SOCIAL REPRESENTATION OF NURSING CARE BEFORE COVID-19 IN HEMODIALYSIS

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ABSTRACT

Objective: To analyze the social representations of nursing professionals working in hemodialysis on nursing care in the face of COVID-19. Method: Descriptive, exploratory, qualitative research, based on the Theory of Social Representations in the structural approach. Performed in two Assistance services in Nephrology of Curitiba, Paraná, Brazil, with 93 nursing professionals. In the data collection, questionnaires were applied, in the face-to-face and remote mode, with socioeconomic variables and the Free Evocation of Words technique, with the inducing term “Nursing Care in Times of COVID-19 in hemodialysis”. Data analysis was performed using the software Ensemble de Programmes Permettant L’Analyse Evocations 2005. Result: The central core was composed by the terms: hand washing, mask, personal protective equipment, care, disinfection and guidance, which represents the protective attitude for the safe care of oneself and the other. The other quadrants brought attitudes, feelings and actions that reinforced the central core. Conclusion: The representations of the nursing team with care to patients on hemodialysis in the pandemic denoted the protective character of the team with themselves and with the other to ensure safe care and patient safety.


INTRODUCTION

On January 12, 2020, the World Health Organization (WHO) released news about the outbreak with the new coronavirus (SARS-CoV-2), originating in Wuhan, China. In March, the disease became known as COVID-19, reaching pandemic status(1). Since then, health professionals, especially nursing, which represents 59% of the total number of those(2), have been highlighted in the front line action, aiming at the prevention and combat of the disease, seeking its mitigation(1).

To mitigate contamination by the virus, government agencies implemented policies and guidelines that established specific guidelines for health professionals in the performance of their activities. In hemodialysis services, there was a reorganization of the flows of care by the nursing team, guiding patients and family members in relation to circulation, food, need for follow-up and monitoring of signs and symptoms of COVID-19. In addition to the promotion of health education, in order to encourage and guide patients on the importance of wearing masks, hand hygiene and use of alcohol gel(3).

In this sense, the social role of nursing professionals stands out, based on their professional skills to promote people-centered care, with actions aimed at individuals, families and community, aiming to minimize the transmission of the virus(4). Faced with this action, social representations (SR) are created, reflected in the nursing work, which allow the researcher to know the meanings built in the social relations of the people studied, which may influence health care in hemodialysis units(5).

The SR, in addition to interacting with behaviors, compose a dynamics, which
manifests itself with knowledge production and shapes definitions for care\(^6\). Defined as a system of values, ideas and practices that guide people and enable communication between members of a community, providing them with a code to name and classify the various aspects of their world and their individual and social history\(^7\).

As social objects, COVID-19 disease and hemodialysis care are the essential elements to produce representations. COVID-19, previously unknown, becomes part of the concern with the health of people who undergo hemodialysis and the nursing team, which can be thought of and on which care should be taken and implemented.

Moreover, aiming to produce scientific content to optimize the safety and quality of care of people with kidney disease and minimize the risk of transmission of COVID-19, through more appropriate health actions, the following question arises: what are the social representations of the nursing team of care in times of pandemic? This research aims to analyze the Social Representations of nursing staff professionals who work in hemodialysis on nursing care in the face of COVID-19.

**METHODOLOGY**

This is an exploratory, descriptive, qualitative study, based on the Theory of Social Representations (TSR), from the assumptions of the Structural Approach or Theory of the Central Core (TCC)\(^8\). TSR is defined as a specific form of knowledge, which has as functions the recognition and development of behaviors between subjects, through their interaction with the social environment, transforming them, that is, when they recognize themselves as part of a group that builds a reality\(^7\).

The theoretical perspective of the structural approach emphasizes the cognitive-structural dimension, in which the organization of a social representation is configured around a central core formed by one or more elements (words) that give meaning to representation\(^9\). The core is rigid, permanent and difficult to be modified, giving meaning to social representations. The representational structure is also formed by a peripheral system, which is concatenated to the practical and behavioral attributes exercised by the subjects\(^9\).

This study was developed in two reference centers in nephrology in Curitiba (PR), Brazil, which assist patients who come from private plans and the Unified Health System (UHS). The participants of this study were 93 nursing professionals, who met the following inclusion criteria: being a professional of the nursing team (nurses, assistants and technicians), and being active in the area of hemodialysis during the COVID-19 pandemic, in 2021, of both sexes and willing to participate in the research voluntarily. Nursing professionals on vacation or who were on sick leave during the data collection period were excluded.

The sample was of the non-probabilistic type and the selection of participants was by convenience, defined due to the totality of nursing professionals, the application of the inclusion and exclusion criteria, the availability of participating in the research and the minimum number of participants required to recover representations in the structural approach of the theory\(^10\).

After obtaining a list with the nursing coordination of the two nephrology services, the study was disclosed by invitation to participate, through posters, physically available in the units and sent digitally by WhatsApp groups, in addition to active search for participants in the services.

For data collection, an instrument was produced, with four questions addressing sociodemographic data (age, sex, training time and time working in nephrology, without distinction of professional category), and there was the application of the Free Association Test of Words (FATW) that seeks to access the organization and structure of the representation investigated. FATW is a technique for collecting the constituent elements of the content of a social representation. This technique is often employed in the structural approach, and consists in asking participants to, from an inductive term, say words that come immediately to mind\(^9\).

The invitation comprised a brief explanation of the study, followed by the link that directed to a form in Google Forms, containing the ICF. This method to collect data (Google Forms) is justified by the social isolation experienced,
making it difficult to search in person. After the participant confirmed the ICF, they were directed to the instrument to be filled out and, after completion of the response, there was no regression.

However, some participants did not answer the instrument remotely, which led the researchers to go to the units. In this case, the invitation was forwarded in a similar manner. After signing the printed ICF, the evocations were collected through a printed instrument, applied individually, in a reserved place, in the nephrology unit. The participant was asked to write up to five words or expressions that came to mind, after the quote of the expression: “Nursing care in times of COVID-19 on hemodialysis”.

The evocations were typed in a text in the Word software, in the original form as described by the participants, based on the natural order of the evocations, being made the correction of the terms evoked next. Finally, a dictionary of standardization of evocations was elaborated in order to preserve the semantic content expressed by the participants(8).

The analysis was performed using the software Ensemble de Programmes Permettant L’Analyse des Evocations (EVOC) 2005. This computer resource adopts the criteria of frequency and order of appearance of the terms mentioned for the elaboration of the chart of four boxes, through which the central core (CC), the contrast elements and the peripheral system are discriminated(8,11).

When the structural elements of a representation are distributed in the chart of four houses, it is verified that the terms located in the upper left quadrant give greater meaning to the representation, being part of its probable CC. The contents organized in the upper right quadrant (first periphery) and in the lower right quadrant (second periphery) are arranged around the probable central core, and correspond to the most accessible and concrete components of the representation, and the elements arranged in the lower left quadrant relate to the contrast zone(8).

The development of this research was approved by the Research Ethics Committee (REC) of the Federal University of Paraná (UFPR), under opinion N. 4.817.545, complying with the norms of Resolution N. 466/2012, and all participants signed the Informed Consent Form.

RESULTS

The 93 participants are mostly female (87.1%). The predominant age group was 31 to 40 years, found in 38 participants (40.9%), followed by 23 participants in the age group 41 to 50 years (24.7%), 23 aged 24 to 30 years (24.7%) and nine aged 51 to 59 years (9.7%). Among the participants, 41.9% (39) reported working in nephrology from 1 to 5 years, 23.7% (22), from 5 to 10 years, 17.2% (16) had 10 years or more and 17.2% (16), from 6 months to 1 year. The time since graduation reveals that 34 (36.6%) have >10 years, 29 (31.2%) have > 1 year to 5 years, 28 (30.1%), >5 to 10 years and 2 (2.1%) have 6 months to 1 year.

The analysis of the corpus formed by the evocations of the participants revealed that, in response to the inductive expression “Nursing Care in Times of COVID-19 in hemodialysis”, 465 words were evoked, among which 179 were different and with an average order of importance (AOI) of 3.00. The minimum frequency of evocation adopted for insertion in the chart construction was five. The combined analysis of these data resulted in a chart of four boxes (Chart 1). The distribution of the terms in the quadrants allowed analyzing the structure and contents of the representations formed by the CC, peripheral elements (first and second periphery) and contrast zone. The chart of four houses consists of 25 evoked words, presenting a varied distribution of terms between the plans. The upper left quadrant (ULQ) concentrates terms associated with the central core (CC) of the representation, being evoked in greater quantity and in the first positions. These contents indicate the possible central contents of the representation of hemodialysis care in times of COVID-19 and are the most significant elements for the studied group.

Hand washing was the term most readily evoked by the participants, indicating, among the others that make up the central core, followed by: mask, PPE Personal Protection Equipment, disinfection, care and guidance. Among these, the elements hand washing, mask,
PPE and disinfection, which make up the representational system, and refer to the collective memory of this group of the concept about safety for care, actions that health professionals must perform in order to prevent the transmission of the virus and preserve the health of all.

Chart 1. Chart of four houses with the evocations of health professionals from hemodialysis clinics. Curitiba, PR, Brazil, 2022.

<table>
<thead>
<tr>
<th>Term</th>
<th>Frequency</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand-washing</td>
<td>44</td>
<td>2.205</td>
</tr>
<tr>
<td>Mask</td>
<td>39</td>
<td>2.410</td>
</tr>
<tr>
<td>PPE</td>
<td>31</td>
<td>2.806</td>
</tr>
<tr>
<td>Care</td>
<td>29</td>
<td>2.621</td>
</tr>
<tr>
<td>Disinfection</td>
<td>13</td>
<td>2.846</td>
</tr>
<tr>
<td>Guidance</td>
<td>10</td>
<td>2.600</td>
</tr>
<tr>
<td>Frequency ≥ 10</td>
<td>Average classification ≥ 3</td>
<td></td>
</tr>
<tr>
<td>Hand-washing</td>
<td>44</td>
<td>2.205</td>
</tr>
<tr>
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<td>13</td>
<td>2.846</td>
</tr>
<tr>
<td>Guidance</td>
<td>10</td>
<td>2.600</td>
</tr>
<tr>
<td>Frequency ≤ 5</td>
<td>Average classification &lt; 3</td>
<td></td>
</tr>
<tr>
<td>Fear</td>
<td>9</td>
<td>2.222</td>
</tr>
<tr>
<td>Distancing</td>
<td>7</td>
<td>3.000</td>
</tr>
<tr>
<td>Prevention</td>
<td>7</td>
<td>2.729</td>
</tr>
<tr>
<td>Precaution</td>
<td>7</td>
<td>2.429</td>
</tr>
<tr>
<td>Glove</td>
<td>6</td>
<td>2.833</td>
</tr>
<tr>
<td>Attention</td>
<td>6</td>
<td>2.167</td>
</tr>
<tr>
<td>Responsibility</td>
<td>5</td>
<td>2.800</td>
</tr>
<tr>
<td>Life</td>
<td>5</td>
<td>2.200</td>
</tr>
<tr>
<td>Protection</td>
<td>5</td>
<td>2.000</td>
</tr>
<tr>
<td>Frequency ≤ 5</td>
<td>Average classification ≤ 3</td>
<td></td>
</tr>
<tr>
<td>Fear</td>
<td>9</td>
<td>4.111</td>
</tr>
<tr>
<td>Distancing</td>
<td>7</td>
<td>3.111</td>
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<tr>
<td>Prevention</td>
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<tr>
<td>Precaution</td>
<td>8</td>
<td>3.250</td>
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<tr>
<td>Glove</td>
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<td>5.711</td>
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<td>Attention</td>
<td>5</td>
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</tr>
<tr>
<td>Responsibility</td>
<td>5</td>
<td>4.800</td>
</tr>
</tbody>
</table>

The terms care and guidance express positive meanings, the presence of the term care in the possible CC seems to demonstrate the awareness of participants about the importance of education and self-protection in the daily health care, indicating that health care is essential for obtaining and maintaining good conditions and being healthy.

In the first periphery are the elements with high frequency, but not evoked promptly: alcohol gel and respect. They are more flexible, concrete and more accessible. They are words that support the CC, and have attitudinal and concept (information) character. The term alcohol gel refers to the care practice of the professional and respect is a positive term related to care, and portrays the daily life of the professional who assists people on hemodialysis during the pandemic period of COVID-19, in addition to strengthening these feelings that arise from exposure to the disease.

The terms less frequent and evoked late configure the second periphery (right lower quadrant): vaccine, empathy, apron, love, isolation, signs and symptoms and sadness. Such words vaccine, isolation and apron constitute technical aspects related to care practices to avoid exposure to the disease, that is, nursing professionals represent aspects of prevention and self-protection measures when providing care. The terms empathy and love indicate positivity for care, resulting in behaviors for care that are not only based on the biological potential of spreading the virus, but on actions on doing in the face of the affects generated in everyday life. The term sadness forms a negative dimension of representation and reflects the psychological adaptation of participants to the exposure to COVID-19.

In the contrast zone (lower left quadrant LLQ) or intermediate elements, it is observed the presence of words that reinforce the CC and that constitute a content related to the term fear, which is a negative element that may be associated with the danger, people’s vulnerability to contamination and disease.
The terms distancing, vaccine, protection, precaution and prevention, which are normative elements of coping with the disease and reflect knowledge and practices to avoid the spread of the disease, are noteworthy. The term glove reaffirms the elements present in the CC, of evaluative dimension, associated with biosafety and self-protection measures. The term responsibility, along with attention, suggests the awareness of the need for caution regarding professional positioning and the explanation of knowing/doing by nursing professionals in their daily lives. The terms humanization and life are attitudinal elements, which represent a positive way to behave in relation to care in the face of the facticity of the disease.

**DISCUSSION**

The configuration of the social representation of nursing care in hemodialysis in times of COVID-19 reflects in the CC the practical, attitudinal or evaluative dimensions, associated with the normative aspects for controlling the transmission of the disease. The attitudinal or evaluative dimension explains the overall orientation of the group in relation to the object(13), in this case, nursing care. The construction of the practical dimension of SR of nursing professionals dealt mainly with the care process of control to prevent secondary infection to COVID-19 in hemodialysis facilities, manifested by the expressions: hand washing, mask, PPE and disinfection.

CC consists of normative and functional elements(8). Thus, it is considered that the contents hand washing, mask, personal protective equipment, disinfection and guidance are functional, since they have an operative purpose, related to care practices. The term care is normative, since it relates to the value system of the social group studied, establishing the position and judgment taken before the object.

For this group, hand washing is crucial for the protective behavior against COVID-19 in hemodialysis. This is one of the most effective actions in the prevention of this disease, not only in health services, but also in society in general(12). It is recommended to patients and professionals continuously, becoming a fundamental measure of all sanitary protocols(13).

Its correct execution removes the transitory flora of the skin and the desquamative cells, reducing the risk of infection.

Participants in this study demonstrate awareness of self-protection in daily care in times of COVID-19 on dialysis, indicating that this measure is essential for maintaining or obtaining protection for the health of oneself and the other. In addition, reinforcing the representation found in the CC on prophylactic care as an action performed for oneself, but also for the protection of the community, the terms disinfection, apron in the RLQ and gloves in the LLQ, the latter two demonstrating the use of PPE as an active part of care(14). The term alcohol gel expressed in the URQ reinforces the contents of CC, being one of the main components used for self-protection in hemodialysis care(15).

Thus, the practical dimension of the SR of care is articulated to the strategies of coping with the coronavirus, important for prevention and protection against the spread of the virus(12). These findings confirm the recommendations of the Clinical Practice Guideline for Hemodialysis Units and guidelines for responding to COVID 19, which warns all professionals involved in care, patients and caregivers, personal hygiene education, including hand washing, use of masks, avoid unnecessary contacts, among others(16). As well as the intensification of biosafety measures that meet the requirements by workers(17).

From the CC, it is possible to identify the presence of attitudinal or evaluative dimensions that make up a social representation. The evocation orientation and care evidences the evaluative process of the participants in relation to the process of illness and transmission of the disease. The term orientation and care can be considered as a recent social construction, that is, possibly, it is a new evaluation of the transmissibility of the disease, which is now associated with positive results, from the adherence to biosafety measures. The evocation care has justifying function for health-disease-virus.

Corroborating this inference, it is considered that people with chronic kidney disease needed stricter safety measures(3), since there is evidence that people with preexisting chronic diseases or...
immunosuppressed had a higher risk of death from viral infection\textsuperscript{18}. Moreover, hemodialysis is considered a highly invasive treatment that requires complex care and requires direct and continuous assistance\textsuperscript{19}. Therefore, the importance of creating a screening process aimed at the flow of care of patients on hemodialysis in order to maintain a safe environment for all\textsuperscript{20}.

When analyzing the other quadrants, it is observed that the evocations of the RL vaccine, isolation, signs and symptoms and contrast zone (LLQ), distancing, prevention, caution, attention, responsibility and protection are attitudinal elements that represent a positive way to behave before the facticity of health-disease-virus, establishing an active position in relation to nursing care. This is in line with SR care contents that recognize the vulnerability of the renal population by these participants.

The peripheral system of social representations has a function of realization and regulation of the CC, which allows customized modulation and defense function, as a system that protects the CC\textsuperscript{8}. It also allows the existence of historical connotations and individual histories, being flexible and tolerable to the contradictions and heterogeneity of the group, contrasting with the homogeneity of the group, and is linked to memory, being consensual, rigid and resistant to change\textsuperscript{8}.

In this regard, the terms evoked in the peripheral system of this study can group representations of more heterogeneous aspect among the participants. The terms fear and sadness can be related to feelings raised in a new and unknown pandemic context, with a series of repercussions, and it is expected that these feelings will come to the surface in the nursing team, directly involved in the care of people on hemodialysis. The terms respect, attention and responsibility can highlight the qualificiation of care (which appears in the CC) of the nursing team, which should be zealous due to the fear that they may be the source of infection.

The affective dimension was a prominent concept in the evocations of the participants, presenting density of results, and enabling access to the subjective connotations that the SR of nursing care in the face of COVID 19 has for these professionals. They are endowed with singularity and subjectivities arising from their daily experience, being these producers of reality shared with the social group and individually.

Regarding the interface between affections and everyday thinking, it is emphasized that the latter is built from the tension of the daily situations of people present in this situation, the task to perform linked to the pragmatic demands of social demands\textsuperscript{21}. Thus, the routine of the pandemic in hemodialysis promotes affects, which leads the nursing team to reflect, because it puts them in another state of being, and pushes them to action in the face of fear, sadness. Therefore, care must be based on science, technical execution, respect, responsibility and humanization.

Finally, it is emphasized that the feelings found in this research have a more positive connotation for care, namely: love, empathy, respect, which represent a more defined scenario in relation to the pandemic if we compare to other studies, that brought the SR more focused on death, uncertainty, sadness\textsuperscript{22,23}. The evocations of humanization and life present in the contrast zone are elements that promote coherence and protection to CC, represented by attitudinal dimensions of positive nature as care.

The process of nursing care in hemodialysis can be enhanced by therapeutic relationship governed by attention, love and empathy established by the nursing team, in order to act as support experienced by people undergoing hemodialysis treatment in the face of the unexpected condition of the COVID-19 pandemic.

Therefore, knowing that the care process implies overcoming the technical model, the social representations of care are complex, given that these professionals deal with fears and uncertainties that permeate the process of the COVID-19 pandemic.

**FINAL THOUGHTS**

The present study allowed inferring that the contents of the social representations of nursing care in times of COVID 19 in hemodialysis are based on the practical, attitudinal or evaluative and affective dimensions. In the CC of nursing care representation, functional elements related to care practice coexist with normative elements
The results demonstrate the importance of a trained nursing team, in addition to the structural and organizational conditions to provide care during the COVID-19 pandemic in hemodialysis, aiming to meet the different needs of these people, recognizing their degree of vulnerability and promoting safe, humane and responsible care.

The representations of the nursing team with the care related to hemodialysis in the pandemic demonstrated the protective character of the team with themselves and with the other to promote safe care. In this research, one highlights the most positive view about the care of people with chronic kidney disease, associated with the time when data were collected.

The probable central elements of SR of nursing care in the face of the pandemic in hemodialysis demonstrate an active position to promote care, allied to the pro-safety attitudes of oneself and the other. There was concern about prevention and care related to COVID-19, not only for health professionals, but also for the community of chronic kidney patients on hemodialysis. Thus, the study will contribute to a better understanding of the values and practices that guide nursing care, enabling to know the influence of these in health care in the treatment of people with chronic kidney disease.

Furthermore, it is emphasized the potential of SR as a useful concept to understand the progress of social changes in groups, societies and communities, in view of nursing care. In this sense, future studies should work with various scenarios of assistance where nursing professionals are inserted, aiming to expand and deepen the theoretical framework on the subject.

A limitation of the research is the sample size, because studies prove that there is a need for a larger volume of data to generate a more stable prototypical analysis and the diversity of participants who were nurses and technicians without distinction from the professional category, which may have brought a bias to SR, in addition to data collection performed in a hybrid way. In spite of the above, another limitation of this research was the difficulty of the researchers regarding the availability of nursing professionals to perform the evocations, as well as the restriction of face-to-face contact for data collection.

**ANÁLISE DA REPRESENTAÇÃO SOCIAL DO CUIDADO DE ENFERMAGEM PERANTE A COVID-19 NA HEMODIÁLISE**

**RESUMO**

**Objetivo:** Analisar as representações sociais dos profissionais da equipe de enfermagem que atuam em hemodiálise sobre o cuidado de enfermagem perante a COVID-19. **Método:** pesquisa descritiva, exploratória, qualitativa, fundamentada na Teoria das Representações Sociais na abordagem estrutural. Realizada em dois serviços de Assistência em Nefrologia de Curitiba, Paraná, Brasil, com 93 profissionais de enfermagem. Na coleta de dados, aplicaram-se questionários, na modalidade presencial e remoto, com variáveis socioeconômicas e a técnica de Evocação Livre de Palavras, com o termo indutor “Cuidado de enfermagem em Tempos de COVID-19 na hemodiálise”. A análise dos dados foi realizada com auxílio do software Ensemble de Programmes Permettant L’analyse Evocations 2005. **Resultado:** O núcleo central foi composto pelos termos: lavagem de mãos, máscara, equipamento de proteção individual, cuidado, desinfecção e orientação, que representa a atitude de proteção para o cuidar seguro de si e do outro. Os demais quadrantes trouxeram atitudes, sentimentos e ações que reforçaram o núcleo central. **Conclusão:** As representações da equipe de enfermagem com cuidado aos pacientes em hemodiálise na pandemia denotaram o caráter protetor da equipe consigo e com o outro para garantir o cuidado seguro e a segurança do paciente.


**ANÁLISIS DE LA REPRESENTACIÓN SOCIAL DEL CUIDADO DE ENFERMERÍA ANTE EL COVID-19 EN HEMODIÁLISIS**

**RESUMEN**

**Objetivo:** analizar las representaciones sociales de los profesionales del equipo de enfermería que actúan en hemodiálisis sobre el cuidado de enfermería ante el COVID-19. **Método:** investigación descriptiva, exploratoria, cualitativa, fundamentada en la Teoría de las Representaciones Sociales en el abordaje estructural. Realizada en
dos servicios de Asistencia en Nefrología de Curitiba, Paraná, Brasil, con 93 profesionales de enfermería. En la recollección de datos, se aplicaron cuestionarios, en la modalidad presencial y remota, con variables socioeconómicas y la técnica de Asociación Libre de Palabras, con el término inductor “Cuidado de enfermería en Tiempos de COVID-19 en la hemodiálisis”. El análisis de los datos fue realizado con la ayuda del software Ensemble de Programmes Permettant L’Analyse Evocations 2005. **Resultado**: el núcleo central fue compuesto por los términos: lavado de manos, mascarilla, equipo de protección individual, cuidado, desinfección y orientación, que representa la actitud de protección para el cuidado seguro de sí y del otro. Los demás trajeron actitudes, sentimientos y acciones que reforzaron el núcleo central. **Conclusión**: las representaciones del equipo de enfermería con cuidado a los pacientes en hemodiálisis en la pandemia denotaron el carácter protector del equipo consigo y con el otro para garantizar el cuidado seguro y la seguridad del paciente.


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