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DYNAMICS OF PSYCHOSOCIAL ADAPTATION AND LIFE MEANING AMONG STAGE 5 CHRONIC KIDNEY DISEASE PATIENTS UNDERGOING HAEMODIALYSIS: A SCOPING REVIEW BASED ON THE ROY ADAPTATION MODEL AND SELF-TRANSCENDENCE THEORY

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ABSTRACT
Stage 5 chronic kidney disease (CKD) is a progressive condition requiring long-term renal replacement therapy; haemodialysis imposes a complex physical, psychological, social, and existential burden on patients. Although the impact of haemodialysis on patients' lives has been extensively studied, the integration of psychosocial adaptation and self-transformation toward finding meaning in life within a comprehensive theoretical framework remains largely unexplored. To map and synthesize scientific evidence regarding the dynamics of psychosocial adaptation and life meaning among stage 5 chronic kidney disease (CKD) patients undergoing haemodialysis, and to develop an integrative conceptual framework based on the Roy Adaptation Model (RAM) and Self-Transcendence Theory (STT). This study employed a scoping review design in accordance with the Joanna Briggs Institute (JBI) guidelines and was reported in accordance with PRISMA-ScR. A literature search was conducted via Scopus, PubMed, and Google Scholar using the keywords "chronic kidney disease", "end-stage renal disease", "haemodialysis", "adaptation", "coping", "psychosocial", "spirituality", "self-transcendence", and "qualitative" for the period January 2022–May 2026, which initially identified 330 articles, of which nine qualitative articles ultimately met the inclusion criteria for analysis using thematic synthesis. The results of the thematic synthesis identified four main themes, namely: (1) psychosocial burden as a stimulus for adaptation, (2) the dynamics of psychosocial adaptation and the reconstruction of life meaning, (3) spirituality, hope, and coping strategies in the search for life meaning, and (4) social support as a factor that strengthens adaptation and the search for life meaning. Haemodialysis patients exhibit complex and multidimensional psychosocial adaptation dynamics, with the RAM explaining adaptive response processes, while the STT describes self-transformation toward life meaning and resilience. These findings underscore the importance of a holistic nursing approach and support a paradigm shift from disease-centered care toward meaning-centered care.

Keywords: chronic kidney disease; haemodialysis; meaning of life; psychosocial adaptation; roy adaptation model

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INTRODUCTION

Chronic Kidney Disease (CKD) is a global health issue with a prevalence that continues to rise significantly and has become one of the leading causes of morbidity, mortality, and reduced quality of life worldwide. Epidemiologically, more than 850 million people are estimated to be living with kidney disease, and CKD is projected to become one of the leading causes of death worldwide in the coming decades (Kidney Disease: Improving Global Outcomes (KDIGO), 2024; World Health Organization, 2024). In Indonesia, CKD is classified as a catastrophic illness with the highest financial burden within the National Health Insurance system, while the number of patients undergoing haemodialysis continues to rise each year. These conditions underscore that the management of end-stage CKD is not merely a clinical challenge but also a psychosocial and nursing challenge that requires comprehensive and structured care. In stage 5 (*end-stage*) chronic kidney disease (CKD), patients require definitive renal replacement therapy. Haemodialysis is the

most widely used modality, given the limited availability of donors and low accessibility to kidney transplantation. Although haemodialysis is effective in sustaining life, this therapy requires a long-term commitment and entails complex physical, psychological, social, and economic consequences (George et al., 2023; Sah et al., 2024).

Beyond the physiological effects, haemodialysis patients experience profound psychological changes. The early stages of therapy are typically marked by emotional shock, anxiety, and fear of death. Over time, some patients are able to develop coping mechanisms and adaptation strategies that support the maintenance of psychological well-being (Mehta et al., 2024; Li et al., 2025; L. Zhang et al., 2026). A number of qualitative studies have partially explored specific aspects of these experiences: some focus on spirituality and religiosity as coping strategies (Demir Çam & Uzun, 2025; Stein et al., 2025), while others examine the dynamics of social support and treatment adherence (Sousa et al., 2023; Sah et al., 2024), while still others examine identity reconstruction and the search for meaning in life (Li et al., 2025). However, these studies are generally fragmented and do not integrate their findings into a comprehensive theoretical framework; consequently, our understanding of how various dimensions of psychosocial adaptation interact and collectively shape the life meaning of haemodialysis patients remains inadequate. From a nursing perspective, two *middle-range* nursing *theories* are considered most relevant for addressing this gap. The Roy Adaptation Model (RAM) explains how individuals respond to environmental stimuli through four modes of adaptation physiological, self-concept, role function, and interdependence and distinguishes between adaptive and maladaptive responses (Roy, as cited in Alligood & Hardin, 2025). RAM provides a framework for understanding why and how haemodialysis patients adapt to changes in their physical condition and social roles. Meanwhile, Self-Transcendence Theory (STT) focuses on dimensions not explicitly covered in RAM namely, an individual's ability to transcend personal limits through spirituality, life meaning, and psychological growth amid vulnerable circumstances (Reed & Haugan, 2021). The integration of these two theories allows for a more comprehensive understanding: RAM explains the adaptation process, while STT explains the direction and purpose of that adaptation namely, toward a new sense of life's meaning and resilience.

This combination of dual-theory approaches has not been explicitly used in previous scoping reviews of haemodialysis patients. Given this gap, this scoping review was conducted to map and synthesize the latest scientific evidence regarding the dynamics of psychosocial adaptation and life meaning among stage 5 chronic kidney disease (CKD) patients undergoing haemodialysis, by integrating findings through the dual-theory framework of the Roy Adaptation Model (RAM) and STT. Specifically, this review addresses one main question: What are the dynamics of psychosocial adaptation and life meaning among stage 5 chronic kidney disease (CKD) patients undergoing haemodialysis from the perspectives of the Roy Adaptation Model (RAM) and Self-Transcendence Theory (STT)? This main question is broken down into three sub-questions: (1) what are the forms of psychosocial-spiritual burden and adaptive responses among haemodialysis patients?; (2) how can patients' experiences be mapped to the adaptation modes of RAM and the manifestations of self-transcendence in STT?; and (3) what are the implications of these findings for the development of holistic nursing practice for haemodialysis patients? The main contribution of this review is to produce an integrative conceptual framework that links the adaptation process (RAM) with self-transcendence toward life meaning (STT), as a foundation for the development of evidence-based nursing interventions for haemodialysis patients.

The scoping review approach was chosen because the purpose of this study is neither to assess the effectiveness of an intervention, as in a systematic review or meta-analysis, nor to provide an in-depth interpretation of a homogeneous set of qualitative studies, as in a meta-synthesis. Instead, this study aims to map the concepts, themes, and scientific evidence which remain scattered regarding the dynamics of psychosocial adaptation and the meaning of life among haemodialysis patients

across various contexts and qualitative approaches. Therefore, the scoping review approach is considered most appropriate for identifying the scope of available evidence, exploring knowledge gaps, and constructing an integrative conceptual framework based on the Roy Adaptation Model and Self-Transcendence Theory (Peters et al., 2020; Tricco et al., 2018). Therefore, this scoping review aims to map and synthesize scientific evidence regarding the dynamics of psychosocial adaptation and life meaning among stage 5 chronic kidney disease (CKD) patients undergoing haemodialysis, and to develop an integrative conceptual framework based on the Roy Adaptation Model (RAM) and Self-Transcendence Theory (STT).

METHOD

Research Design

This study employed a scoping review design based on the Joanna Briggs Institute (JBI) methodological framework, which was developed from the seminal framework by Arksey and O'Malley, and was reported in accordance with the PRISMA Extension for Scoping Reviews (PRISMA-ScR) guidelines (Arksey & O'Malley, 2005; Peters et al., 2020; Tricco et al., 2018). This approach was chosen because it allows for the systematic and comprehensive identification and mapping of key concepts related to psychosocial adaptation, spirituality, hope, resilience, and the meaning of life among hemodialysis patients.

The PCC (Population, Concept, Context) Framework

Article selection was conducted using the PCC (*Population, Concept, Context*) framework in accordance with the Joanna Briggs Institute (JBI) guidelines for scoping reviews. The application of the PCC framework aims to ensure alignment between the review's objectives, the characteristics of the population, the concepts being explored, and the context of the research under review, as presented in Table 1.

Table 1.
The PCC Framework

Component	Criteria
Population	Adult patients with stage 5 CKD/ESRD undergoing haemodialysis
Concept	Dynamics of psychosocial adaptation, spirituality, coping strategies, resilience, hope, life meaning, *self-concept*, and *self-transcendence*
Context	Haemodialysis units or maintenance haemodialysis in various healthcare settings without geographical restrictions

Inclusion and Exclusion Criteria

Inclusion Criteria: Qualitative primary research articles; participants are stage 5 CKD/ESRD patients undergoing haemodialysis; articles address the themes of adaptation, coping, spirituality, meaning of life, hope, or resilience; written in English; published between January 2022 and May 2026; available in *full text*. Exclusion Criteria: *Literature reviews*, systematic reviews, meta-analyses, editorials, and *conference proceedings*; quantitative or *mixed-methods* studies dominated by quantitative data; studies focusing on caregivers or healthcare professionals; studies discussing peritoneal dialysis or transplantation without a focus on haemodialysis; articles not available in *full text*.

Literature Search Strategy

Table 2.
Literature Search Strategy

Database	Search Strategy
Scopus	TITLE-ABS-KEY (("End-Stage Renal Disease" OR "Chronic Kidney Disease" OR ESRD) AND (Hemodialysis OR Haemodialysis) AND (Adaptation OR Coping OR Psychosocial OR Spirituality OR "Self-Transcendence") AND (Qualitative OR Phenomenology OR "Lived Experience"))
PubMed	("End-Stage Renal Disease"[tiab] OR "Chronic Kidney Disease"[tiab] OR ESRD[tiab]) AND (Hemodialysis[tiab] OR Haemodialysis[tiab]) AND (Adaptation[tiab] OR Coping[tiab] OR Psychosocial[tiab] OR Spirituality[tiab] OR "Self-Transcendence"[tiab]) AND (Qualitative[tiab] OR Phenomenology[tiab])
Google Scholar	("End-Stage Renal Disease" OR "Chronic Kidney Disease") AND Hemodialysis AND (Adaptation OR Spirituality OR "Self-Transcendence") AND (Qualitative OR Phenomenology)

A systematic literature search was conducted in May 2026 using three electronic databases (Scopus, PubMed, and Google Scholar). The search covered studies published between January 2022 and May 2026.

Study Selection
The study selection process followed the standard PRISMA-ScR steps, including identification, *screening*, *eligibility*, and *inclusion*. The initial search yielded 330 articles (Scopus: 200; PubMed: 85; Google Scholar: 45). After deduplication, title and abstract screening, and *full-text* evaluation, nine articles were found to meet the inclusion criteria and were included in the final synthesis. The entire study selection process is presented in the flowchart in Figure 1.

Data Extraction
Data were systematically extracted, including: authors and year, country, study design, participant characteristics, sample size, and key findings related to adaptation, coping, spirituality, meaning of life, hope, and resilience.

Assessment of Methodological Quality
Although the methodological quality assessment is optional in the JBI guidelines for scoping reviews, this step is still carried out to enhance the rigor, transparency, and robustness of the resulting evidence synthesis (Peters et al., 2020).The quality assessment aims to describe the methodological strengths of the included studies and support the interpretation of the synthesis results; however, it is not used as a basis for excluding articles.

Data Analysis
Data analysis was conducted using a *thematic synthesis* approach through three sequential stages: *open coding* (identification of initial codes from the study findings), *axial coding* (grouping similar codes into categories), and *selective coding* (integration of categories into *core themes*) (Thomas & Harden, 2008).

Theoretical Interpretation
The themes generated from the synthesis process were interpreted theoretically using the dual framework of RAM and STT. RAM explains the patient's adaptation process through four modes of adaptation physiological, self-concept, role functioning, and interdependence while STT explains the development of hope, resilience, spirituality, life meaning, and self-transformation as outcomes of this process (Roy, as cited in Alligood & Hardin, 2025; Reed & Haugan, 2021).

Ethical Statement
This study is a scoping review that synthesizes secondary data from articles that have been published openly and are publicly accessible. In accordance with applicable regulations, specific ethical approval is not required for research based on secondary data synthesis (*ethical clearance not required for secondary data synthesis/literature review*). The authors declare that there are no conflicts of interest in the conduct or reporting of this study.

RESULT

Study Selection
A literature search yielded 330 articles from three electronic databases. After undergoing a stepwise selection process in accordance with the PRISMA-ScR guidelines, nine articles were found to meet the inclusion criteria and were included in the final synthesis. The study selection flowchart is presented in Figure 1.

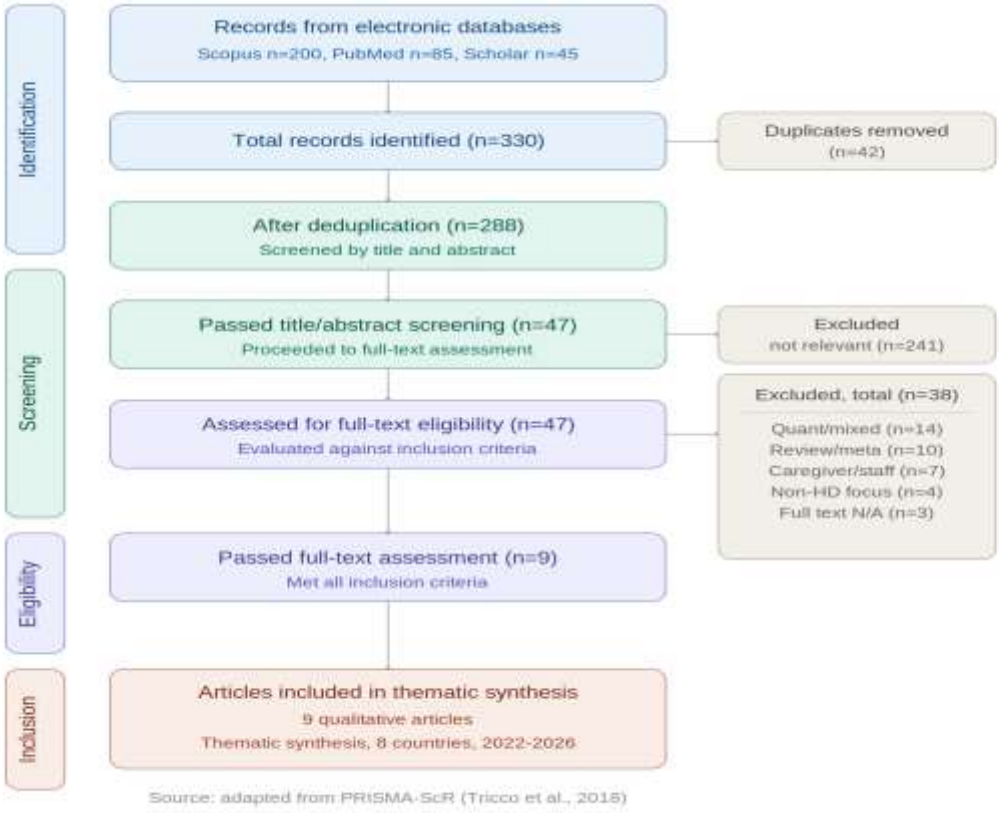

Figure 1. Study Selection Flowchart Based on PRISMA-ScR

Characteristics of the Included Studies

The nine included studies originated from eight countries India, the United States, Türkiye, Pakistan, Nepal, China, Brazil, and Portugal and employed various qualitative research designs. The number of participants in each study ranged from 10 to 24, for a total of 141 patients. The complete characteristics of the included studies are presented in Table 3.

Table 3.
Characteristics of the Included Studies

No.	Author (Year)	Country	Design	Sample	Journal	Key Findings
1	George et al. (2023)	India	Qualitative Descriptive (Thematic Analysis – Braun & Clarke)	12 female HD patients	Journal of Education and Health Promotion	Six themes: physical suffering, mental distress, restricted life, sexual inactivity, social breakdown, financial difficulties.
2	Mehta et al. (2024)	USA	Qualitative (Thematic Analysis – Braun & Clarke)	20 incident HD patients	Journal of Renal Care	Three themes: feeling overwhelmed when starting dialysis, making sense of the experience, and moving forward.
3	Demir Çam & Uzun (2025)	Turkey	Descriptive Phenomenology (Colaizzi)	23 HD patients	Journal of Religion and Health	Four categories & 13 themes: the biopsychosocial dimensions of HD and spiritual coping strategies.
4	Ishaq et al. (2025)	Pakistan	Qualitative Exploratory Study (Thematic Analysis)	10 patients with ESRD	Journal of Religion and Health	The influence of religion on adherence: (positive) religious coping and (negative) self-reported beliefs.
5	Sah et al. (2024)	Nepal	Qualitative Phenomenology / Pilot Study (Colaizzi)	13 CKD HD patients	Journal of the Nepal Health Research Council	Four themes: HD journey, financial barriers, psychosocial support, and seeking healthcare services.

No.	Author (Year)	Country	Design	Sample	Journal	Key Findings
6	L. Zhang et al. (2026)	China	Interpretive Phenomenology (RAM; Colaizzi; NVivo 12)	15 MHD patients	Patient Preference and Adherence	Four themes: finding balance, repositioning oneself, pursuing a new life, relying on family ties.
7	Li et al. (2025)	China	Qualitative (Content Analysis)	11 patients with early-stage uremia on haemodialysis	International Journal of Qualitative Studies on Health and Well-being	Four categories: shock, emotional support, adaptation of life meaning, and cognitive growth and transcendence.
8	Stein et al. (2025)	Brazil	Qualitative Descriptive (Collective Subject Discourse)	13 HD patients	Revista Baiana de Enfermagem	Three categories: social support, spiritual support, spirituality as a coping mechanism, and acceptance.
9	Sousa et al. (2023)	Portugal	Qualitative Exploratory (Thematic Analysis; Health Belief Model)	24 patients with ESRD on HD	International Journal of Behavioral Medicine	Five HD facilitators: social support, benefits, self-efficacy, duration of dialysis, risk perception.

Notes: HD = Hemodialysis; CKD = Chronic Kidney Disease; ESRD = End-Stage Renal Disease; MHD = Maintenance Hemodialysis. Source: Article analysis results, 2026.

Methodological Quality Assessment

The results of the assessment using the JBI Critical Appraisal Checklist for Qualitative Research showed that eight of the nine studies were classified as high quality (score 8–10/10), while one study was classified as moderate quality (score 7/10). The criterion most frequently not explicitly reported was researcher reflexivity. Overall, all included studies demonstrated adequate alignment between research objectives, methodological design, data collection methods, analysis procedures, and interpretation of results.

Table 4.
Summary of Methodological Quality Assessment Based on the JBI Critical Appraisal Checklist

Code	Author	Year	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Score	Category
A1	George et al.	2023	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10/10	Tall
A2	Mehta et al.	2024	Y	Y	Y	Y	Y	U	Y	Y	Y	U	7/10	Moderate
A3	Demir Çam & Uzun	2025	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10/10	Height
A4	Ishaq et al.	2025	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10/10	Tall
A5	Sah et al.	2024	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	8/10	Tall
A6	L. Zhang et al.	2026	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10/10	Tall
A7	Li et al.	2025	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10/10	Tall
A8	Stein et al.	2025	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	8/10	Tall
A9	Sousa et al.	2023	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10/10	High

Legend: Y = Yes (met); N = No; U = Unclear. Q1–Q10 = the ten criteria of the JBI Qualitative Checklist. High = ≥8/10; Moderate = 6–7/10; Low = ≤5/10.

Thematic Synthesis

The thematic analysis process, which included the stages of *open coding*, *axial coding*, and *selective coding,* yielded 20 categories that were subsequently integrated into four *core themes* (Table 5).

Table 5.
Results of Selective Coding and Core Themes

Core Theme	Theoretical Framework	Axial Categories	Narrative Essence
CT I. Psychosocial Burden as a Stimulus for Adaptation	Roy's Adaptation Model (Focal Stimulus)	1.1 Chronic physical symptoms; 1.2 Activity limitations & loss of independence; 1.3 Dietary & fluid restrictions; 1.4 Burden of treatment & complications	Haemodialysis presents physical and psychosocial stimuli that compel patients to undergo multidimensional adaptation.
CT II. Dynamics of Psychosocial Adaptation and Reconstruction of Life Meaning	RAM (Self-Concept Mode) & STT	2.1 Initial shock & crisis of meaning; 2.2 Anxiety & depression; 2.3 Acceptance & redefinition of meaning; 2.4 Resilience & growth; 2.5 Repositioning of self-identity	Adaptation proceeds dynamically from the crisis phase toward identity reconstruction and psychological growth.
CT III. Spirituality, Hope, and Coping Strategies in Making Sense of Life	RAM & STT	3.1 Active self-management; 3.2 Religious and spiritual coping; 3.3 Maladaptive coping; 3.4 Hobbies and new social roles; 3.5 Self-efficacy and hope	Spirituality and hope serve as sources of strength that drive *self-transcendence*.
CT IV. Social Support as a Reinforcer of Adaptation and Meaning in Life	RAM (Interdependence Mode) & STT	4.1 Family support; 4.2 Peer support; 4.3 Support from healthcare providers; 4.4 Social burden & isolation; 4.5 Economic burden & access to services	Positive interpersonal relationships strengthen adaptation; isolation and economic burden hinder it.

Core Theme I: Psychosocial Burden as a Stimulus for Adaptation

All included studies described haemodialysis as an experience that imposes a multidimensional burden encompassing physical, psychological, social, and economic aspects. The most dominant physical manifestations include extreme fatigue, pain, muscle cramps, pruritus, sleep disturbances, and fluid intake restrictions, which pose major challenges in patients' daily lives (George et al., 2023; Demir Çam & Uzun, 2025). Dependence on dialysis machines results in a loss of flexibility for patients in carrying out their work and social activities. This situation leads to decreased productivity, lost job opportunities, and economic strain that is also felt by their families (George et al., 2023; Sah et al., 2024). In addition, the social burden of isolation and stigma associated with chronic illness also negatively impacts patients' self-confidence (George et al., 2023; Stein et al., 2025). From the RAM perspective, these overall burdens constitute *focal stimuli* that trigger adaptive responses in physiological functioning, self-concept, role functioning, and interdependence (Roy, as cited in Alligood & Hardin, 2025). Therefore, nursing interventions must be designed not only to achieve physiological stabilization but also to strengthen the patient's adaptive capacity in a holistic and comprehensive manner.

Core Theme II: The Dynamics of Psychosocial Adaptation and the Reconstruction of Life's Meaning

The psychological adaptation of haemodialysis patients is a dynamic and nonlinear process. The early stages of therapy are typically marked by emotional shock, fear, anxiety, and a sense of loss of control over one's life. A diagnosis of end-stage chronic kidney disease is often perceived as a turning point that fundamentally changes the direction and orientation of a patient's life (Mehta et al., 2024; Li et al., 2025). Over time, patients gradually develop an attitude of acceptance through a process of reflection and continuous learning. This acceptance is subsequently followed by a reconstruction of the meaning of life, characterized by a reassessment of priorities, an appreciation for the simple aspects of life, and a reinterpretation of haemodialysis as a *"second chance at* life" (Li et al., 2025; L. Zhang et al., 2026). This process ultimately leads to the development of resilience, psychological growth, and the emergence of altruistic behaviors, such as the desire to support fellow patients facing similar experiences. From the RAM perspective, this phenomenon is

closely related to *the self-concept mode*, while STT explains it as a process of self-transformation leading to the formation of a new sense of life's meaning (Roy, as cited in Alligood & Hardin, 2025; Reed & Haugan, 2021; L. Zhang et al., 2026).

Core Theme III: Spirituality, Hope, and Coping Strategies in the Search for Meaning in Life

Hemodialysis patients develop multidimensional coping strategies, including active self-management, spirituality, the development of new social roles, hope, and self-efficacy. Active self-management includes managing fluid restrictions, adhering to a diet, and taking medications regularly, which collectively provide a sense of control over the course of the patient's life (Sousa et al., 2023; L. Zhang et al., 2026). Spirituality and religiosity consistently emerge across cultural contexts as the most dominant coping strategies. The practices of prayer, worship, and faith in God have been shown to provide inner peace and help patients accept their illness as an integral part of a meaningful life journey (Demir Çam & Uzun, 2025; Ishaq et al., 2025; Stein et al., 2025). However, maladaptive forms of religious coping such as refusing medical treatment based on religious beliefs have the potential to reduce patients' adherence to haemodialysis programs (Ishaq et al., 2025). The hope of sustaining life, improving quality of life, or receiving a kidney transplant has been shown to provide strong motivation for patients to consistently adhere to their treatment. Patients with higher levels of hope and self-efficacy demonstrate better treatment adherence and a greater capacity for adaptation (Sousa et al., 2023; L. Zhang et al., 2026).

Core Theme IV: Social Support as a Catalyst for Adaptation and Life Meaning

Social support is the most influential determinant of successful adaptation and the development of a sense of meaning in the lives of haemodialysis patients. Family is the most dominant source of support; patients consistently describe their families as the primary motivation driving them to persevere with haemodialysis therapy (Sah et al., 2024; Li et al., 2025; L. Zhang et al., 2026). Peer relationships provide a sense of mutual understanding that is difficult to obtain from others, and such interactions have been shown to reduce feelings of loneliness while improving patients' psychological well-being (Li et al., 2025; Stein et al., 2025; Mehta et al., 2024; Sousa et al., 2023). Conversely, social isolation, stigma associated with chronic illness, and a heavy economic burden have been shown to hinder the adaptation process and reduce patients' psychological well-being. From the RAM perspective, these dynamics are closely related to *the "interdependence mode*," which emphasizes the importance of mutually supportive relationships as the foundation for optimal adaptation (Roy, as cited in Alligood & Hardin, 2025; George et al., 2023; Sah et al., 2024).

An Integrative Conceptual Framework for the Dynamics of Psychosocial Adaptation and Life Meaning in Haemodialysis Patients Based on the Roy Adaptation Model and Self-Transcendence Theory

Based on the results *of the thematic synthesis*, which identified four *core themes*, an integrative conceptual framework was developed to illustrate the relationship between the Roy Adaptation Model (RAM) and Self-Transcendence Theory (STT) in explaining the dynamics of psychosocial adaptation and life meaning among haemodialysis patients (Figure 2). The psychosocial burden caused by the disease and haemodialysis therapy acts as *a focal stimulus* that triggers the adaptation process through four modes physiological, self-concept, role functioning, and interdependence as outlined in the Roy Adaptation Model (Roy, as cited in Alligood & Hardin, 2025). This adaptation process develops gradually through self-acceptance, identity repositioning, and the development of resilience as an adaptive response to the various stimuli faced by patients. Furthermore, spirituality, hope, coping strategies, and social support from family, healthcare providers, and fellow patients serve as reinforcing factors that promote the process *of self-transcendence*. From the STT perspective, this process reflects an individual's ability to transcend personal limitations, discover new meaning in life, and achieve psychological growth at a higher level (Reed & Haugan, 2021). *The* ultimate *outcomes* of this entire process are the formation of a new sense of life's meaning,

sustained psychological growth, long-term resilience, and an improved quality of life for haemodialysis patients.

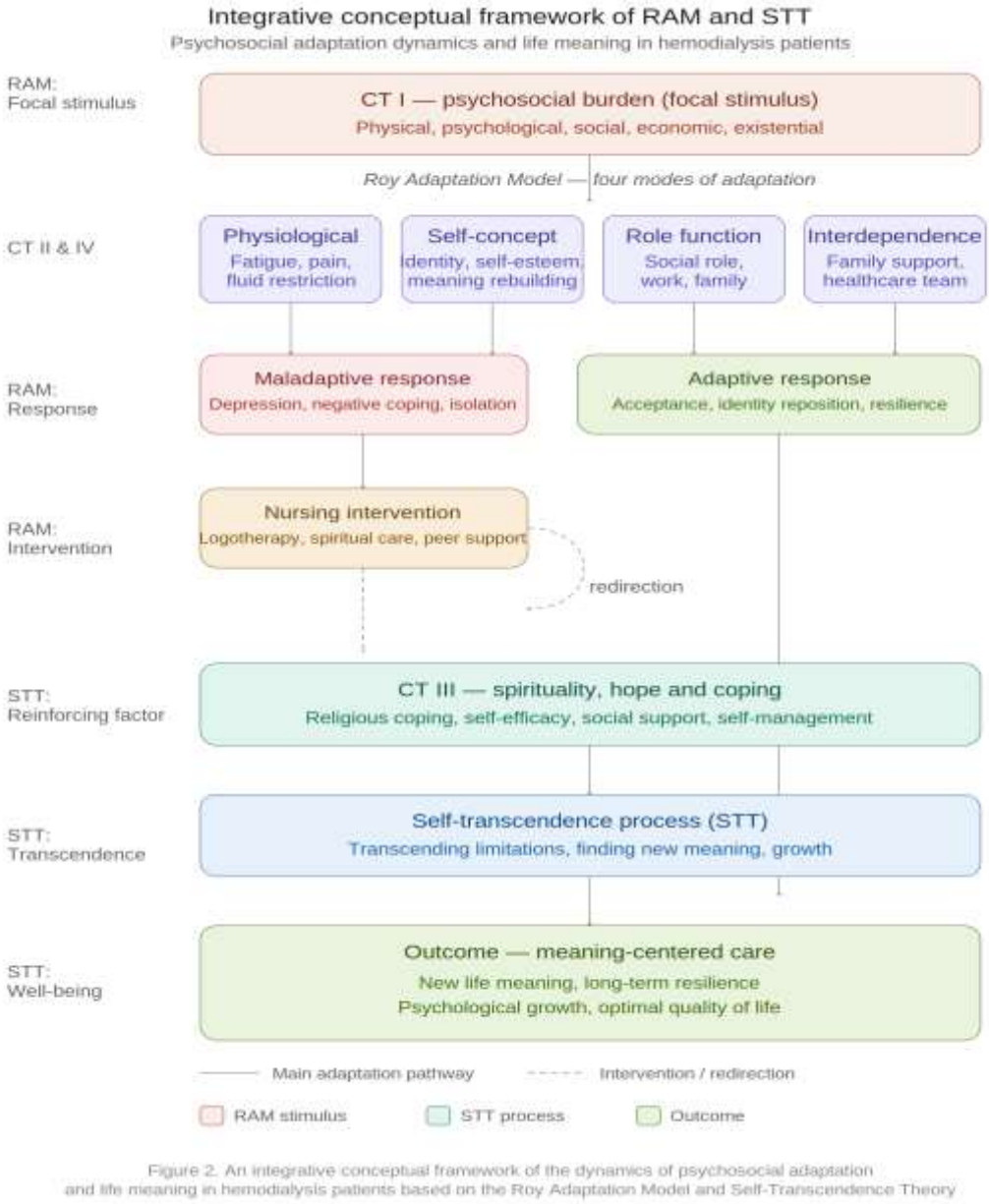

Figure 2. An Integrative Conceptual Framework of the Dynamics of Psychosocial Adaptation and Life Meaning in Haemodialysis Patients Based on the Roy Adaptation Model and Self-Transcendence Theory

DISCUSSION

Psychosocial Stress as a Stimulus for Adaptation

This scoping review confirms that patients with stage 5 chronic kidney disease face a multidimensional burden, encompassing physical, psychological, social, and economic aspects (George et al., 2023; Demir Çam & Uzun, 2025; Sah et al., 2024). These findings are consistent with previous literature documenting a decline in physical function, significant lifestyle changes, and increased psychological stress as consequences of long-term hemodialysis. Within the RAM framework, these conditions constitute *focal stimuli* that simultaneously require adaptive responses across all four modes of adaptation (Roy, as cited in Alligood & Hardin, 2025). The multidimensional burden experienced by patients does not merely affect their clinical health status but also serves as a primary trigger for psychosocial adaptation processes, which ultimately

determine how patients make sense of their lives and their illness. This underscores the importance of developing holistic nursing interventions that are not only oriented toward physical stabilization but also support psychosocial adaptation and facilitate the formation of patients' life meanings. This multidimensional burden thus serves as the starting point of an adaptation trajectory that subsequently evolves toward the search for, reconstruction of, and internalization of new life meanings, as described in the framework of Self-Transcendence Theory.

The Dynamics of Psychosocial Adaptation and the Reconstruction of Life's Meaning

The psychological adaptation of hemodialysis patients occurs through a gradual process that begins with a phase of shock and loss of control and progressively evolves toward self-acceptance and positive adjustment (Mehta et al., 2024; Li et al., 2025; L. Zhang et al., 2026). These findings align with Roy's Adaptation Model, which conceptualizes adaptation as a dynamic and continuous process in response to various internal and external stimuli. In this process, individuals have the potential to transition from a crisis phase and maladaptive responses toward adaptive responses characterized by self-acceptance, cognitive flexibility, resilience, and sustained psychological growth. 's reconstruction of life meaning, which occurs alongside the adaptation process, reflects the core conceptual element of *self-transcendence* in STT namely, an individual's capacity to find purpose, life meaning, and personal growth amidst the limitations they face (Reed & Haugan, 2021). These findings are further supported by quantitative evidence showing that the sense of life's meaning among haemodialysis patients is positively correlated with the duration of therapy and the quality of social support received (Liu & Mao, 2022).

Spirituality, Hope, and Coping Strategies

Spirituality emerged as the most consistent coping strategy across cultures in this study. A number of studies have shown that spirituality is correlated with lower levels of depression, better psychological well-being, and a higher quality of life among patients with chronic illnesses (Demir Çam & Uzun, 2025; Stein et al., 2025). These findings are reinforced by quantitative evidence revealing that higher spirituality scores are significantly associated with improved quality of life among haemodialysis patients (Fradelos et al., 2021).A distinctive contribution of this review lies in the identification of maladaptive religious coping, which has been shown to hinder patients' adherence to treatment programs (Ishaq et al., 2025). Beyond their function as coping mechanisms, spirituality and hope play a crucial role in helping patients reconstruct the meaning of life following the fundamental changes brought about by chronic illness. From the STT perspective, this process reflects an individual's capacity to transcend physical limitations and discover a new sense of purpose in life, which in turn enhances overall adaptive capacity and psychological well-being.

Although spirituality generally serves as a source of psychological strength, not all forms of religious coping result in adaptive responses. (Ishaq et al. (2025)identified the existence of maladaptive religious coping characterized by the belief that healing depends entirely on God's will, leading to the perception that medical intervention is no longer relevant or necessary. From the RAM perspective, this condition can be conceptualized as a maladaptive response that actively hinders an individual's capacity to adapt to the stressors of chronic illness. Meanwhile, from the STT perspective, a failure to develop a constructive sense of life's meaning has the potential to lead to psychological stagnation, erosion of hope, and a decline in motivation to consistently undergo therapy. Based on this, nurses need to conduct early detection of indicators of maladaptation, which include decreased adherence to the haemodialysis schedule, refusal of treatment, excessive fatalistic attitudes, withdrawal from the social environment, and expressions of lost hope. Early identification of these indicators enables nurses to provide appropriate and structured interventions through counselling, therapeutic education, facilitation of adaptive spiritual support, and collaboration with family members and religious leaders to sustainably strengthen patients' adaptation processes and their search for meaning in life.

Social Support as a Factor Strengthening Adaptation

Social support plays a central role in the success of a patient's adaptation process, and this finding is consistent with the *"interdependence mode"* concept in the Roy Adaptation Model (Roy, as cited in Alligood & Hardin, 2025). Active family involvement has been shown to strengthen adherence to the therapy program, improve quality of life, and help patients cope with various physical and psychological challenges during haemodialysis (Sousa et al., 2023; L. Zhang et al., 2026). Beyond its role in supporting the adaptation process, positive interpersonal relationships also facilitate the reconstruction of life meaning through feelings of acceptance, appreciation, and the awareness that patients continue to play a meaningful role within their families and social environments. Thus, social support functions not merely as a protective factor against psychological stress but also as a vital resource in shaping and strengthening the sense of life meaning among haemodialysis patients.

Hope, Resilience, and Self-Transcendence as Adaptive Outcomes

The results of the thematic synthesis indicate that hope, resilience, and self-transcendence consistently emerge as outcomes of the psychosocial adaptation process in haemodialysis patients, rather than merely supporting factors throughout the process. Li et al. (2025) found that patients who successfully navigated the initial shock phase experienced psychological growth and cognitive transcendence, as evidenced by their ability to interpret the experience of illness more positively and their openness to changes in life roles. L. Zhang et al. (2026) also reported that patients were ultimately able to "pursue a new life as a form of resilience" after undergoing a process of self-balancing and repositioning. Furthermore, Sousa et al. (2023) demonstrated that increased hope and self-efficacy over the course of therapy serve as indicators of successful long-term adaptation. These findings reinforce the idea that hope, resilience, and self-transcendence are the final outcomes of the adaptation process, rather than merely coping strategies within that process.

These findings make a significant conceptual contribution by demonstrating that psychosocial adaptation and life meaning are not two independent phenomena, but rather two interrelated processes that develop simultaneously throughout a patient's haemodialysis journey. The integration of Roy's Adaptation Model and Self-Transcendence Theory allows for a more comprehensive and layered understanding of the interrelationship between adaptive responses, self-transformation, and the formation of life meaning. Based on this synthesis, this study proposes an integrative conceptual framework that can serve as a theoretical foundation for the development of adaptation-based nursing interventions and *meaning-centered care* for haemodialysis patients.

Implications for Nursing Practice

The findings of this review indicate an urgent need for a holistic nursing approach capable of comprehensively identifying and responding to various adaptive stimuli, including physical symptoms, changes in social roles, emotional distress, and economic constraints. Nurses play a strategic role in facilitating the development of adaptive coping mechanisms through health education, psychosocial counselling, and strengthening patients' *self-management* capacity. Spiritual assessment needs to be integrated as a routine component of nursing care, and active family involvement must be prioritized as an integral part of haemodialysis patient care programs. Beyond education and strengthening *self-management*, nurses can develop more specific and structured interventions to support psychosocial adaptation and the search for meaning in the lives of hemodialysis patients. *Logotherapy-based* interventions have the potential to help patients explore the meaning of life, set life goals, and identify values that can be upheld amid the limitations imposed by chronic illness. Structured *spiritual care* which includes systematic assessment of spiritual needs, facilitation of religious practices, and therapeutic communication that is sensitive to patients' values and beliefs can strengthen hope and the capacity for self-acceptance. Additionally, the formation of *peer support groups* actively facilitated by the haemodialysis unit can serve as a forum for sharing experiences, exchanging emotional support, and learning adaptive coping strategies among patients. Overall, these interventions have the potential to enhance

resilience, strengthen the process *of self-transcendence*, and help patients develop a more positive and meaningful sense of life while undergoing haemodialysis therapy.

Strengths and Limitations of the Study

The strengths of this study encompass several key aspects. First, the application of a systematic and transparent scoping review methodology in accordance with the guidelines of the Joanna Briggs Institute (JBI) and PRISMA-ScR, which includes a phased article selection process and an assessment of the methodological quality of all included studies. Second, a thematic synthesis was conducted on nine high-quality qualitative studies from eight countries with diverse cultural contexts, health care systems, and population characteristics, resulting in a rich, in-depth, and representative picture of the dynamics of psychosocial adaptation and the meaning of life among haemodialysis patients. Third, the application of a *dual-theory* interpretation integrating the Roy Adaptation Model and Self-Transcendence Theory produced an integrative conceptual framework that had not been explicitly developed in the previous literature.

The limitations of this study include three points. First, the literature review was limited to English-language publications released between 2022 and 2026, which may have excluded relevant evidence published in other languages or outside that timeframe. Second, all included studies were qualitative in nature, making it impossible to measure causal relationships or assess the effectiveness of interventions quantitatively. Third, the number of included studies is relatively limited, although this is a consequence of applying strict inclusion criteria namely, including only primary qualitative studies involving stage 5 CKD/ESRD patients undergoing haemodialysis, published between 2022 and 2026, available in *full text*, and specifically focused on psychosocial adaptation and life meaning. These criteria were established to ensure relevance to the review's objectives while enhancing the depth and coherence of the resulting thematic synthesis. Despite these limitations, all included studies demonstrated good methodological quality based on the JBI assessment. This review also differs conceptually from a broader qualitative meta-synthesis (J. Zhang et al., 2025), as it specifically focuses on the theoretical integration of the Roy Adaptation Model and Self-Transcendence Theory as the foundation for developing a conceptual framework for psychosocial adaptation and life meaning among haemodialysis patients.

CONCLUSION

Stage 5 chronic kidney disease patients undergoing haemodialysis experience complex and multidimensional psychosocial adaptation dynamics, which progress from the crisis phase, through self-acceptance and identity reconstruction, to the formation of a new life meaning. These findings confirm that psychosocial adaptation and the search for meaning in life are not two separate phenomena, but rather two interrelated processes that develop dynamically and occur simultaneously throughout a patient's haemodialysis journey. The Roy Adaptation Model explains the process by which patients adapt in response to various physical, psychological, social, and environmental stimuli through four modes of adaptation, while Self-Transcendence Theory explains the process of self-transformation that enables individuals to find purpose, meaning in life, and psychological growth amid the limitations imposed by chronic illness. The integration of these two theories yields a more comprehensive and layered understanding of the patient's trajectory from the crisis phase toward self-acceptance, resilience, and the internalization of a new sense of life's meaning. Based on this, a holistic nursing approach that integrates the physical, psychological, social, spiritual, and existential dimensions is an essential requirement in efforts to support optimal adaptation and comprehensively improve the quality of life for haemodialysis patients.

The findings of this review indicate that the integration of Roy's Adaptation Model and Self-Transcendence Theory not only deepens our understanding of the adaptation process in haemodialysis patients but also offers a new perspective of strategic value in contemporary nursing practice. Conceptually, this integrative approach shifts the service paradigm from disease-centered

care which focuses solely on clinical disease management toward meaning-centered care, which places life meaning, hope, resilience, and psychological growth as integral components of the overall care process. Thus, the success of haemodialysis patient care is no longer measured solely by clinical stability but also by the patient's capacity to reconstruct the meaning of life and achieve optimal psychosocial well-being.

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