed to more or less were listed. Indicators: shame, prejudice, getting ugly, slim, I don't fix myself, I don't take care of myself, I take care more, vanity. [...] I have never felt ashamed to do hemodialysis, but prejudice exists when you put the catheter in your neck and you sit in the bus chair and there is a seat left on the side and nobody sits because they think it is a venereal disease, a tuberculosis. (E1)

In the statements, the prejudice of society towards the patient with kidney disease was perceived. Although it indicated that he was not embarrassed by the new situation, it was understood the discomfort with the way he was seen.

The relationship between self-image and self-esteem was also observed: [...] the person on hemodialysis gets uglier, thinner and darker. Today, I look in the mirror and say: "Look how ugly I am!" Everybody comes in and the first thing they say is: "- Goodness, how thin you are!" They think we have HIV. (E13) [...] Yeah, I don't really do it anymore, my hair I cut, I'm not doing my hair anymore, I don't dye my nails anymore. (E14)

Other statements favored the elevation of self-esteem, indicating that individuals absorbed different forms of confrontation in order to achieve psychological comfort.[...] No, the self-esteem has not changed, I keep taking care of myself, I go to the salon, I fix my hair, I do eyebrows and nails. (E15)

Emotions

In this category, interviews were grouped that demonstrated feelings of balance and emotional imbalance as a result of the treatment. Indicators: revolt, nonconformity, anger, anguish, conformance, not despair. [...] I am very resigned to the disease, I am here only for a while, when He wants to take me, I go. I don't despair of it. (E2) [...] Yes, I've been through so much that it's not easy, it gives me a revolt. (E6)

One can see from the statements that the emotions of the interviewees have changed. In the first, the feeling of revolt was elucidated, differing from the account of the other, the psychic stage in which they find themselves. The first found acceptance, while the second remained in a stage of revolt and anger.

Environmental Aspects

The comfortable and uncomfortable aspects related to the environment and external conditions were explained here, which were divided into subgroups that represent the indicators present in the statements of the patients interviewed. Indicators: light, noise, chair, cold and without environmental discomfort.

[...] The light bothers me, I come in a cap to protect myself. (E3); [...] the noise is bad, I can't even take a nap. (E16); [...] only the chair is bad, this plastic mistreats us a lot, imagine staying here for four hours! (E1); [...] the cold is very bad, there are days when you have to break your shin. (E17); [...] Only the cold is bad, but here they regulate when we ask. I don't care if there's a chair, if there's a snack, my purpose is to make my need, to take care of myself. (E18)

Environmental comfort is indispensable for hemodialysis. It is noticeable that the patient with chronic kidney disease under treatment refers to discomfort related to the environment. Often, this is due to the precarious conditions of some clinics, but this, in fact, is not always the real reason for dissatisfaction, since it is observed that environmental issues are accentuated when considering the frequency and duration of sessions, factors that influence the conceptions of environmental well-being. The immobility of the furniture was observed in addition to the extensive amount of sitting time, highlighting the dissatisfaction of the patients with the chair.

Socio-cultural Aspects

Interpersonal Relationships

In this category, the interviews that mentioned changes in interpersonal relationships and social activities after the beginning of treatment are described. Indicators: routine change, no more doing, no more travelling, no more going to parties, no more going to church, team. [...] hemodialysis gets in the way because it cannot do this and it cannot do that. (E1) [...] I don't participate in birthday parties anymore. (E2) [...] the routine changes, now I only go to church on Sundays. (E19) [...] I don't trust to travel no, because the journey is long. (E19)

The statements indicated significant changes in daily activities, interpersonal relationships, habits and even activities

that offered pleasure. It can be inferred that the patient with CKD has altered interpersonal relationships so that they can meet the new condition imposed by the disease, changes that can influence family relationships, religious practices, pleasurable activities such as celebrating birthdays with friends or even traveling, which can lead to emotional changes and social introspection. Thus, the patient with chronic kidney disease abdicates relationships with others to prioritize his/her own subsistence. *Here at the clinic I say it is my second home [...]* (E20) *I like the team a lot, they are fun [...]* (E21)

As for the interviews cited, it was inferred that, although social relations are harmed, there is a bond that is strengthened within this strenuous routine of the renal patient, the link with the health team that provides essential care to the patient. From the reports, it is evident that the team becomes the second family of the patient, showing the existence and importance of the bond formed.

Labor Activities

The captured interviews were related to changes in the patients' employment relationships and home activities after undergoing hemodialysis treatment. Indicators: employment, work. [...] who will want to give a job to those who have only three days a week? (E22) [...] I miss working a lot, today I just sit around doing nothing, that's what kills us the most, it depends on others for everything. (E17) [...] I was a housewife, it changed more because we have to be careful with the fistula, we have to manage the work more. I'm so eager to work, if I could come back I would, but we really can't stand it, the day we're at home, we want to rest. (E23) [...] I still work normally with sales, I'm getting carried away because I work for myself. (E24)

Family Support

Indicative reports of family support received by patients were grouped immediately after diagnosis and at the beginning of hemodialysis treatment. Indicators: family, children, husband, wife, siblings, support, care, abandonment.[...] With the family it changed, because I see like this, that they think I don't need so much care, but I wanted it to be closer. (E25) [...] my wife left me when I came the first day here. (E26) [...] Yes, my family is more apprehensive than I am, their concern for me has increased. (E24)

DISCUSSION

The data analyzed revealed that the experience of being comfortable was related to physical, psycho-spiritual, environmental and socio-cultural well-being. In this context, in the physical aspect, the study showed, through the reports of the participants, that the patients presented discomfort related to body sensations. Similarly, another study identified that patients with chronic kidney disease on hemodialysis treatment presented negative changes in quality of life, especially in physical function, resulting from the overload of the disease, causing damage to general health¹⁷.

Regarding patients with chronic hemodialysis kidney disease, research shows that the most common physical issues

presented are pressure drops, cramps, headaches, weakness, tiredness, indisposition, general malaise¹⁸. Other complaints are associated with the use of hemodialysis catheter, compared to arteriovenous fistula; the catheter would cause discomfort and is aesthetically unpleasant, while arteriovenous fistula would provide greater comfort and safety in hemodialysis treatment¹⁹. Regarding patients with hemodialysis chronic kidney disease, research shows that the most common physical issues presented are pressure drops, cramps, headaches, weakness, tiredness, indisposition, general malaise¹⁸. Other complaints are associated with the use of hemodialysis catheter, compared to arteriovenous fistula; the catheter would cause discomfort and is aesthetically unpleasant, while arteriovenous fistula would provide greater comfort and safety in hemodialysis treatment¹⁹.

Research shows that acute symptoms and complications are always present in the routine of renal patients undergoing treatment, however, medication, technical care with the procedure and habits of the patient, in terms of prevention, are part of the arsenal of measures that may be available to avoid complications²⁰. Thus, it can be inferred that knowing the main symptoms resulting from the therapy will provide measures to improve comfort issues related to body sensations.

The results of this study converge with another, in which it was observed in individuals affected by skin conditions that the promotion of comfort passes through the dimensions of Kolcaba's theory. Thus, any disease that causes pain often results in immobility and alteration in the sleep pattern. Thus, nephrologists should elect comfort interventions, based on this triad, in order to promote relaxation in order to reduce physical disabilities and increase the quality of life of these individuals²¹.

In turn, comfort, associated with psycho-spiritual well-being, was associated with the indices of depression and the ability to mood, self-esteem, appearance and emotions. The change in the routine of patients has an impact on the way of living, causing the development of negative feelings, affecting psycho-spiritual contentment²².

The reports on the depression index and mood lability showed that the patients presented psychic alterations related to a state of depression and demotivation. A study conducted in the city of João Pessoa, Paraíba, Brazil, observed that 20% of participants with CKD presented depressive symptoms, being 12% mild depressive symptoms, 6% moderate and 2% severe²³.

The statements of the participants in the self-esteem and appearance index revealed the feeling of prejudice experienced in daily life, due to self-image. It can be seen that psychological and emotional concerns, arising from the treatment, also impact on comfort⁶. On the other hand, as debilitating as hemodialysis treatment may be, also providing prejudice, stressful situations could be avoided, favoring better quality of life and development of resilience. This concept of conformation as a coping strategy exposes that well-being and quality of life can be compatible with people living in a condition of chronic kidney disease²⁴⁻²⁶.

Thus, the body's transformations, added to the low self-esteem, lead the kidney patient to go through discomfort of psychological

context. A previous study found that psychological changes result in discomfort to the patient, due to dependence on hemodialysis therapy, causing significant changes that impact daily life²⁵. In this context, research has shown that the patient with chronic kidney disease develops strategies that make it possible to face and live better with the disease, despite the difficulties and limitations imposed by chronic kidney failure²⁴.

Psychospiritual issues are represented in literature by nuances of feelings that range from anger, irritation and frustrations to feelings of fear and anxiety. Sadness was the most reported sentiment, the statements raised in this study echo to ratify how real the psychological changes are and result in discomfort to the patient, since it is treatment dependent²⁵.

Thus, nurses should consider exposure to embarrassing situations due to self-image, motivating individuals to choose artifices that reduce the victimization of the disease, by means of long clothing that reduces body exposure and catheter and fistula²⁷. However, it is essential that the individual with chronic kidney disease be motivated to develop strategies to provide better coexistence in the family and social context²¹.

Social issues are represented by a break in lifestyle and the need to adapt to a new condition. Difficulty in traveling; job abandonment due to the routine of hemodialysis; difficult financial situation, allied to the restrictions of leisure activities, are some of the discomforts in the social context of the chronic kidney failure patients²⁵.

In this group, changes in work were observed in different spectra, as the reports showed different views on the process. In the first report, the patient showed deep sadness when having to abandon the daily work, showing pleasure in the activities. The second report pointed out that the abandonment to work resulted from the strenuous routine to which the renal patient was submitted, three times a week, for four hours, making it impossible to establish employment contracts.

Regarding the environmental aspect index, the patients' statements suggested that although hemodialysis treatment is performed in clinics with appropriate environments and qualified professionals, the discomfort is present due to surrounding factors such as light, noise, chair and cold. These data corroborate a study of environmental dissatisfaction, measured on a scale of 1 to 10, whose patients undergoing hemodialysis showed dissatisfaction with the sound signals emitted by the machine (mean of 5.98), followed by discomfort caused by the chair (mean of 6.79). In addition, interviewees reported that these two factors cause discomfort, since they make it difficult to sleep during the session²⁸.

Thus, it is pointed out that these factors are modifiable and that, according to Kolcaba's theory, nurses can alter environmental characteristics, such as noise and furniture, to provide comfort to the patient¹⁰. Moreover, to improve the environmental aspect, it is necessary to perform training among the multi-professional team and invest in the infrastructure of the hemodialysis room, with improvement in lighting, temperature, machine noise and chair discomfort²⁸.

In addition, it is noteworthy that the performance of nurses in this scenario involves multiple factors that are responsible for the quality of life of patients and the outcome of treatment, since it is responsible for supervising the nursing team, controlling the environment with checking the operation of dialysis machines, drug surveillance and infection control²⁹.

The reports also identified patients who did not care about the characteristics of their surroundings, because for them the greatest comfort they could achieve would be access to the treatment itself, as an example of the last category: "without environmental discomfort".

In the socio-cultural aspect, weakened social relations were found. These data corroborate another study that demonstrated that the disease interferes negatively in social relationships, mainly due to water and food restrictions, making the patient feel uncomfortable at parties and gatherings among family and friends³⁰.

Moreover, the study showed that despite the weakened relationships, the patient with kidney disease feels safer when connected to the various professionals responsible for care¹⁴, because a holistic relationship based on the patient's needs favors resolutive care and improves quality of life, requiring more interventions by the multi-professional team to improve the life of patients undergoing hemodialysis treatment³¹.

Intervention studies showed that health education, based on verbal orientation and clarification of doubts about CRD, signs and symptoms of hyperphosphatemia, use of phosphorus chelators, nutrition, improved physical functioning, physical function, pain, general health, emotional well-being, list of problems/symptoms, effects of kidney disease, overload of kidney disease and sleep³². Thus, health education consists of effective, safe and sensitive intervention on the intervening variables of the physical, psycho-spiritual and socio-cultural context, which maximizes states of comfort.

Regarding nursing interventions in the socio-cultural context to promote comfort in this area, it should be ensured that interpersonal, family and social relationships are intensified and not diminished, as the interviewees say, in the search for the integrity of social comfort. Furthermore, educational and support interventions should be continuously carried out in order to achieve relief, calm and reach the personal transcendence of comfort in this condition on screen²¹.

Contrary to the results found, the study points out that the variables involved in chronic kidney disease patients, susceptible to the action of nurses in the environmental context, are risk of infection, bleeding, contamination, allergic response and temperature²⁹. However, this research has emerged new variables intervening in the environmental context, subject to the performance of nurses, which should be verified later in new studies.

As a limitations of the study, we highlight a regional expressions that may reduce the extent to which speech representativeness or the impact on the lives of patients is represented in other social and cultural contexts different from the reality investigated are cited as research restrictions. Moreover, the absence of qualitative analytical studies in this population, as to the context of being and feeling comfortable experiencing this disease, on the occasion of hemodialysis therapy.

FINAL CONSIDERATIONS AND IMPLICATIONS FOR PRACTICE

The data analyzed, based on Katharine Kolcaba's theory, revealed that the meaning of comfort for patients in hemodialysis treatment was configured as basic human need, associated with aspects related to physical, psycho-spiritual, environmental and socio-cultural well-being. These dimensions do not act individually; instead, they combine in a way that generates in each individual unique response to their own needs.

Thus, it is noted that individuals with chronic kidney disease experience different contexts of being comfortable / uncomfortable, among these contexts, the issue of physical, socio-cultural, environmental and psycho-spiritual contexts was noted in the speech. A relationship was observed between symptomatology and clinical intercurrences, during the interdialytic period, being of great importance the nursing team's performance in these contexts, in order to provide comfort to the patient.

In addition, external dimensions of care that can influence discomfort have been investigated, such as changes in the patient's routine and the abandonment of work activities, corroborating in stressful health conditions. In turn, the dimensions that influence comfort are associated with psycho-spiritual and socio-cultural aspects related to spirituality and the bond with the health team.

In this study, contributions were made regarding the consistency of the contexts in which comfort is experienced as proposed by the theoretician, proving congruent with the clinical practice in hemodialysis. Furthermore, it was found that this study was able to empirically test the contexts of being and feeling comfortable when experiencing chronic kidney disease in hemodialysis treatment. Thus, it is recognized that the propositions defended by the theoretical were observed in this study, reaching the criterion of empirical adequacy.

Thus, it is understood that the results of this research enable health professionals to direct the care process to chronic renal patients, dependent on renal replacement therapy, to promote comfort, in a holistic manner, through the description, explanation and prediction of this phenomenon.

Therefore, among the variables involved in comfort, are monitoring and reducing inter and intradial complications, through the control of machine flow and other clinical parameters, health guidance, aimed at changing inappropriate behaviors, increasing self-esteem and self-concept, promoting the development of coping strategies, mood control, resilience, socialization and social support by family members and other members, reducing anxiety, strengthening bonds and environmental control, in ensuring the quality and safety of care. Added to this, it is suggested that new research be carried out, focused on the development of artifacts or interventions to promote the well-being of patients undergoing hemodialysis treatment.

AUTHORS' CONTRIBUTIONS

Study design. Acquisition, data analysis. Writing and critical review of the manuscript. Approval of the final version of the article. Responsibility for all aspects of the content and integrity of the published article. Sinara de Menezes Lisboa Freire

Study design. Analysis and interpretation of results. Writing and critical review of the manuscript. Approval of the final version of the article. Responsibility for all aspects of the content and integrity of the published article. Jênifa Cavalcante dos Santos Santiago

Study design. Interpretation of results. Writing and critical review of the manuscript. Approval of the final version of the article. Responsibility for all aspects of the content and integrity of the published article. Georgia Alcântara Alencar Melo.

Interpretation of results. Writing and critical review of the manuscript. Approval of the final version of the article. Responsibility for all aspects of the content and integrity of the published article. Magda Milleyde de Sousa Lima. Joselany Áfio Caetano.

Analysis and interpretation of results. Writing and critical review of the manuscript. Approval of the final version of the article. Responsibility for all aspects of the content and integrity of the published article. Renan Alves Silva.

ASSOCIATE EDITOR

Rafael Celestino da Silva

REFERENCES

- Ranasinghe AV, Kumara GWGP, Karunarathna RH, De Silva AP, Sachintani KGD, Gunawardena JMC et al. The incidence, prevalence and trends of Chronic Kidney Disease and Chronic Kidney Disease of uncertain aetiology (CKDu) in the North Central Province of Sri Lanka: an analysis of 30,566 patients. BMC Nephrol. 2019;20(1):338. http:// dx.doi.org/10.1186/s12882-019-1501-0. PMid:31462219.
- Castro MCM. Conservative management for patients with chronic kidney disease refusing dialysis. J Bras Nefrol. 2019;41(1):95-102. http://dx.doi.org/10.1590/2175-8239-jbn-2018-0028. PMid:30048562.
- Thomé FS, Sesso RC, Lopes AA, Lugon JR, Martins CT. Inquérito Brasileiro de Diálise Crônica 2017. J Bras Nefrol. 2019 abr-jun;41(2):208-14. PMid:30968930.
- Santos BP, Oliveira VA, Soares MC, Schwartz E. Chronic kidney disease: relation of patients with hemodialysis. ABCS Health Sci. 2017;42(1):8-14. https://doi.org/10.7322/abcshs.v42i1.943.
- Estridge KM, Morris DL, Kolcaba K, Winkelman C. Comfort and fluid retention in adult patients receiving hemodialysis. Nephrol Nurs J. 2018;45(1):25-60. PMid:29470003.
- Melo GAA, Aguiar LL, Silva RA, Quirino GS, Pinheiro AKB, Caetano JA. Factors related to impaired comfort in chronic kidney disease patients on hemodialysis. Rev Bras Enferm. 2019;72(4):889-95. http://dx.doi. org/10.1590/0034-7167-2018-0120. PMid:31432943.
- Debone MC, Pedruncci ESN, Candido MCP, Marques S, Kusumota L. Nursing diagnosis in older adults with chronic kidney disease on hemodialysis. Rev Bras Enferm. 2017;70(4):800-5. http://dx.doi. org/10.1590/0034-7167-2017-0117. PMid:28793111.
- Fidan F, Alkan BM, Tosun A, Altunoglu A, Ardiçoglu Ö. Quality of life and correlation with musculoskeletal problems, hand disability and depression in patients with hemodialysis. Int J Rheum Dis. 2016;19(2):159-66. http://dx.doi.org/10.1111/1756-185X.12171. PMid:24176031.
- Medeiros RC, Sousa MNA, Santos MLL, Medeiros HRL, Freitas TD, Moraes JC. Epidemiological profile of chronic renal patients in treatment.

Freire SML, Melo GAA, Lima MMS, Silva RA, Caetano JA, Santiago JCS

Rev Enferm UFPE. [Internet]. 2015 [citado 2020 jan 28];9(11):9846-52. Disponível em: https://periodicos.ufpe.br/revistas/revistaenfermagem/ article/viewFile/10777/11921

- Boudiab LD, Kolcaba KY. Comfort Theory unraveling the complexities of veterans' health care needs. ANS Adv Nurs Sci. 2015;38(4):270-8. http://dx.doi.org/10.1097/ANS.00000000000089. PMid:26517339.
- Kolcaba KY. Evolution of the mid range theory of comfort for outcomes research. Nurs Outlook. 2001;49(2):86-92. http://dx.doi.org/10.1067/ mno.2001.110268. PMid:11309563.
- 12. Kolcaba KY. A taxonomic structure for the concept comfort. Image J Nurs Sch. 1991;23(4):237-40. http://dx.doi.org/10.1111/j.1547-5069.1991. tb00678.x. PMid:1937522.
- Leandro TA, Silva VM, Lopes MVO, Guedes NG, Nunes MM, Sousa TM et al. Impaired comfort in children and adolescents with cancer. Rev Bras Enferm. 2018;71(3):934-41. http://dx.doi.org/10.1590/0034-7167-2017-0050. PMid:29924175.
- Kolcaba KY. A theory of holistic comfort for nursing. J Adv Nurs. 1994;19(6):1178-84. http://dx.doi.org/10.1111/j.1365-2648.1994. tb01202.x. PMid:7930099.
- Kolcaba KK. Holistic comfort: operationalizing the construct as nursesensitive outcome. ANS Adv Nurs Sci. 1992;15(1):1-10. http://dx.doi. org/10.1097/00012272-199209000-00003. PMid:1519906.
- 16. Bardin L. Análise de conteúdo. São Paulo: Edições 70; 2011.
- Zazzeroni L, Pasquinelli G, Nanni E, Cremonini V, Rubbi I. Comparison of quality of life in patients undergoing hemodialysis and peritoneal dialysis: a systematic review and meta-analysis. Kidney Blood Press Res. 2017;42(4):717-27. http://dx.doi.org/10.1159/000484115. PMid:29049991.
- Bouya S, Ahmadidarehsima S, Badakhsh M, Balouchi A, Koochakzai M. Effect of aromatherapy interventions on hemodialysis complications: a systematic review. Complement Ther Clin Pract. 2018;32:130-8. http:// dx.doi.org/10.1016/j.ctcp.2018.06.008. PMid:30057040.
- Nogueira FLL, Freitas LR, Cavalcante NS, Pennafort VPS. Perception of patients with chronic kidney disease regarding care towards their hemodialysis access. Cogitare Enferm. [Internet]. 2016 [citado 2019 out 7];3(21):1-8. Disponível em: https://revistas.ufpr.br/cogitare/article/ view/45628
- Arhuidese IJ, Orandi BJ, Nejim B, Malas M. Utilization, patency, and complications associated with vascular access for hemodialysis in the United States. J Vasc Surg. 2018;68(4):1166-74. http://dx.doi. org/10.1016/j.jvs.2018.01.049. PMid:30244924.
- Brandão ES, Santos I. Theories of nursing in promotion of comfort in dermatology. Rev enferm UERJ. 2019; 27:e38330. http://dx.doi. org/10.12957/reuerj.2019.38330.

- Müller HH, Englbrecht M, Wiesener MS, Titze S, Heller K, Groemer TW et al. Depression, anxiety, resilience and coping pre and post kidney transplantation - initial findings from the Psychiatric Impairments in Kidney Transplantation (PI-KT)-Study. PLoS One. 2015;10(11):e0140706. http:// dx.doi.org/10.1371/journal.pone.0140706. PMid:26559531.
- Costa FG, Coutinho MPL. Doença renal crônica e depressão: um estudo psicossociológico com pacientes em hemodiálise. Psicol Saber Soc. 2016;5(1):78-89. http://dx.doi.org/10.12957/psi.saber.soc.2016.13815.
- Silva RAR, Souza VL, Oliveira GJN, Silva BCO, Rocha CCT, Holanda JRR. Coping strategies used by chronic renal failure patients on hemodialysis. Esc Anna Nery. 2016;20(1):147-54. http://dx.doi.org/10.5935/1414-8145.20160020.
- Pham TV, Beasley CM, Gagliardi JP, Koenig HG, Stanifer JW. Spirituality, coping, and resilience among rural residents living with chronic kidney disease. J Relig Health. 2019. http://dx.doi.org/10.1007/s10943-019-00892-w. PMid:31392626.
- Noghan N, Akaberi A, Pournamdarian S, Borujerdi E, Sadat Hejazi S. Resilience and therapeutic regimen compliance in patients undergoing hemodialysis in hospitals of Hamedan, Iran. Electron Physician. 2018;10(5):6853-8. http://dx.doi.org/10.19082/6853. PMid:29997771.
- 27. Coelho ECS, Pompeu HHFA, Ferreira IP, Souza AS, Castilho FNF, Santos VLC et al. Knowledge of patients in hemodialysis as to self-care with central venous cateter. Rev Eletron Acervo Saúde. 2018;11(2):1-8. https://doi.org/10.25248/reas.e141.2019.
- Grebin SZ, Echeveste MES, Magnago PF, Tanure RLZ, Pulgati FH. Estratégia de análise para avaliação da usabilidade de dispositivos médicos na percepção do usuário: um estudo com pacientes em tratamento de hemodiálise. Cad Saude Publica. 2018;34(8):1-15. http:// dx.doi.org/10.1590/0102-311x00074417. PMid:30133654.
- Aguiar LL, Guedes MVC. Nursing diagnoses and interventions of the safety/protection domain for hemodialysis patients. Enferm Glob. jun 2017;16(47):1-37. http://dx.doi.org/10.6018/eglobal.16.3.248291.
- Schick-Makaroff K, Molzahn AE, Kalfoss M. Symptoms, coping, and quality of life of people with chronic kidney disease. Nephrol Nurs J. 2018;45(4):339-55. PMid:30303644.
- Warsame F, Ying H, Haugen CE, Thomas AG, Crews DC, Shafi T et al. Intradialytic activities and health-related quality of life among hemodialysis patients. Am J Nephrol. 2018;48(3):181-9. http://dx.doi. org/10.1159/000492623. PMid:30176670.
- 32. Stumm EMF, Benetti ERR, Pretto CR, Barbosa DA. Effect of educational intervention on the quality of life of hyperphosphathemic chronic renal patients on hemodialysis. Texto Contexto Enferm. 2019;28:e20180267. http://dx.doi.org/10.1590/1980-265x-tce-2018-0267.