

## SYSTEMATIC REVIEW

**Do spiritual religious coping strategies affect quality of life in patients with chronic kidney disease? A systematic review**

Wiwit Dwi Nurbadriyah, Nursalam, Ika Yuni Widyawati

**Abstract**

**Objective:** To examine the potential positive and negative effects of spirituality and religion on life quality of patients with chronic kidney disease.

**Method:** The systematic review comprised studies published from 2010 to 2020 on how spiritual and religious coping mechanisms impact the life quality of chronic kidney disease patients. The search was conducted using Google Scholar, PubMed, Scopus, Ebsco, Clinical Key, Wiley and ProQuest databases. The review was conducted in line with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines.

**Results:** Of the 519 studies initially identified, 10(1.9%) were reviewed in detail. Of them 7(70%) directly mentioned the elements of spiritual/religious coping mechanisms, 2(20%) mentioned the influence of spiritual/religious strategies on life quality through existential factors relating to physical or spiritual wellbeing, and 1(10%) stated that spiritual/religious coping strategies can have positive or negative effects on the life quality of chronic kidney disease patients.

**Conclusion:** Spiritual or religious coping mechanisms was found to have the potential to improve life quality of chronic kidney disease patients.

**Keywords:** Chronic kidney disease, Adaptation, Psychological, Renal insufficiency. (JPMA 73: S-148 [Suppl. 2]; 2023)

**DOI:** <https://doi.org/10.47391/JPMA.Ind-S2-34>

**Introduction**

An unhealthy lifestyle can lead to unwanted health problems, including chronic kidney disease (CKD). The body's capacity to maintain metabolic, fluid, and electrolyte balance diminishes due to CKD, resulting in urea accumulation, or uraemia.<sup>1</sup> CKD is the failure of the kidney function that progresses slowly and cannot be recovered, leaving the body unable to keep fluid, electrolyte and metabolic balance which causes uraemia.<sup>2</sup> Uraemia can poison all organs, including the brain, leading to complex problems and requiring comprehensive nursing. CKD patients require various medical treatments, including haemodialysis (HD), peritoneal dialysis (PD) or haemofiltration, fluid restriction and drugs to prevent serious complications requiring kidney transplantation.

One of the medical procedures for CKD patients is HD therapy<sup>3</sup> which may prevent fatality. However, HD does not cure or reverse CKD. CKD patients on HD therapy have to deal with a variety of issues brought on by the failing kidneys. This becomes a physical stressor that has an impact on the patient's bio, psycho, socio and spiritual components of life.<sup>4-6</sup> Patients on HD treatment may have physical weakness, including oedema, muscle weakness, discomfort, nausea and vomiting. Patients who undergo long-term HD therapy often feel depressed due to chronic

illness and fear of death. Besides, there are other problems related to their condition, including financial problems, difficulty in maintaining a job, lost sex drive and impotence. In dealing with these conditions, individuals living with CKD adopt various coping processes.<sup>7</sup> Coping is a process by which people try to manage the perceived discrepancy between their demands and resources.<sup>8</sup> Coping efforts aim at correcting or controlling a problem, but they also help people change their perception of incongruity, tolerance or acceptance of threats or harm, or fleeing or avoiding situations. Coping with stress due to chronic illness is very influential in changing a person's quality of life (QOL),<sup>9</sup> which is a person's assessment of the life quality, taking into account physical, social and emotional aspects.<sup>10</sup>

Prior research has looked at how improving QOL can lower morbidity and mortality rates in CKD patients, but literature on the relationship between religious/spiritual coping strategies and QOL is limited.<sup>11-13</sup> The current systematic review was planned to examine the potential positive and negative effects of spirituality and religion on QOL of CKD patients.

**Material and methods**

The systematic review comprised literature search on Google Scholar, PubMed, Scopus, Ebsco, Clinical Key, Wiley and ProQuest databases using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.<sup>14</sup>

<sup>1,2</sup>Department of Nursing, Airlangga University, Surabaya, Indonesia;

<sup>3</sup>STIKes Kepanjen, Malang, Indonesia

**Correspondence:** Nursalam. email: [prof.nursalam@gmail.com](mailto:prof.nursalam@gmail.com)

The studies included were those published in English-language, peer-reviewed journals between 2010 and 2020 with primary focus on religious/spiritual coping strategies in CKD patients, and which allowed free access to both the abstract and the text. Studies focussing on the caregivers or families of CKD patients were excluded.

Three reviewers independently conducted the search, using key words, like HD, life quality, religious coping strategies, CKD, coping strategies, spiritual coping, etc.

The studies identified were screened and shortlisted for detailed review. The review did not look at the difference in CKD stage and the duration of HD or any other treatment.

## Results

Of the 519 studies initially identified, 10(1.9%) were reviewed in detail (Figure). Of them 7(70%) directly mentioned the elements of spiritual/religious coping mechanisms, 2(20%) mentioned the influence of spiritual/religious strategies on QOL through existential factors relating to physical or spiritual wellbeing, and 1(10%) stated that spiritual/religious coping strategies can have positive or negative effects on QOL of CKD patients.<sup>15-24</sup> Spiritual wellbeing had a significant relationship with low suicide rates.<sup>18</sup> The existential wellbeing affected QOL, and there was no connection

between spirituality and mental health.<sup>16,17</sup>

Religion specifically was generally not mentioned except in 2(20%) studies which stated that spiritual/religious coping strategies were Islamic approaches<sup>15,22</sup> and 1(10%) had sample limited to Protestants and Catholics. Overall, 3(30%) studies had been conducted in Brazil, 3(30%) in North America, 2(20%) in Iran and 1(10%) each in the Philippines and Indonesia. However, 1(33.3%) of the studies conducted in North America used a sample of patients with Asian ethnicity.

In terms of methodology, 5(50%) studies were cross-sectional, 2(20%) were cohorts, 2(20%) used an ethnographic design, and 1(10%) was a semi-experimental pre-post study.

The cross-sectional design resulted in a limitation as it does not deal with evidence of causality, while the findings of studies with ethnographic design are not generalisable to the larger community. A cohort study was unable to explain causality, while another cohort study had limitation related to the selection of the instrument.

The sample size varied greatly as did the duration and stage of CKD as well as that of the treatment (Table).

**Table:** Matrices of the studies reviewed.

No	Author, Year, Origin	Aim	Design	Sample size	Religious Coping Measure Items	Finding	Limitation
1	Hattakit et al., 2019, Thailand <sup>15</sup>	To explore what might prevent the study's findings from being applied to additional HD sufferers. The cross-sectional design precludes drawing any inferences about the causal connections between the study variables.	Qualitative Ethnography	12 patients	-	Islamic and cultural are influences self-caring in patient haemodialysis	The sampling method unidentified. The qualitative method cannot be generalized.
2	Darvishi et al., 2019, Iran <sup>16</sup>	To assess the impact of spiritual therapy on haemodialysis patients' spiritual health, self-esteem, and self-efficacy.	pre-post test, 60-120 minutes each section)	24 Patients of Sahid Mustafa Government Hospital	Paloutzian and Ellison's scale of spiritual health	Positive spiritual therapy can improve the quality of life, sleep, perceptions about the disease and therapy, adherence, and treatment satisfaction.	Small sample size as a result of the study population's limited size.
3	Davison and Jhangri, 2013, Canada <sup>17</sup>	In order to ascertain whether adjustment to illness mediates the association between EWB and HRQL, researchers looked at the relationship between psychological adjustment to illness, EWB, and HRQL in patients with advanced chronic renal disease.	Cohort study	253 people with prevalent Stage 4 or 5 chronic renal disease who are on dialysis	Self-Report Psychological Adjustment to Illness Scale (PAISSR)	Patients with CKD who experience existential well-being (EWB), which is a spiritual aspect, report that it significantly affects their mental health. There is no correlation between psychosocial adjustment to sickness and mental health. However, independent of their psychosocial adjustment, patients' HRQL is uniquely influenced by their spirituality	These results imply that therapeutic resources oriented at evaluating and developing predialysis and dialysis patients' adjustment to their illness and spirituality may be beneficial, even though this is a cohort study and we are unable to demonstrate causality.

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No	Author, Year, Origin	Aim	Design	Sample size	Religious Coping Measure Items	Finding	Limitation
4	Loureiro et al., 2018, Brazil <sup>18</sup>	Examine whether spirituality and religiosity (S/R) are connected to the possibility of suicide as well as whether such convictions are connected to the possibility of mental health issues in hemodialysis patients.	Cross-sectional	264 patients with CKD	DUREL	Suicide, depression, and anxiety risk are all lowered in relation to spiritual well-being. Religiousness is not related to mental health	First of all, because it is a cross-sectional study, we are unable to determine causality. Second, doing private interviews is frequently challenging because of the dialysis setting.
5	Saffari et al., 2013, Iran <sup>19</sup>	To examine the relationships between spiritual/religious, Iranian Muslims receiving dialysis have better quality of life when considering demographic and medical factors.	Cross-sectional	362 patients	Duke University Religion Index (Koenig et al., 1997)	Spiritual / religious regression proven to be related to life quality Demographic Clinical signs (BMI, serum albumin, age, sex, marital status, and number of children) and demographic data (age, sex, comorbidity) related to life quality	Convenience sampling, potentially limits the applicability of the study's conclusions to additional HD patients. Any conclusions concerning the causal relationships between the study variables are not possible given the cross-sectional design.
6	Vitorino et al., 2018, Brazil <sup>20</sup>	Explored how haemodialysis patients' HRQoL and depression symptoms were affected by SRC behaviors.	cross sectional	184 patients HD	Brief SRC Scale	Spiritual/ religious coping has both positive and negative effects on mental health and HRQoL in hemodialysis patients.	Cross-sectional design, which limits the results by limiting the cause-and-effect relationship
7	Cruz et al., 2017, Philippines <sup>21</sup>	Analyzed the psychometric qualities of the Filipino versions of the Spiritual Coping Strategies scale (SCS-F) and the Duke University Religion Index (DUREL-F) for haemodialysis (HD) patients in the Philippines.	Cross-sectional	168 patients HD	DUREL-F, the Spiritual Coping Strategies scale, and the Duke University Religion Index (SCS-F)	The degree of religiosity was found to be higher in older patients, whereas the amount of variables that might affect respondents' responses was higher in younger patients. Participation in Religious Practices, innate religious beliefs, usage of Religious Coping, and Age were indicated as HRQoL. The Coping Strategies Scale has been approved for use in both versions.	Larger sample sizes should be taken into consideration in future investigations, even though the sample size used for factor analysis was sufficient. EFA was the only method used to test the tools' construct validity.
8	Santos, Capote, et al., 2017, Brazil <sup>22</sup>	Analyze the relationships between QOL and depression in ESRD patients receiving haemodialysis and R/S coping strategies (HD)	Cross-sectional	Patients of ESRD older than 18 who have received HD for longer	(RCOPE)	Religious / Spiritual treatment methods positive correlation to life quality and negative correlation to depression.	Design, which made it unable to determine the relationship between depression, R/S coping, and QoL
9	Chatrung et al., 2015, California <sup>23</sup>	Discover the shared concept of well-being and religious coping, and comprehend the CKD coping strategies of Thai people in Southern California.	Qualitative ethnography	8 Thai patients living abroad	-	Good self-care and self-management led to wellness and improved life quality Religion offers a belief system that aids in accepting the circumstance and raising quality of life.	The approach and small sample size prevent generalization.
10	Davison and Jhangri, 2010 <sup>24</sup>	Explored the religious and existential aspects of spirituality among CKD patients, offered proof for the construct validity of the ESRD Spiritual Beliefs Scale, and looked into the connection between spiritual constructs and HRQoL.	Cohort study	253 people with CKD in stages 4/5/on long-term dialysis	ESRD spiritual belief scale, spiritual perspective scale, spiritual well-being scale	There is a correlation between religiosity and HRQoL	Clinically pertinent aspects of spirituality must be measured by the spirituality assessment tool(s) used to evaluate patients. EWB was more clinically meaningful than measures of religion for these individuals.

## Discussion

Almost all the studies reviewed suggested that religious/spiritual coping mechanism had an impact on QOL. However, literature has also shown that religious/spiritual coping is a double-edged strategy that is not always beneficial to CKD patients.<sup>20</sup>

The current review covered study subjects from several countries with different cultural backgrounds. This is important because spiritual and religious aspects depend on the religion practised and the social culture around a patient. The culture of religiosity in Indonesia is different from that in, say, Brazil or North America. These cultural

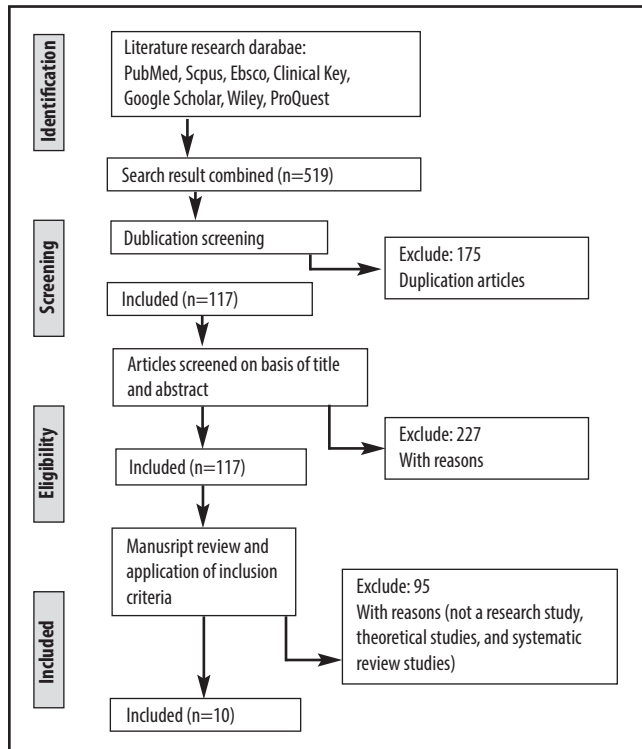


Figure: PRISMA Flowchart.

differences create social environments and social support in different forms.<sup>20,25-28</sup>

Another important point is that the concepts of spirituality and religiosity varied in the studies reviewed. This determined the use of instruments to measure the patient's religiosity and spirituality. The difference in the measurement of spiritual and religious aspects provides a different picture of the meaning of religious and spiritual concepts.<sup>16,21,29-31</sup>

The limitation of the current systematic review is that it was not registered with the International Prospective Register of Systematic Reviews (PROSPERO).<sup>32</sup>

## Conclusion

QOL of CKD patients is affected by spiritual and religious coping mechanisms, indicating that such mechanisms may enhance QOL of such patients. However, differences in beliefs related to spiritual and religious aspects provide a different picture of the meaning of religious and spiritual concepts.

**Acknowledgment:** We are grateful to all those who gave permission to conduct the review.

**Disclaimer:** The text was presented at the International Nursing Conference, 2022, held by Universitas Airlangga, Indonesia.

**Conflict of Interest:** None.

**Source of Funding:** None.

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