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The influence of spirituality and religious beliefs on coping and quality of life in people with chronic kidney disease

A influência da espiritualidade e crenças religiosas no enfrentamento e na qualidade de vida das pessoas com doença renal crônica

La influencia de la espiritualidad y las creencias religiosas en el afrontamiento y la calidad de vida de las personas con enfermedad renal crónica

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Abstract
Objective: To analyze the relationship between religious and/or spiritual beliefs and the quality of life of individuals undergoing dialysis, evaluate their adaptation to treatment, and explore the connection between spirituality, religiosity, and quality of life. Methodology: This is a Systematic Literature Review (SLR) using the PICO methodology to examine the relationship between religious and spiritual beliefs and quality of life in individuals with chronic kidney disease (CKD) undergoing dialysis. Studies published between 2014 and 2023 in Portuguese, English, and Spanish were selected from the B-On and PubMed databases. Seven studies were identified, exploring various dimensions of this relationship through qualitative and quantitative approaches. Results and Discussion: The studies indicate that spirituality and religiosity play significant roles in coping with CKD and improving the quality of life of individuals with the condition. A positive correlation between spirituality and hope is also highlighted, emphasizing the importance of faith in adapting to treatment and finding meaning in life. The cultural diversity of the selected studies reveals nuances in spiritual practices, influencing the global understanding and applicability of the results. Conclusions: The findings suggest that spirituality/religiosity can strengthen emotional resilience, improve the well-being of individuals with CKD, reduce depression, and provide emotional support. Understanding cultural differences and ensuring sensitivity in adapting spiritual interventions are crucial for offering more effective and appropriate care, respecting various religious and spiritual practices, as well as the absence of them.
Keywords: Chronic kidney disease; Religion; Religion and Medicine; Spirituality; Chronic kidney failure.

Resumo
Objetivo: Analisar a relação entre crenças religiosas e/ou espirituais na qualidade de vida das pessoas submetidas à diálise, avaliar a adaptação dessas pessoas ao tratamento e explorar a conexão entre espiritualidade, religiosidade e qualidade de vida. Metodologia: Trata-se de uma Revisão Sistemática da Literatura (RSL) utilizando a metodologia PICO para analisar a relação entre crenças religiosas, espirituais e a qualidade de vida em portadores de doença renal

crônica (DRC) submetidos à diálise. Foram selecionados estudos publicados entre 2014 e 2023 em português, inglês e espanhol nas bases de dados B-On e PubMed. Foram identificados sete estudos que exploraram diversas dimensões dessa relação, utilizando abordagens qualitativas e quantitativas. Resultados e Discussão: Os estudos indicam que a espiritualidade e religiosidade desempenham papéis significativos no enfrentamento da DRC e na melhoria da qualidade de vida das pessoas com DRC. Destacam-se também a correlação positiva entre espiritualidade e esperança, é enfatizada a importância da fé na adaptação ao tratamento e no encontro de significado na vida. A diversidade cultural dos estudos selecionados revela nuances na prática espiritual, influenciando a compreensão e aplicabilidade dos resultados globalmente. Considerações finais: Os resultados sugerem que a espiritualidade/religiosidade pode fortalecer a resiliência emocional e melhora o bem-estar da pessoa com DRC, e que pode reduzir a depressão e oferecer suporte emocional. A compreensão das diferenças culturais e a sensibilidade na adaptação de intervenções espirituais são cruciais para oferecer um cuidado mais eficaz e adequado, respeitando as diversas práticas religiosas, espirituais e/ou a ausência delas.
Palavras-chave: Doença renal crônica; Religião; Religião e Medicina; Espiritualidade; Falência renal crônica.

Resumen
Objetivo: Analizar la relación entre las creencias religiosas y/o espirituales y la calidad de vida de las personas sometidas a diálisis, evaluar su adaptación al tratamiento y explorar la conexión entre espiritualidad, religiosidad y calidad de vida. Metodología: Se trata de una Revisión Sistemática de la Literatura (RSL) utilizando la metodología PICO para analizar la relación entre las creencias religiosas, espirituales y la calidad de vida en pacientes con enfermedad renal crónica (ERC) sometidos a diálisis. Se seleccionaron estudios publicados entre 2014 y 2023 en portugués, inglés y español en las bases de datos B-On y PubMed. Se identificaron siete estudios que exploraron diversas dimensiones de esta relación, utilizando enfoques tanto cualitativos como cuantitativos. Resultados y Discusión: Los estudios indican que la espiritualidad y la religiosidad desempeñan un papel significativo en el afrontamiento de la ERC y en la mejora de la calidad de vida de las personas con ERC. También se destaca la correlación positiva entre la espiritualidad y la esperanza, y se enfatiza la importancia de la fe en la adaptación al tratamiento y en encontrar sentido a la vida. La diversidad cultural de los estudios seleccionados revela matices en las prácticas espirituales, lo que influye en la comprensión y aplicabilidad global de los resultados. Conclusiones: Los resultados sugieren que la espiritualidad/religiosidad puede fortalecer la resiliencia emocional, mejorar el bienestar de las personas con ERC, reducir la depresión y brindar apoyo emocional. La comprensión de las diferencias culturales y la sensibilidad en la adaptación de las intervenciones espirituales son cruciales para ofrecer una atención más eficaz y adecuada, respetando las diversas prácticas religiosas, espirituales y/o la ausencia de ellas.
Palabras clave: Enfermedad renal crónica; Religión; Religión y Medicina; Espiritualidad; Fallo renal crónico.

1. Introduction

Chronic Kidney Disease (CKD) is a progressive and irreversible condition affecting millions of people worldwide, representing a significant public health concern. According to the World Health Organization (WHO) (2019), about 10% of the global population suffers from some form of CKD, making it one of the leading causes of morbidity and mortality. CKD is characterized by the gradual decline of kidney function over time, progressing to advanced stages that require treatments such as hemodialysis or kidney transplantation for survival.

Early symptoms of CKD may be subtle, including fatigue, weakness, loss of appetite, and changes in urination. As the disease advances, individuals may experience more severe symptoms such as edema, high blood pressure, dyspnea, pruritus, and anorexia. These symptoms not only affect patients physically but also impose a significant emotional and psychological burden, negatively impacting their quality of life. The necessity for regular treatments, such as dialysis, profoundly affects social and emotional life, limiting patients' ability to engage in normal daily activities and increasing the risk of depression and anxiety (Abdel-Kader et al., 2009; Webster Nagler et al., 2016; Kelen de Aguiar et al., 2020). In the face of these challenges, the search for effective coping strategies becomes essential.

Spirituality and religious beliefs emerge as important resources for many individuals with CKD. Traditionally used interchangeably, the terms spirituality and religiosity have become more distinct in the last 50 years (Bregman, 2014). While spirituality can be defined as a personal search for understanding life's meaning and connection to something greater than oneself, religiosity tends to describe a person's level of engagement and adherence to the practices and doctrines of a specific religion. Despite these recent distinctions, their broader similarities in providing individuals with a sense of meaning and

belonging to something greater make it relevant to use both terms. Both have demonstrated significant emotional and psychological support (Vitorino et al., 2016). These beliefs and practices can help individuals find meaning and purpose, offering comfort and hope during treatment (Koenig, 2012; Silva et al., 2016; Assis Mello & Angelo, 2018; Cruz da Silva & Lucia Lucas da Silva, 2022).

Quality of life (QoL) has, since the late 1960s, been an important measure of individual well-being due to the increased life expectancy of the population and chronic diseases (Karimi & Brazier, 2016). The term is intended to provide a more comprehensive view of well-being than physical health measures alone. Several definitions focusing on subjective and objective elements have been used to describe what constitutes QoL. A prominent definition provided by the WHO describes QoL as "an individual's perception of their position in life within the context of the culture and value systems in which they live, and in relation to their goals, expectations, standards, and concerns" (WHO, 1998). This definition underpins the WHO's QoL assessment tool (WHOQOL), which is one of the most widely used tools to assess QoL in health research (Kalfoss et al., 2021).

Numerous studies have found a positive association between religiosity and/or spirituality and QoL in both healthy adults and in various health and disease conditions, such as cardiovascular diseases and cancer (Abu et al., 2018; Bai et al., 2018; Borges et al., 2021). Furthermore, recent studies indicate that spirituality and religious beliefs play a significant role in the ability of individuals to cope with CKD. These dimensions offer support beyond conventional medical interventions, helping patients build resilience and manage the daily challenges posed by their health condition. Moreover, the presence of a spiritual or religious support network can increase treatment adherence and facilitate more effective adaptation to life with CKD, while also contributing to reduced stress and anxiety levels, thus improving overall QoL (Vitorino et al., 2016; Moura et al., 2020; Souza et al., 2024).

In this context, the present study aims to analyze the relationship between religious and/or spiritual beliefs and quality of life in patients undergoing dialysis, assess these patients' adaptation to treatment, and explore the connection between spirituality and quality of life.

2. Methodology

The methodology used in this study was a Systematic Literature Review (SLR), which is an essential approach for summarizing empirical or theoretical literature and comprehensively understanding a particular phenomenon. According to Sousa et al. (2017), this method is crucial for achieving Evidence-Based Practice (EBP), as it allows for the compilation and analysis of facts/data, facilitating the formulation of conclusions that support decision-making to improve clinical practice.

The research question posed was: "To what extent do the religious and/or spiritual beliefs of individuals with CKD influence their coping with the disease and their quality of life?" To formulate the research question, the PICO mnemonic was used, which was fundamental for selecting the studies analyzed, data extraction, and evidence mapping. This structure ensures a clear and precise definition of the research question, contributing to the effectiveness of the review by ensuring a comprehensive and relevant literature search. The PICO elements were defined as follows:

P (Population): Individuals aged 19 years and older with chronic kidney disease.

I (Interventions): Spiritual and/or religious interventions implemented in individuals with kidney disease.

C (Comparison): Not applicable.

O (Outcomes): Spirituality and/or religious beliefs as coping mechanisms.

Inclusion and exclusion criteria were established to ensure that the selected studies were the most appropriate for answering the research question and meeting the objectives. Studies were included if they were conducted in adults over 19

years of age with chronic kidney disease, involved interventions related to kidney disease with a religious and/or spiritual approach, were published between 2014 and 2023 in Portuguese, English, or Spanish, and were available in full text. Studies focusing on pediatric populations, those addressing religious and/or spiritual beliefs in other pathological contexts, and duplicate articles were excluded.

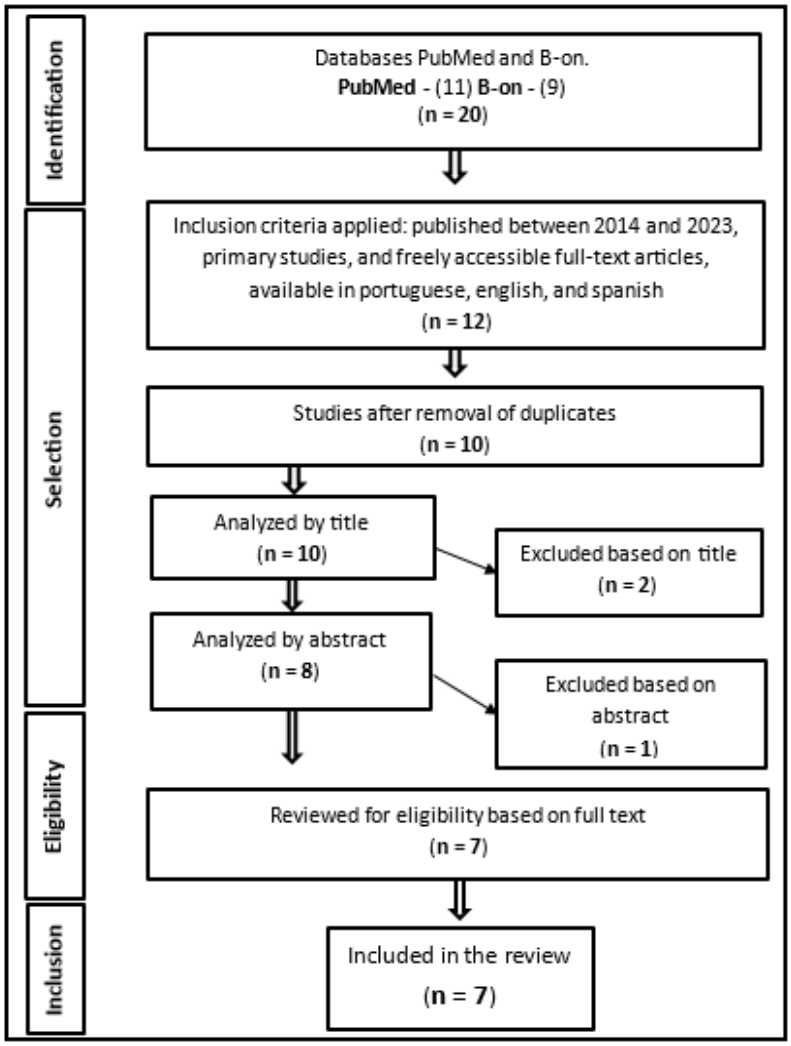
For the scientific search, the following DeCS/MeSH descriptors were used: "Chronic kidney disease," "Religion," "Religion and medicine," "Spirituality," and "Chronic kidney failure," combined using the Boolean operators "AND" and "OR." The search was conducted using the B-On and PubMed databases with the following search expressions:

S1 - B-On: TI "Chronic kidney disease" AND TI "religion" OR TX ("Religion and Medicine") AND TI "spirituality" AND TI "Chronic kidney failure."

S2 - PubMed: ((((Chronic kidney disease[Title]) OR (Religion[Title])) OR (Religion[Title] AND Medicine[Title])) AND (Spirituality[Title])) AND (Chronic kidney failure[Title]).

Figure 1 presents the PRISMA flowchart, which demonstrates the article selection process from the B-On and PubMed databases, including the application of inclusion and exclusion criteria, removal of duplicates, and analysis and discussion by the authors. In the end, seven articles were included for the review.

Figure 1 – PRISMA flowchart representing the selection process of articles included in the study.



Source: Created by the authors.

The selected articles were identified by the letters "**P**" or "**B**," corresponding to the databases: "P" for PubMed and "B" for B-On, respectively. Table 1 provides a brief description of the selected articles. A rigorous assessment of study data was conducted, as required in literature reviews. This analysis provided a logical and descriptive summary of the results. The data extraction tool was provided by the Joanna Briggs Institute (JBI) and was modified to meet the needs encountered during the data extraction process from each study.

Table 1 - Selected Articles.

Title	Author (s)	Country / Year	Type of study
P1 – Hope and Spirituality in Chronic Kidney Disease Patients Undergoing Hemodialysis: A Correlational Study	Ottaviani et al.	Brazil / 2014	Cross-sectional correlational study
P2 – Quality of Life/Spirituality, Religion, and Personal Beliefs of Adults and Elderly Chronic Kidney Disease Patients Undergoing Hemodialysis	Rusa et al.	Brazil / 2014	Cross-sectional descriptive study
B1 – Religion in the Treatment of Chronic Kidney Disease: A Comparison Between Doctors and Patients	Souza Junior et al.	Brazil / 2015	Descriptive qualitative study
B2 – Associations among Spirituality, Health-Related Quality of life, and Depression in Pre-Dialysis Chronic Kidney Disease Patients: An Exploratory in Thai Buddhist Patients	Ssisunantarom et al.	Thailand / 2015	Cross-sectional descriptive study
P3 – Faith and Spirituality in the Meaning of Life of the Elderly with Chronic Kidney Disease	Moura et al.	Brazil / 2020	Qualitative study
B3 – Spirituality, Coping, and Resilience Among Rural Residents Living with Chronic Kidney Disease	Pham et al.	EUA / 2020	Qualitative study
B4 – Spirituality and religion/Religiosity: Perceptions of People with Chronic Kidney Disease Undergoing Hemodialysis Treatment	Paz et al.	Brazil / 2023	Descriptive qualitative study

Source: Created by the authors.

This methodology ensures a rigorous and systematic approach to investigating the influence of spirituality and/or religious beliefs on coping with CKD, providing a solid foundation for the analysis and interpretation of the results.

3. Results and Discussion

We present a synthesis of the analyzed studies, which serves as the basis for discussing and interpreting the findings of our research. The review covers a variety of investigations into the influence of spirituality and/or religiosity on the quality of life of individuals with CKD. Below, we explore the key findings of the reviewed studies, highlighting the correlations identified between spirituality and/or religiosity, quality of life, and emotional well-being. This critical analysis aims to integrate and contextualize the existing evidence, providing a comprehensive view of the impacts of spirituality and/or religiosity on managing CKD, and emphasizing the need for holistic approaches in the care of these individuals.

Study P1: Hope and spirituality in patients with CKD undergoing hemodialysis

Study P1 identified moderate positive correlations between hope and spirituality ($r = 0.43$, $p < 0.001$), and between hope and optimism ($r = 0.37$, $p < 0.001$) among 127 patients with CKD undergoing hemodialysis. The Herth Hope Index (HHI) was used to assess participants' sense of hope, while the Pinto and Pais-Ribeiro Spirituality Scale (PP-RSS) measured their level of spirituality. The group scored an average of 38.06 (SD = 4.32) on the HHI (min-max = 12-48), indicating a high sense of hope. The corresponding scores on the PP-RSS (min-max = 1-4) were 3.67 (SD = 0.62) for the belief dimension and 3.21 (SD = 0.53) for the optimism dimension. The conclusion highlights the importance of integrating spiritual aspects into care to improve the quality of life and resilience of patients with CKD.

Study P2: Quality of life in people with CKD undergoing hemodialysis

Study P2 assessed the quality of life of 110 individuals with CKD undergoing hemodialysis using the WHOQOL-bref and WHOQOL-SRPB instruments. Most participants were male, with an average age of 55.65 years, incomplete primary education, no formal occupation, Catholic, and highly/extremely religious. The average WHOQOL-bref scores (min-max = 0-100) were: Physical: 61.14 (SD = 18.54), Psychological: 74.20 (SD = 15.12), Social Relationships: 73.11 (SD = 19.11), and Environment: 67.67 (SD = 15.59). In the WHOQOL-SRPB domains (min-max = 1-5), the spiritual and religious domains showed high scores, especially the Faith domain, with 4.40 (SD = 0.50). The results indicate a positive perception of quality of life, particularly in spiritual and religious aspects, suggesting that spirituality should be considered in the assessment and management of quality of life in these individuals.

Study B1: Influence of religion in the treatment of CKD

Study B1 investigated the influence of religion in the treatment of CKD through interviews with doctors and patients with CKD. Among patients, 80% were Catholic, and 20% were Evangelical, while the doctors were 50% Catholic, 20% Agnostic, 20% Spiritist, and 10% Evangelical. The doctors emphasized faith in God as more relevant than specific religion, while 70% of patients considered religion crucial, offering guidance and support. The doctors pointed out that religion provides emotional comfort and strengthens CKD patients, while 90% of patients believed in the positive influence of faith on recovery. Religion was seen as essential in the lives and treatment of individuals with CKD.

Study B2: Spirituality, quality of life, and depression in Thai patients with CKD

Study B2 examined the association between spirituality, quality of life, and depression in 63 Thai patients with CKD, predominantly female Buddhists. Most participants had low levels of education, were unemployed, and had comorbidities such as diabetes and hypertension. Spirituality showed moderate positive correlations with physical health ($r = 0.34$) and mental health ($r = 0.37$), and a strong negative correlation with depression ($r = -0.55$).

Spirituality was assessed using the WHOQOL-SRPB (min-max = 0-20) and the Functional Assessment of Chronic Illness Therapy – Spiritual Well-Being Scale (FACIT-sp; min-max = 0-48). Quality of life and depression were measured using the Thai Health Status Assessment Instrument (9-THAI; min-max = 20-80) and the Beck Depression Inventory II (BDI-II; min-max = 0-63).

Participants had a median score of 18 (IQR = 2.9) on the WHOQOL-SRPB and a corresponding score of 44 (IQR = 10.0) on the FACIT-SP, indicating high levels of spirituality. The group also achieved quality of life scores within the normal range for the Thai population (M = 48.0, IQR = 2.05). Regarding depression, 63.5% of participants had minimal depression, while 19.0%, 14.3%, and 3.2% had mild, moderate, and severe levels, respectively. The most significant correlations were between the "Integration and Wholeness" dimension of spirituality and both mental health ($r = 0.48$) and depression ($r = -0.59$).

Study P3: Faith and spirituality in elderly individuals with chronic renal failure

Study P3, based on Viktor Frankl's logotherapy, investigated faith and spirituality in 20 participants with chronic renal failure. Most were Catholic, with varying levels of education and comorbidities such as hypertension and diabetes. Faith was essential for coping with the condition, providing emotional support and re-signifying the experience of illness. Spirituality influenced attitudes, hopes, and interactions, allowing participants to live with joy despite limitations. Faith and spirituality were identified as foundations in the search for meaning in life and strategies for resilience, emphasizing the importance of considering the spiritual dimension in caring for elderly individuals with chronic renal failure.

Study B3: Spirituality in individuals with CKD in rural North Carolina

Study B3 explored the effects of spirituality on individuals with CKD in rural North Carolina through focus groups and interviews. CKD significantly impacted participants' well-being, who used religious practices and faith as coping mechanisms, improving personal and social psychological well-being. Spirituality increased resilience, a sense of control over life, and self-esteem. The study emphasizes the importance of spirituality in the emotional management of CKD in rural settings, suggesting that integrating spiritual care into clinical practice can improve the quality of life for these individuals.

Study B4: Perceptions of spirituality in individuals undergoing hemodialysis

Study B4 investigated the perceptions of spirituality, religion, and religiosity in 28 participants with CKD undergoing hemodialysis. For many, these concepts represented deep beliefs in a Supreme Being, offering hope and purpose. Faith played a crucial role in coping with the emotional and physical challenges of CKD, promoting inner peace, acceptance, and improvements in health. Spirituality and religiosity were fundamental for emotional support, highlighting the need to integrate spiritual care into clinical practice to promote positive coping and improve participants' quality of life.

Regarding sample representativeness, only one study tested the adequacy of the sample to the population under study. Two articles, B1 and P3, included only twenty participants each, raising concerns about the representativeness and adequacy of the results. Furthermore, the geographical diversity of the selected studies is significant: the articles are distributed across three continents, which may influence the understanding of cultural practices and introduce bias into clinical practice. Specifically, there is one article from Asia (B2), five from South America (P1, P2, P3, B1, B4), and one from North America (B3). This geographical diversity is crucial for understanding cultural variations in spirituality and religion among CKD patients but also complicates the generalization of findings. The predominance of South American studies may also reflect specific regional practices, not necessarily applicable to other populations. Therefore, while the inclusion of multiple regions provides a comprehensive view, it also presents challenges for the universal applicability of the findings.

The analyzed studies employ a variety of methodological approaches. Studies P1 and P2 use correlational and cross-sectional descriptive approaches, respectively, while Study P3 employs a qualitative methodology based on Viktor Frankl's logotherapy. Studies B1 and B4 are qualitative, with B1 using interviews and the Collective Subject Discourse (DSC) method, and B4 focusing on a descriptive qualitative approach. Study B2 uses a cross-sectional descriptive study, and Study B3 combines semi-structured focus group discussions (FGDs) and in-depth interviews (IDIs). These different methodological strategies provide a multifaceted understanding of spirituality and religiosity in the quality of life of CKD patients.

The reviewed studies highlight a range of health issues and diseases faced by the studied population beyond CKD; some patients have other conditions such as diabetes, hypertension, cancer, and mental health issues like depression and anxiety. These specific health problems reflect the diversity and complexity of conditions faced by the studied populations, providing crucial insights for improving healthcare and preventive interventions. The seven analyzed studies offer various perspectives and results on the relationship between spirituality, religion, and the quality of life of CKD patients undergoing hemodialysis.

Importance of spirituality and religiosity

Spirituality and/or religiosity are crucial aspects in the lives of individuals with CKD, as defended by studies P1, P2, and P3. According to Study P1, there is a positive correlation between hope and spirituality, suggesting that faith may significantly contribute to increased hope for life. This point is corroborated by Study P2, which shows how spirituality

positively influences the perception of quality of life among participants. In turn, Study P3 emphasizes that faith is an essential resource for coping with the disease and finding meaning in life.

In addition to these findings, Study B1 points out that both doctors and patients with CKD recognize the importance of religion in the treatment of CKD, with patients viewing it not only as a source of hope but also as a crucial factor for confidence in recovery and treatment.

Moura et al. (2020) underline that spirituality is fundamental to the emotional and psychological well-being of people with CKD. For them, spirituality offers hope, comfort, and a sense of purpose, helping them to face the challenges posed by the disease and its treatment. Along similar lines, Brasileiro et al. (2017) highlight that spirituality not only provides relief from suffering during the illness process but also serves as a foundation that brings new meanings to the lives of individuals with CKD.

These studies collectively reinforce the importance of spirituality and/or religiosity as essential elements in the journey of individuals with CKD, not only as coping resources but also as factors that positively contribute to quality of life and the emotional strength of those with CKD.

Spirituality and/or religiosity as a coping mechanism

Spirituality is recognized by studies P1, B3, B4, and B2 as a vital coping mechanism for individuals with CKD. Study P1 highlights that faith plays a crucial role in helping CKD patients maintain an optimistic outlook. Study B3 emphasizes how religious practice and belief in God offer significant emotional support, especially for individuals with CKD living in rural areas. Study B4 complements this by indicating that faith and belief in God provide inner peace and facilitate acceptance of the changes imposed by the disease. Additionally, Study B2 associates spirituality with improvements in mental health and a reduced severity of depression among individuals with CKD.

Irman and Wijayanti (2022), using the Spiritual Emotional Freedom Techniques (SEFT) therapy, found a significant reduction in feelings of hopelessness among participants who received the therapy compared to those who did not. They advocate that SEFT therapy can be integrated into nursing practice to support the care of individuals with CKD undergoing hemodialysis.

Furthermore, Tinel et al. (2024), Souza et al. (2024), and Yodchai et al. (2016) emphasize that religious and spiritual coping mechanisms offer powerful strategies for adaptation, helping CKD patients overcome the suffering and difficulties associated with their health condition.

These studies highlight the importance of spirituality as a valuable resource for CKD patients undergoing hemodialysis, not only as a coping mechanism but also as an essential component in promoting emotional and psychological well-being.

Relationship between spirituality and/or religiosity and quality of life

Studies P2, B2, and B3 converge in highlighting a positive correlation between spirituality and/or religiosity and quality of life among individuals with CKD. Study P2 reveals that CKD patients with a strong spiritual connection generally experience a better quality of life. Similarly, Study B2 associates spirituality with better mental health and a lower prevalence of depression, while Study B3 emphasizes the benefits of spirituality for psychological and social well-being.

Eloia et al. (2021), Siqueira et al. (2019), and Vitorino et al. (2018) support these findings by indicating that high levels of spirituality and religiosity are associated with better quality of life, optimism, and happiness. These studies also highlight significant benefits for mental health, such as reduced suicide risk, depressive symptoms, and an improved perception of quality of life (Bravin et al., 2019).

Nair et al. (2020) observe that Black adults with high spirituality have a reduced risk of developing end-stage kidney disease, fewer depressive symptoms, greater social support, and less tobacco use. Bravin et al. (2019) emphasize that religiosity and spirituality offer benefits such as strengthening hope, social support, and coping with pain. Spirituality is also recognized as a source of comfort and hope, promoting positive effects on quality of life, mental health, and the cognitive perception of illness (Fradelos et al., 2015; Oliveira et al., 2020).

Moreover, Brasileiro et al. (2017) report that prayer was effective in reducing blood pressure, heart rate, and respiratory rate. Bravin et al. (2017) observed that spiritualized CKD patients experienced improved renal function one year after transplantation, while Gomes et al. (2018) discuss how spirituality influences the way CKD patients cope with the pain associated with treatment.

These studies consistently demonstrate the benefits of spirituality in promoting quality of life, mental health, and effective coping with chronic kidney disease.

Cultural and religious differences

Studies B2 and P3 explore different cultural and religious contexts concerning spirituality among individuals with CKD. Study B2, focused on Thai Buddhist patients, highlights a strong correlation between spirituality and mental well-being, stressing the need to consider specific cultural contexts when developing spiritual interventions. Yodchai et al. (2016) observe that in Thai culture, religion and spirituality are inseparable, reflecting an intrinsic connection between these aspects in Thai life.

On the other hand, Study P3 encompasses various religious practices, emphasizing spiritual diversity and the importance of faith as a unifying element regardless of religious denomination. This study expands the understanding of how different religious practices can coexist and provide spiritual support to CKD patients. Study B1 complements this perspective by revealing clear differences between doctors and CKD patients: while doctors emphasize the emotional comfort provided by religion, patients view it as a source of hope for recovery, highlighting a distinction in perception between the two groups.

Furthermore, Tinel et al. (2024) investigated the impact of Spiritists and Evangelicals on coping with CKD and concluded that Spiritists demonstrated the highest total coping, while Evangelicals used more negative coping strategies. These results underline the relevance of understanding cultural and religious nuances when incorporating spirituality into CKD treatment.

Practical challenges in religious and/or spiritual practice

Study B4 highlights that although religiosity and/or spirituality provide spiritual satisfaction, individuals with CKD face practical challenges due to physical limitations imposed by the treatment, which can adversely affect their social lives. This issue is not widely discussed in the other studies, indicating a promising area for future investigations.

Additionally, Tinel et al. (2024) found that age is positively correlated with positive religious and/or spiritual coping and negatively correlated with negative religious and/or spiritual coping. This implies that older individuals are more likely to use their spiritual and/or religious beliefs constructively to cope with their health condition, while they are less likely to use these beliefs negatively.

Furthermore, Fradelos et al. (2015) emphasize that many healthcare professionals face difficulties when dealing with spiritual issues, often due to a lack of knowledge and skills to address the topic. They highlight the urgent need to consider, assess, and address the spiritual needs of CKD patients, arguing that doing so can have positive impacts on various aspects of their lives.

Need for holistic approaches by healthcare professionals

Studies B2 and B3 emphasize the importance of holistic approaches in the care of CKD patients, integrating spirituality and/or religiosity into clinical management to improve their quality of life and resilience. According to Fradelos (2021), integrating the assessment of spiritual well-being and spiritual care into daily practice can significantly enhance the quality of care provided to individuals undergoing hemodialysis. This aspect is corroborated by Fradelos et al. (2015), who suggest that interventions promoting spiritual well-being can support more effective coping strategies during treatment.

Eloia et al. (2021), on the other hand, highlight that incorporating spiritual and/or religious beliefs into care can result in greater patient engagement in their treatment. This perspective is reinforced by Fradelos et al. (2015), who reflect on clinical practice by considering faith and spirituality as essential resilience strategies, capable of providing multidimensional care that encompasses biopsychosocial-spiritual aspects.

According to Souza et al. (2024), this approach enables nurses to expand their perception and understanding of individualized health needs. This view is echoed by Oliveira et al. (2020), who stress the relevance of understanding the impacts of religiosity and/or spirituality on the quality of life of CKD patients, emphasizing the importance of individualized and holistic care. Moreover, Brasileiro et al. (2017) propose that prayer be used as a tool to provide spiritual support, meeting the spiritual needs of individuals with CKD and assisting in coping with the emotional and lifestyle challenges posed by hemodialysis.

Holistic healthcare, with an emphasis on spirituality and/or religiosity, is encouraged by Bravin et al. (2017), who highlight that person-centered care goes beyond medical conditions, encompassing individual cultural beliefs and practices. The need to integrate individuals' spiritual needs into medical records is evidenced by the Joint Commission on Accreditation of Healthcare Organizations (Spinale et al., 2008; Bragazzi & Del Puente, 2013), which underscores patients' desire for their spiritual concerns to be adequately assessed and considered in clinical care.

Therefore, the adoption of mind-body interventions and cognitive-behavioral therapies based on spirituality and/or religiosity principles not only reduces psychological stress but also promotes healthy behaviors in various chronic conditions (Rosenkranz et al., 2016; Handley et al., 2017). These evidence-based approaches suggest a promising path for improving the quality of life and overall well-being of CKD patients, opening up space for further discussions and advancements in contemporary definitions of health and disease.

In our review, we did not find studies addressing coping strategies used by agnostic and/or atheist individuals, limiting the complete understanding of the impact of spirituality, religiosity, and/or their absence on coping with CKD. This gap prevents a comparative analysis between different coping perspectives, which could enrich the understanding of the various strategies adopted by CKD patients. Therefore, we consider it essential to develop future studies that investigate these groups, allowing for a more comprehensive and inclusive view. Such investigations could reveal other equally effective coping mechanisms, adaptable to different belief systems or their absence in the case of atheists and/or agnostics, and contribute to the development of more diverse and personalized clinical interventions that respect the needs and beliefs of all individuals with CKD.

4. Final Considerations

This study reviewed the potential impact of spirituality and religiosity on the quality of life and coping mechanisms of individuals with CKD undergoing dialysis. Based on the scope of this review, as discussed in previous paragraphs, the findings suggest that spirituality and/or religiosity can contribute to strengthening emotional resilience in individuals with CKD, improving their quality of life, as well as enhancing their perception of well-being and hope. The geographical diversity of the studies, covering regions such as South America, North America, and Asia, highlights the importance of considering cultural

variations in interpreting spiritual and religious practices that may influence CKD patients' responses to treatment. Integrating spirituality and/or religiosity into clinical practice appears to be a promising strategy but should be carefully considered and adapted to the individual needs, beliefs, and/or absence of beliefs of CKD patients, respecting cultural and religious diversity.

Additionally, a correlation between spirituality/religiosity and quality of life was observed, suggesting that a strong spiritual connection may improve mental health and reduce depressive symptoms in CKD patients. However, such associations should not be generalized to the entire CKD population, given the limitations of the reviewed studies in terms of cultural and sample diversity. Understanding cultural differences and being sensitive to adapting spiritual interventions are crucial for providing more effective and appropriate care that respects various religious and spiritual practices and/or the absence of them.

The limitations of this study include the lack of cultural diversity in the reviewed studies, which were primarily concentrated in countries such as Brazil, Thailand, and the United States, potentially limiting the generalization of results to other global cultures. Moreover, most of the reviewed studies focused on specific populations, such as elderly individuals or rural residents, limiting the applicability of results to other age groups and urban settings. Finally, we reaffirm the absence of research that addresses coping strategies used by agnostic and/or atheist individuals, which also limits the full understanding of the role of spirituality and religiosity in coping with CKD. Therefore, future research should expand its scope to include greater cultural and religious diversity, as well as explore coping approaches in different socioeconomic and demographic contexts. Such future investigations are essential for developing more inclusive and effective interventions that can meet the diverse needs of all CKD patients, seeking to offer and promote person-centered care.

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