

Research Article

The Therapeutic Relationship Between Healthcare Professionals and Hemodialysis Patients. Do the Health Care Professionals Put Themselves in Their Patients' Shoes?

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Abstract

Aim of the Study: The aim of the study was to investigate and to compare the perceptions of empathy in the therapeutic relationship between Healthcare Professionals (HCPs) (nurses, nephrologists and residents' nephrologists) and Hemodialysis Patients (HD).

Patients and Methods: In the study were enrolled 148 HD patients (n=148) and 116 healthcare professionals (n=76 nurses, n=23 nephrologists, 17=residents). The diagnostic survey methodology was employed, utilizing two questionnaires the "Therapeutic relationship Questionnaire for HD and kidney transplanted patient (TRQ-P33) and the "Therapeutic relationship Questionnaire for Health Care Professionals" (TRQ-HCP16) developed by the researcher as the primary tool for data collection. For the needs to this study, the "Interpersonal Skills Questionnaire (ISQ)" was translated in Greek and incorporated into the patients' questionnaire to measure the interpersonal relationship doctor- patient.

Statistical Analysis: Data were collected and arranged at Excel sheet of Microsoft Excel version Microsoft 365. The statistical analysis was conducted by IBM-SPSS version 25 (SPSS, Chicago, IL, USA) and R statistical package.

Results: This analysis revealed significant discrepancies between healthcare providers' self-perceptions and patients' perceptions, underscoring critical gaps in perceived empathy in the therapeutic relation between patients and healthcare professionals. Nurses believe that they put themselves in their patients' shoes (79.43%) more than HD patients (73.68%) feel their nurses are doing this. The most significant discrepancies noted in the "Strongly Agree" category ($p=0.021929$ for nurses and $p=0.100559$ for HD patients). Regarding, the nephrologists believe that they put themselves in HD patients' shoes (73.90%) less than HD patients believe (86.48%) as the most significant discrepancies observed in the "Disagree" category ($p=0.004537$ for nephrologists and $p=0.263207$ for HD patients). Also, must be mentioned that 13.04% of nephrologists disagreed, compared to 1.35% of patients as well as neither no patient nor nephrologists strongly disagree. Finally, about the 88.11% of the residents believe that put themselves in their patients' shoes more than HD patients (79.71%) feel their residents are doing this. The most significant discrepancies noted in the "Disagree" category ($p=0.213966$ for residents and $p=0.67362$ for patients).

Conclusion: Based on the findings, the study concludes that there are notable differences in perceptions of empathy in the therapeutic relationship between Healthcare Professionals (HCPs) and Hemodialysis (HD) patients. While healthcare providers generally believe they demonstrate empathy early and consistently, patients may not always perceive this to the same extent.

Keywords: Therapeutic relationship; Empathy; Hemodialysis; Healthcare professionals

Introduction

Chronic kidney disease (CKD), defined as kidney damage or decreased kidney function persisting for three or more months, has emerged as a significant public health concern. The global prevalence of CKD is estimated at 9.1% among adults, with CKD-related deaths and disability-adjusted life years (DALYs) increasing substantially over recent decades. For patients undergoing hemodialysis (HD), the management of CKD is not only medically intensive but also emotionally and psychologically taxing. Empathy, the ability to understand and share another person's feelings, is essential in addressing the multifaceted challenges faced by HD patients and in fostering strong therapeutic relationships. (1,2,3,4,5,6,7,51,48). Empathy is the ability to 'stand in the shoes of another', or to "feel their pain." and to think about a situation from someone else's position and thus to achieve a deeper understanding of their point of view, which is crucial in medical science. (8,9,10,11). Empathy in healthcare has cognitive and affective dimensions which are crucial for enhancing interpersonal communication, reducing patient anxiety, and improving adherence to treatment regimens. Empathetic care has been shown to positively impact patient outcomes, such as improved chronic disease management, higher patient satisfaction, and enhanced overall health-related quality of life (47,49,51). Furthermore, empathy reduces rates of medical errors and contributes to better trust in healthcare systems, making it a pivotal component in modern patient-centered care (46,48). Also, consistently links higher levels of provider empathy to better patient outcomes, including improved management of chronic conditions, increased patient satisfaction, and reduced rates of hospitalization (47,49,50). Moreover, indicates that empathetic communication contributes to better health-related quality of life, particularly for patients managing chronic conditions like CKD (47,50). However, studies often reveal a discrepancy between how healthcare professionals perceive their empathy and how patients experience it. This gap underscores the importance of exploring empathy within the therapeutic relationship to improve patient outcomes and satisfaction. Empathy directly correlates with improved adherence to treatment, reduced patient anxiety, and enhanced overall well-being, particularly in chronic conditions (50,47).

Empathy is a complex and often misunderstood concept, even among healthcare professionals. Empathy has cognitive and affective dimensions, both of which are essential in fostering strong interpersonal relationships and maintaining mental well-being during the challenging experiences associated with chronic illness. Due to its importance, empathy has been the focus of extensive research, leading to the development of various tools for its assessment. (12,13,14,15). Over the past two decades, numerous assessment tools have been developed and utilized by both patients and healthcare professionals to measure empathy in medical care. These tools often reveal that patients rate their doctors as highly empathetic, while doctors tend to rate themselves lower in empathy than their patients do. The success of a therapeutic relationship relies heavily on the behavior and communication between the healthcare professional and the patient. For a therapeutic relationship to be effective, it must be rooted in sincerity, empathy, altruism, and congeniality (16,19). Effective communication from healthcare professionals can alleviate patient anxiety and stress, contributing to greater satisfaction. (20). In this

dynamic, healthcare professionals ought to adopt an open approach, attentively addressing the patient's needs to enhance their quality of life, positively impact treatment outcomes, and expedite healing. The patient plays a critical role in bridging the relationship between the nurse and the doctor, expecting them to address not only physical but also psychological and spiritual needs.

Dependence on dialysis machines, forced regular sessions, limitations of everyday activities due to the chronic illness and complicated treatment often lead to a depressive vision of the patient's future health and bio-psycho-social functioning. People who undergo hemodialysis generally undertake 2–3 treatments per week, lasting about 3–4 h each. Most of the time the HD patients spend many hours per week in contact with nurses and less with the doctors. Building a therapeutic relationship between nurses and patients, with the aim to helping the patient to have better treatment, should be based on empathy. The main elements of the therapeutic relationship are empathy (81.8%), mutual trust (67.5%) and respect (59.7%), openness of both parties (55.8%), verbal communication (54.5%), cordiality (46.8%), non-verbal communication (44.2%), safety (44.2%), and lastly understanding (39%) and acceptance (33.8%). (17,18). This study aims to explore these gaps, focusing on the perceptions of nurses, nephrologists, and residents compared to HD patients. By highlighting these differences, the research seeks to inform strategies that enhance empathetic practices and improve patient care.

Methodology Approach

Sample

A cross-sectional comparative design was used for this study. A convenience sample were recruited of HD patients and healthcare professionals from the hospital's nephrology clinics and kidney dialysis units too. The study population included one hundred and forty-eight patients undergoing dialysis (HD) (n=148 HD patients) and one hundred sixteen (116) healthcare professionals (n=76 nurses, n=23 nephrologists and 17=residents) of four [4] hospitals from Athens (1,2), Ioannina (3) Larisa (4), Thessaloniki (5).

Patients had to meet the following inclusion criteria: HD patients should to have completed at least one year of dialysis session and all patients must be Greek nationality in order to have a uniform framework of cultural characteristics. Concerning the criteria for the healthcare professionals have been providing their services for at least one year at the dialysis units and clinics, and should be nurses, nephrologists, and nephrology residents. The study was voluntary and anonymous for all participants (patients and healthcare professionals). About 10% (148/165) of the HD patients didn't meet the criteria while only 0.9% (12/165) of the questionnaires didn't include to the study while health care professionals met all the criteria and only 2 (116/118) of them did not accept to take part to the study because they were busy.

The distribution and collection of the questionnaires took place from March 2020 until March 2022.

1. General Hospital of Athens "Laiko", nephrology clinic and dialysis unit
2. General Hospital "Aretaieio, dialysis unit

3. General Hospital of Ioannina of the nephrology clinic and kidney dialysis unit,

4. General Hospital of Larisa of the nephrology clinic and kidney dialysis unit

5. Hospital of Thessaloniki "Papageorgiou clinic and kidney dialysis unit

Instruments

For the purpose and the needs of the study, initially, two semi-structured interview guides were developed for both patients and healthcare professionals too, to explore a series of questions regarding the therapeutic relationship. The structure of both interview guides consisted of two parts. In the patients' interview guide, Part A focused on the social, demographic, and clinical characteristics of the patients, while Part A of the healthcare professionals' guide focused on social and demographic characteristics. Part B of both guides explored the therapeutic relationship and the quality of healthcare provided patients undergoing dialysis. (14 questions for the HD patients and 12 for the healthcare professionals too).

Next two newly questionnaires were developed exclusively for this study, one for patients and another one for the healthcare professionals (nephrologists, nurses, residents' nephrologists), while the "Interpersonal Skills Questionnaire (ISQ)" incorporated into the patients' questionnaire to measure the interpersonal relationship doctor- patient. Both the TRQ-P33 (for patients) and TRQ-HCP16 (for healthcare professionals) were developed and validated as part of the study. Validation results showed strong reliability with Cronbach's Alpha values of $\alpha = 0.884$ for patients and $\alpha = 0.895$ for healthcare professionals. These high reliability scores indicate that the questionnaires are internally consistent and appropriate for measuring the core aspects of therapeutic relationships in this context. These questionnaires were chosen as no other tools were found to specifically address the therapeutic relationships within the context of nephrology and hemodialysis patients. making this approach a novel contribution to the field. The ISQ was included due to its comprehensive focus on interpersonal skills, which aligns with the study's goal to assess empathy comprehensively. A stratified sampling technique was employed to ensure representative diversity among both patients and healthcare professionals. This approach was chosen because it ensures that key subgroups (e.g., patients from different dialysis units, healthcare professionals with varying levels of experience) are adequately represented, thus minimizing bias and enhancing the study's validity.

The "Patient's questionnaire" consisted of three [3] parts structured as follows:

→ Part A: Social, demographic, and clinical characteristics of the patient consisted of 16 closed-ended questions,

→ Part B: concerned the "Interpersonal Skills Questionnaire (ISQ)" for which permission was requested and translated into Greek, all necessary actions were taken, and it was incorporated into the questionnaires, examining the doctor-patient interpersonal relationship and consisting of 13 closed-ended questions and one [1] open-ended question

→ Part C: Exploration of therapeutic relationship and quality of healthcare in dialysis patients consisting of 15 closed-ended questions composed of 92 sub-questions where 4 of the 92 sub-questions are semi-open-ended.

Health Professional's questionnaire consisted of three (3) parts structured as follows:

→ Part A: Social, demographic, and professional characteristics of the healthcare professionals consisted of 5 closed-ended questions,

→ Part B: Exploration of therapeutic relationship and quality of healthcare in dialysis patients consisting of 10 questions with 61 closed-ended sub-questions.

The items are rated on a 5-point Likert scale ranging from "Strongly Agree" [1] to "Strongly Disagree" [5].

Ethical Consideration

Before the interview, each patient and health care professionals were informed about the purpose of the interview and asked to sign a consent form. Each participant was assigned an alphanumeric code to ensure anonymity. The Right of the study subjects to refuse to participate in the research was assured. Confidentiality of data and anonymity of study subjects was maintained. No healthcare professional or HD patient had access to the collected data and databases. Privacy of the subjects in data collection was also maintained. The study was approved by an IRB at the begging of thesis.

Procedure

Permission to conduct the study with healthcare professionals and HD patients was obtained in advance from the chief of the dialysis units and nephrology clinics. Both patients and healthcare professionals were met individually with the researcher to take their consent to participate in the study. During the interview, attention was paid to maintaining communication with the patient and avoiding interruptions, leading questions, and subjective evaluations. The researcher used the interview guides for both HD patients and healthcare professionals. The interviews were conducted by the researcher from 16 patients undergoing hemodialysis and 15 healthcare professionals. The interviews with patients lasted an average of 15-25 minutes during their HD section, while those with healthcare professionals lasted 20-35 minutes in a brake of their job. To ensure the validity and reliability of the qualitative data collection, participants (both patients and healthcare professionals) were given the opportunity to provide feedback and additional comments after a week. This ensured that their thoughts and what they wanted to express were fully captured. Feedback of the answers were processed and the two questionnaires were designed.

Then the healthcare professionals were informed from the chief of the dialysis units or from the nephrology clinic about the study and those who consented to take part in the study were given anonymized questionnaire to complete in their spare time. Patients completed the questionnaire by the researcher during their HD section. Given the advanced age of many HD patients and their, often chronic, tiredness, filling a self-reported questionnaire can be a heavy burden for them [21]. Most of HD patients were not feel comfortable in filling the questionnaire because they were connected to an HD machine

via a fistula in their arm. To face this difficulty, it was decided along with the chief of the unit, to read out loud the questionnaire from the researcher to each HD patient. Despite patients share a common space during HD sessions in the dialysis units, rooms are big enough to assure that a discussion carried out in a normal tone could not be easily overheard. In nephrology clinics of the hospitals where beds were closer, partitions usually used when the patient is undercover were set in place to assure sufficient privacy.

The "Interpersonal Skills Questionnaire (ISQ)" translated (forward– backward procedure) into Greek from two independent translators, native speakers of Greek and excellent knowledge of English. The two translators combined the translations into one version and resolved differences.

A third independent translator, unaware of the original, translated the Greek version back into English and compared the back-translated version with the original to identify any discrepancies. Next another two experts (a professor in nephrology and a psychologist) evaluated the translation for accuracy and cultural appropriateness and conducted a pilot test with a small Greek-speaking sample to gather feedback on clarity and usability. Finally, the "Interpersonal Skills Questionnaire (ISQ)" incorporated into the patients' questionnaire with 16 questions to measure the interpersonal relationship doctor-patient.

The first draft of the two questionnaires were modified according to comments made by three other experts in hemodialysis (a professor in nephrology, a nurse and a resident in nephrology from a nephrology unit). The two finalized questionnaires were administered to 20 patients undergoing maintenance hemodialysis and to 15 healthcare professionals as a pretest. Next the reliability and validity of the questionnaires were confirmed. (using Cronbach's Alpha patients' questionnaire was, 884 while the healthcare professionals' questionnaire was, 895).

Finally, the «Therapeutic relationship Questionnaire for HD and transplanted patients» (THQ-P33) consisted of (33) questions, and the «Therapeutic Relationship Questionnaire for Healthcare Professionals' comprised [15] questions (THQ-HCP15) too. It is important to mention that the «Therapeutic relationship Questionnaire for HD and transplanted patient» includes questions for both targets of patients (HD and kidney transplanted patients). As far as the «Healthcare Professionals' Therapeutic Relationship Questionnaire» (TRHP 15) specialized for the CKD and kidney transplant. This questionnaire emphasizing in chronic diseases so can be used and for other chronic diseases. In this study focus to HD patients.

Statistical Analysis

Questionnaire data from both patients and healthcare professionals were analyzed using confirmatory and exploratory factor analyses. Descriptive statistics (mean, standard deviation, median, minimum, and maximum values) were used for quantitative data, while frequencies and percentages summarized qualitative data. Nonparametric Pearson's Chi-square test was applied to assess relationships between categorical variables, with Spearman's rank correlations used for exploring associations between continuous variables ($p < 0.05$ was considered statistically significant). Missing

data were not imputed. The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's test of Sphericity were employed to confirm the appropriateness of the dataset for factor analysis. KMO values approaching 1.0 indicated strong partial correlations, while values below 0.5 were deemed unsuitable. Bartlett's test assessed whether the correlation matrix significantly deviated from an identity matrix. To explore associations between categorical variables, contingency tables were constructed, with Fisher's Exact Test used for small sample sizes. Mosaic plots with standardized residuals were generated to visualize these relationships, with cell sizes representing

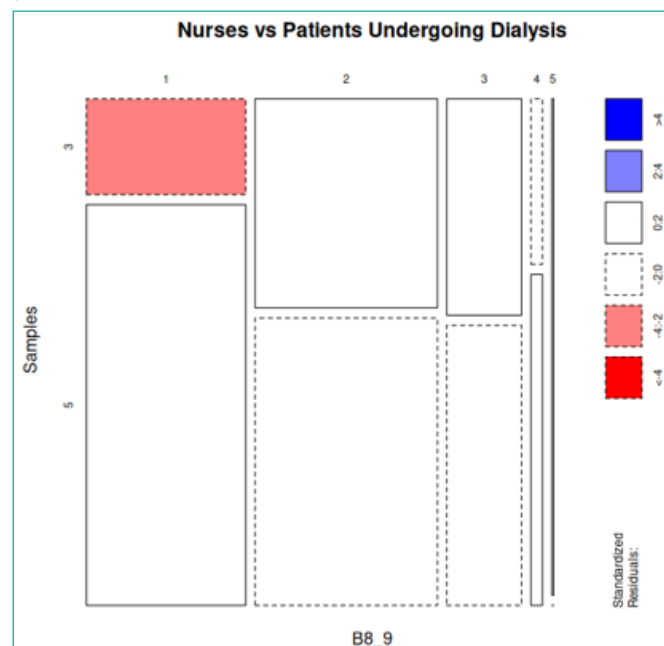


Figure 1: Mosaic Plot of Nurse and HD Patient Perspectives on Empathy.

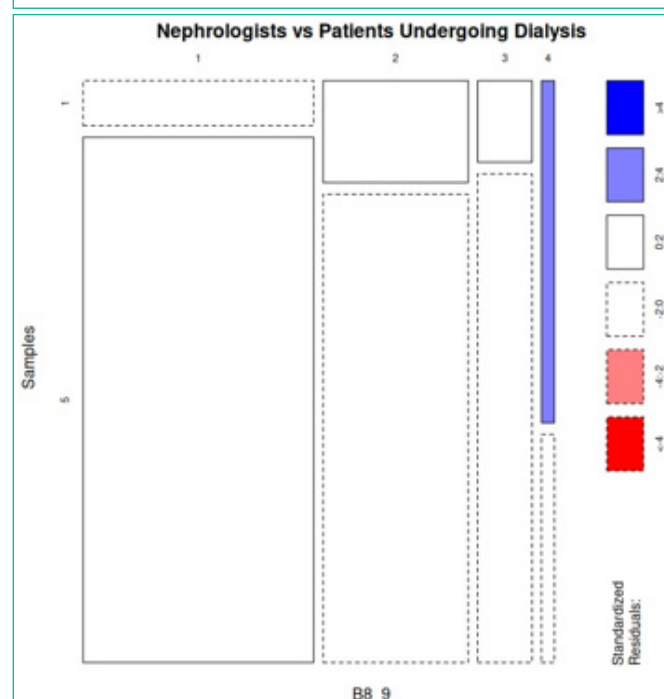


Figure 2: Mosaic Plot of Nephrologist and HD Patient Perspective on Empathy.

frequency counts and colors indicating the magnitude and direction of the residuals. Red cells signified fewer-than-expected observations, while blue cells indicated more-than-expected observations. All statistical analyses and visualizations were conducted using R (R Core Team, 2023).

Characteristics of Groups Study (Patients and Healthcare Professionals)

Among a total of 148 patients, 94 patients (63.5%) were men and 54 (36.5) were female. The age range of the patients was between 18 - 65 and an average age of 44.08 ± 16.04 , respectively. The 30.4 of the patients have higher education. (Annex I, Table 1).

Healthcare Professionals

Among a total of 116 patients, 95 patients (81.9%) were men and 21 (18.6%) were women. The age range of the healthcare professionals was between 25-6 and the average was 44.50 ± 14.50 . The largest percentage of health professionals were nursing staff (65.5%), nephrologists are 19.8% and residents' nephrology 14.7%. Most of the health care professionals work in nephrology clinics (50%) and dialysis units (53%). Most of healthcare professionals work more than 10 years (52.6%). (Annex I, Table 2).

Results

For the needs of the study two questions, were isolated and comparing from each questionnaire (patients and healthcare professionals) that provide answers regarding empathy in the therapeutic relationship between the healthcare professionals and the HD patients. In this frame the analysis sought to compare perceptions of empathy between nurses (3) (n=76) and HD patients (undergoing dialysis (HD) (5) (n=148), specifically focusing on whether nurses believe they are putting themselves in their patients' shoes and whether patients feel their nurses are doing so.

Nurses vs. Hemodialysis (HD) Patients

A contingency table was used to compare how nurses (n=76) and HD patients (n=148) perceive nurses' empathy, using a scale from "Strongly Agree" (1) to "Strongly Disagree" (5) (Figure 1).

→ Strongly Agree: Most patients (45.27%) believed that nurses strongly empathized with them, whereas only 21.05% of nurses felt they demonstrated this high level of empathy.

→ Agree: More nurses agreed with the statement (52.63%) compared to patients (37.16%).

→ Neither Agree nor Disagree: Neutral responses were higher among nurses (22.37%) than patients (14.86%).

→ Disagree/Strongly Disagree: Both groups had minimal disagreement.

A Fisher Exact Test revealed a statistically significant difference in perceptions ($p=0.0024$). Standardized residuals pointed to a notable gap in the "Strongly Agree" category, where fewer nurses (than statistically expected) indicated strong empathy (residual = -2.29, $p=0.0219$), whereas patients exceeded expected values (residual = 1.64, $p=0.1006$). These findings highlight a meaningful mismatch between nurses' self-perception of empathy and patients' experiences.

Nephrologists vs. HD Patients

Empathy perceptions between nephrologists (n=23) and HD patients (n=148) were also compared (Figure 2).

→ Strongly Agree: Over half of the patients (55.40%) felt their nephrologists strongly empathized with them, whereas only 30.43% of nephrologists believed they showed this level of empathy.

→ Agree: A larger proportion of nephrologists agreed (43.47%) compared to 31.08% of patients.

→ Neither Agree nor Disagree: Neutral responses were slightly more common among nephrologists (13.04%) than patients (12.16%).

→ Disagree: A notable 13.04% of nephrologists disagreed that they fully empathized, whereas only 1.35% of patients felt this lack of empathy. No participants strongly disagreed.

A Fisher Exact Test indicated a significant overall difference ($p=0.0112$). Standardized residuals underscored key discrepancies: nephrologists were overrepresented in the "Disagree" category (residual = 2.84, $p=0.0045$), while patients were underrepresented in that same category (residual = -1.12). In the "Strongly Agree" category, patients exceeded expected levels of agreement (residual = 0.57), and nephrologists were lower than expected (residual = -1.44). Overall, nephrologists perceived their own empathy less strongly than patients did.

Residents vs. HD Patients

Finally, a comparison between residents (n=17) and HD patients (n=148) revealed a significant difference ($p=0.0112$).

→ Strongly Agree: While 36.48% of patients strongly agreed that residents empathized with them, only 29.41% of residents felt they achieved this level of empathy.

→ Agree: More residents agreed with the statement (52.94%) compared to patients (43.23%).

→ Neutral/Disagree: Smaller proportions showed neutral or disagree responses, but the "Strongly Disagree" category showed the biggest discrepancy; residents had a notable positive residual (1.24), indicating more residents than expected strongly disagreed with the statement, whereas patients did not.

These discrepancies underscore a mismatch between residents' self-assessed empathy and patients' perceptions, particularly regarding the strength of that empathetic connection.

Key Takeaway: Across all three comparisons (nurses, nephrologists, and residents vs. HD patients), patients generally reported stronger perceptions of empathy than did the healthcare professionals themselves. While both groups agreed empathy is present, fewer providers "Strongly Agreed" compared to patients, suggesting opportunities for improving awareness and communication to bridge this empathy gap.

Discussion

A therapeutic relationship is a complex and multifaceted aspect of healthcare, with empathy being a crucial factor. [22] The study highlights significant differences and perception gaps in how empathy

is perceived by healthcare professionals and patients. For example, 82.36% of HD patients believe that nurses empathize with them, compared to 73.68% of nurses who believe the same. This suggests that patients often feel more connected to nurses due to frequent interactions and the psychological support nurses provide during stressful treatments. Radtke K. (2013) mentions a rise in patient satisfaction in nursing communication to 87.6%, an increase from 75% after monitoring patients in the previous 6 months [24]. Because the nurses know about these problems, they can provide better care, which lowers the risk of bad effects that can sometimes be fatal [23]. In this situation, the important role of nurses becomes clear; they are very important for fixing problems that come up during hemodialysis. Nurses emerged as key players in fostering empathetic connections, a finding supported by Hrenczuk (2021), who emphasized the pivotal role of nurses in reducing patient stress and improving treatment adherence. HD patients spend significant time with nurses during treatment, creating opportunities for deeper emotional connections. This study highlights that patients consistently perceive nurses as highly empathetic, though nurses often undervalue their own role in emotional care. Such findings reinforce the need for acknowledging and supporting the emotional labor of nurses in chronic care settings. These results align with earlier research, such as Delmas et al. (2020), which noted that patients often assess healthcare professionals as more empathetic than professionals do themselves. This gap can stem from differences in expectations: while patients prioritize emotional connection, HCPs may focus more on efficient treatment delivery. Most of the patients (55.40%) "Strongly Agreed" that their nephrologists put themselves in their shoes, compared to 30.43% of nephrologists who felt they strongly empathized with their patients. The reasons for these gaps may lie in the emotional and psychological demands of chronic care, which can lead to clinical detachment among professionals, as suggested by Sinclair et al. (2020). Moreover, this gap can stem from differences in expectations: while patients prioritize emotional connection, HCPs may focus more on efficient treatment delivery. Likewise, nephrologists and residents perceive themselves as more empathetic than their patients do, with noteworthy gaps in perception.

Even if healthcare professionals do feel empathetic, they may struggle to convey this in a way that resonates with patients, leading to perceived gaps in empathy. [26] Burnout among HCPs remains a critical factor influencing empathy. This study's findings align with research by Boyle and Bush (2022), who reported that prolonged stress in high-pressure healthcare environments diminishes professionals' ability to express empathy effectively. Nephrology units, where HCPs navigate the dual challenges of complex treatment regimens and emotionally demanding patient interactions, are particularly prone to such issues. Addressing burnout through mental health support and manageable workloads is essential to preserving empathy [27,28]. According to Robieux, Karsenti, Pocard, & Flahault, (2018), HCPs who take care their patients with empathy are more effective, protected from occupational burnout, and receive satisfaction from their work [45]. To advance empathy in medical students, five approaches were effective: early clinical exposure (direct patient contact or simulated patient); playing a role of a patient; exposure to literary and performing arts; improving communication, narrative, and stress management skills; and exposure to role models [36,32]. It is

worth trying new methods because some research indicates decline in empathy during medical school years [37,38]. It is important to explore new methods, as research suggests a decline in empathy during medical school years. Recent studies in medical education also highlight this issue, underscoring the urgent need to enhance the inclusion of empathy within the medical curriculum [39].

Integrating patient feedback into care models is another critical strategy to align HCPs' perceptions with patient experiences. Plewnia et al. (2016) demonstrated that patient-centered care models with regular feedback loops improve communication and trust, enhancing therapeutic relationships. This study suggests that such mechanisms could help close the empathy perception gap, ensuring that patients feel understood and supported throughout their care journey. Another approach would be a more patient-centered care models where patients are active participants in their care decisions which include regular feedback mechanisms that allow patients to express their perceptions of the empathy they receive. A more empathetic healthcare environment with regular feedback can help healthcare professionals understand patient needs and expectations better, leading to more personalized and empathetic care. [35].

Empathy is a required ability for healthy interpersonal relationships since it regulates and controls emotions [29,30]. Some university students may need psychological support and education to develop their empathy levels [31]. When the medical students were asked, about empathy some of them responded with most prevalent answers like this: a) "Empathy is an important therapeutic factor in medical treatment," (b) "patients feel better when their physicians understand their feelings," (c) "understanding body language is as important as verbal communication in physician-patient relationships," etc while on the other hand were answered (e) "Emotion has no place in the treatment of medical illness," (f) "physicians should not allow themselves to be influenced by strong emotions of their patients," "physicians' emotional ties with the patients do not have a significant influence in medical or surgical treatment," and (g) "it is difficult for a physician to view things from a patient's perspectives etc. [32,40]. Having these contrasts and opposite answers it is understandable that empathy training in medical education is needed. The goal is to bridge this gap and enhance the quality of patient care and outcomes while parallel can help healthcare professionals to develop a deeper understanding of patient experiences. The findings of this study resonate with growing concerns in the literature about the decline of empathy during medical training. Papageorgiou et al. (2018) and Spatoula et al. (2019) reported that empathy often diminishes over the course of medical education, underscoring the importance of sustained training and mentorship to counteract this trend. Encouraging early clinical exposure, role-playing as patients, and integrating empathy-building exercises into medical curricula could foster long-lasting empathetic skills [31,33].

Moreover, we must mention potential cultural factors in Greece, such as strong familial involvement in patient care and expectations of emotional support, may influence these findings. Traditional Greek family structures often position relatives as active participants in caregiving, creating a supportive but emotionally charged environment. This dynamic might amplify patients' expectations for empathy from healthcare professionals. Additionally, societal

norms in Greece frequently emphasize personal relationships and trust, potentially shaping how empathy is perceived and valued within therapeutic settings [52]. Addressing these cultural nuances can enhance the development of targeted interventions to improve empathy in patient-healthcare interactions. To face these gaps requires targeted interventions, including empathy training integrated into medical education and continuous professional development. Emphasizing emotional intelligence, active listening, and patient-centered communication can bridge perception gaps and improve care quality [53,54].

Conclusion

This study underlines the vital role of empathy in the therapeutic relationship between Healthcare Professionals (HCPs) and Hemodialysis (HD) patients in Greece, revealing significant perception gaps that impact the overall quality of care. Patients evaluated nurses, nephrologists, and residents as more empathetic than these healthcare professionals rated themselves. These discrepancies highlight the complexities of delivering and perceiving empathetic care, a finding confirmed by the literature on patient-centered healthcare. Patient satisfaction, adherence to treatment, and clinical outcomes are affected by empathy. However, this study reveals that while HCPs often believe that they are providing empathetic care, patients may not perceive it, indicating a disconnect in communication and emotional commitment. To bridge these perception gaps, it is imperative to prioritize empathy training across all levels of healthcare education and practice. Innovative approaches, such as virtual reality simulations and narrative-based learning, can help HCPs gain a deeper understanding of patient experiences. Additionally, integrating regular patient feedback into care processes can enhance communication and ensure that care is aligned with patient expectations and needs. Eventually, adopting a culture of empathy in healthcare requires a multifaceted approach, involving continuous professional development, organizational support to mitigate burnout, and the promotion of patient-centered care models. Healthcare systems can enhance therapeutic relationships, ensuring that empathy remains at the heart of medical practice and contributes to improved outcomes for both patients and professionals.

Limitations

This study has some limitations. The first limitation concerns the sample of HD patients. The sample was comprised only patients with a good command of Greek at least one year in the same unit dialysis or treatment in the same nephrology clinic, in general good health and willing to participate in the study. Patients excluded may have a different relationship with HD nurses from the one observed in the study. A second limitation was that both healthcare professionals and HD patients came from five (5) different hospitals from Greece which analysed them as a uniform population consisting of independent observations. Nevertheless, the observations might have differed across the hospitals for the included population. A third limitation concern about the two questionnaires (TR-P33 and TRHCP-15), the semi structure guides and the translation of the ISQ questionnaire. Although all the requirement procedures for the validation and the reliability for the two questionnaires have been carried out as well as the ISQ translation too, it is necessary to mention that further studies are required using these methodological instruments.

Future Perspectives

Through to study compared the perceptions of empathy between healthcare professionals (nurses, nephrologists and residents' nephrologists) and HD patients revealed significant discrepancies between them, underscoring critical gaps in perceived empathy in the therapeutic relation. Actually, we don't know for sure that the results that came up was specific to the Greek context or was an exception from the study limitations. Further research (Qualitative, quantitative or mixed-method analyses) is clearly needed to clarify certain points about the empathy in the therapeutic relationship between patients and healthcare professionals. Specifically, we ought to emphasize to the skills of the health care professionals as well as to the ways that need to have to make patients feel more comfortable. Despite the importance that patients attach to caring, there exist few interventions aimed at emphasizing caring skills.

Author Statements

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Conflicts of Interest

There are no conflicts of interest.

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