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COMPARISON OF THE QUALITY OF LIFE OF ADULT PATIENTS UNDERGOING HAEMODIALYSIS AND PERITONEAL DIALYSIS: NARRATIVE REVIEW

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ABSTRACT

Background: Quality of life is a key clinical outcome in adults with end stage kidney disease, as dialysis profoundly affects physical functioning, psychological wellbeing, daily activities, and social participation. Haemodialysis and peritoneal dialysis differ in treatment organization, patient autonomy, and everyday burden, which may translate into distinct quality of life profiles. Existing evidence remains heterogeneous and sometimes contradictory, partly due to methodological variability.

Aims: To summarize and critically analyze published studies comparing quality of life in adult patients treated with haemodialysis and peritoneal dialysis, with emphasis on clinical relevance and interpretability of reported outcomes.

Methods: A narrative review was conducted using PubMed, Embase, and Google Scholar. Peer reviewed studies published in English or Polish that assessed quality of life with validated instruments such as SF 36, KDQOL, or WHOQOL were included. Comparative observational studies and relevant systematic reviews were analyzed qualitatively.

Results: Most studies reported more favourable quality of life outcomes for peritoneal dialysis in selected domains, particularly autonomy, daily functioning, treatment flexibility, and social participation. However, results were domain specific and inconsistent across studies. Psychological outcomes varied, with some reports of higher depressive burden in peritoneal dialysis and lower anxiety in haemodialysis, potentially related to differences in clinical supervision. Quality of life was strongly influenced by clinical status, psychosocial factors, and healthcare organization in addition to dialysis modality.

Conclusions: Dialysis modality is associated with differences in quality of life, but no universal advantage of one treatment over the other can be established. Peritoneal dialysis often confers benefits related to independence and daily functioning, while haemodialysis may provide psychological security for some patients. Quality of life should be integrated into individualized modality selection alongside medical, functional, and psychosocial considerations.

Keywords: haemodialysis, peritoneal dialysis, quality of life, chronic kidney disease, renal replacement therapy

INTRODUCTION

Chronic kidney disease is among the most prevalent noncommunicable diseases and represents a substantial medical and social burden for health care systems worldwide [1]. According to the systematic analysis of the Global Burden of Disease Study 2023, in 2023 chronic kidney disease was identified in 788 million adults, which is almost twice the level reported in 1990 [1]. The age standardized global prevalence of the disease among the adult population reached 14.2 % [1]. Chronic kidney disease ranks among the leading causes of mortality and loss of healthy life years and is associated with approximately 1.5 million deaths annually, highlighting its growing importance as a global public health problem [1].

In European countries, the prevalence of chronic kidney disease among the adult population averages around 10 % and is characterized by marked regional variability [2]. In some Northern European countries it is approximately 3.3 %, whereas in several regions of Central and Eastern Europe it exceeds 17 % [2]. In the age group from 45 to 74 years, disease prevalence increases to 25 %. National population based studies confirm the scale of the problem and a pronounced age related dependence of the condition. According to the Health Survey for England 2022, laboratory evidence of chronic kidney disease stages one to five is detected in 22 % of adults aged 35 years and older, while more advanced stages from three to five are diagnosed in 11 % [4]. Among individuals aged 75 years and older, the prevalence of chronic kidney disease across all stages reaches nearly 50 %, indicating a substantial proportion of undiagnosed cases and a high risk of disease progression [4].

In Poland, chronic kidney disease also represents a substantial public health problem. According to data from the representative population based NATPOL 2011 survey, signs of chronic kidney disease were identified in 5.8 % of the adult population when glomerular filtration rate and markers of kidney damage were assessed [5]. Higher prevalence rates are observed in high risk groups and among elderly patients [6]. Contemporary national and regional studies indicate a considerable proportion of previously undiagnosed cases of chronic kidney disease in primary health care, which contributes to delayed diagnosis and increases the likelihood of adverse outcomes [6].

A significant proportion of patients with chronic kidney disease eventually progress to end stage renal failure, at which point renal replacement therapy becomes necessary [22, 24]. The main treatment modalities at this stage are hemodialysis and peritoneal dialysis [24]. Renal replacement therapy ensures survival for patients with end stage chronic kidney disease, with hemodialysis remaining the most widely used form worldwide [24]. Hemodialysis and peritoneal dialysis differ fundamentally in terms of treatment organization, degree of patient autonomy, and the nature of everyday burden [3, 11]. Hemodialysis requires regular attendance at a dialysis center and a strictly fixed treatment schedule, which increases patient dependence on medical infrastructure and may limit professional and social activity [3, 11]. Peritoneal dialysis, in contrast, provides greater independence and flexibility in treatment organization but requires continuous self-monitoring and strict adherence to aseptic conditions, thereby creating a specific burden for the patient and their environment [3, 11].

Dialysis is associated with limitations in professional activity, reduced social involvement, dependence on medical infrastructure, and the need for strict adherence to therapeutic regimens [3, 11]. The frequency and duration of procedures, the necessity of regular travel to dialysis centers, and the specifics of daily self-monitoring affect the physical, emotional, and social functioning of patients in different ways [3, 11]. Renal replacement therapy may be accompanied by pain, chronic fatigue, anxiety and depressive disorders, sleep disturbances, and reduced cognitive functioning, which together exert a pronounced negative impact on quality of life [36, 41, 42]. The organization of medical care, the availability of multidisciplinary support, and the quality of interaction between the patient and medical staff are also of substantial importance [23].

Improved survival of patients receiving dialysis has led to a shift in clinical priorities from the assessment of life expectancy alone to a comprehensive evaluation of its quality [24]. Health related quality of life is regarded as an independent clinically meaningful outcome associated with the risk of adverse events, hospitalization rates, treatment adherence, and the psychoemotional state of patients [11, 24, 31].

The concept of quality of life was initially understood as an integrative characteristic of subjective wellbeing, encompassing life satisfaction and a sense of happiness, and subsequently evolved into a more complex interdisciplinary and clinical concept [12, 13]. In later years, the focus shifted toward the subjective assessment of the importance of different life domains and their contribution to the overall perception of quality of life [14, 15]. In the medical context, particular importance has been assigned to the concept of health related quality of life, which describes the patient's subjective perception of the impact of disease and its treatment on physical, emotional, and

social functioning [18, 44]. For patients with chronic kidney disease, and especially those with end stage disease, quality of life is considered one of the key clinical outcomes, complementing traditional measures of survival and biomedical treatment effectiveness [22, 41, 42, 45, 46].

Despite the substantial number of publications addressing quality of life under different dialysis modalities, study results remain heterogeneous and often contradictory [3, 11]. The observed differences depend on the assessment instruments used, the structure of the studied populations, patient age, duration of renal replacement therapy, and specific features of dialysis care organization [3, 11, 44]. Even systematic reviews and meta analyses do not demonstrate a consistent advantage of one dialysis modality over the other across all quality of life domains, indicating persistent gaps in the interpretation and clinical application of the available evidence [3, 11, 44, 47].

NOVELTY

The novelty of the present narrative review lies in the integration of data on the global and regional burden of chronic kidney disease with a critical analysis of contemporary studies on quality of life in adult patients undergoing hemodialysis and peritoneal dialysis [1, 2, 3, 11]. In contrast to previously published systematic reviews and meta analyses, this review focuses on the comparability of results from individual studies, the methodological limitations of the applied instruments, and the clinical interpretation of quality of life domains in the context of everyday practice [3, 11, 44]. Particular attention is given to regional aspects, including data from Europe and Central and Eastern European countries, as well as to the consideration of quality of life as a factor that may influence the choice of dialysis modality alongside traditional medical indications [2, 26, 43, 45, 46, 48].

AIM

The aim of the present study is to summarize and critically analyze published data on the quality of life of adult patients undergoing hemodialysis and peritoneal dialysis from the perspective of their clinical relevance and applicability to therapeutic decision making.

The objectives of the study are to analyze investigations that directly compare quality of life outcomes in hemodialysis and peritoneal dialysis, to assess the impact of the measurement instruments used on the reported results, to identify quality of life domains that are most sensitive to the choice of dialysis modality, and to examine factors that modify quality of life in patients receiving renal replacement therapy.

This narrative review is intended to contribute to the development of a more evidence based and patient oriented approach to the selection of renal replacement therapy modality, taking into account medical, functional, and psychosocial aspects of adult patients' lives.

METHODS

This narrative review aimed to synthesize and critically analyze published evidence on quality of life in adult patients treated with haemodialysis and peritoneal dialysis, with attention to comparability of outcomes, instrument related limitations, and clinical interpretability.

Literature search strategy

A targeted search was conducted in PubMed, Embase, and Google Scholar. Publications available up to the time of manuscript preparation were considered. The search was limited to English and Polish language records. Search terms were combined using controlled vocabulary and free text and included chronic kidney disease, end stage kidney disease, end stage renal disease, renal replacement therapy, haemodialysis, hemodialysis, peritoneal dialysis, dialysis modality, quality of life, health related quality of life, patient reported outcomes, SF 36, KDQOL, KDQOL SF, KDQOL 36, WHOQOL, WHOQOL BREF, and EuroQol. Reference lists of eligible studies and key reviews were screened to identify additional relevant publications.

ELIGIBILITY CRITERIA

Inclusion criteria were: adult populations receiving haemodialysis and or peritoneal dialysis; reporting quality of life outcomes with validated instruments such as SF 36, KDQOL SF, KDQOL 36, WHOQOL BREF, or EuroQol; comparative primary studies, including cross sectional and longitudinal observational designs, and systematic reviews or meta analyses where dialysis modality specific quality of life results were available. In addition to direct haemodialysis versus peritoneal dialysis comparisons, studies describing determinants of quality of life in dialysis populations were eligible when they reported validated quality of life outcomes and provided clinically relevant context for interpretation of modality comparisons.

Exclusion criteria were: paediatric only populations; single case reports; descriptive narratives without clinical quality of life outcomes; publications focused exclusively on transplantation or conservative care without dialysis modality specific quality of life data; and records without accessible full text.

STUDY SELECTION AND QUALITATIVE SYNTHESIS

Titles and abstracts were screened for relevance, followed by full text evaluation of potentially eligible records. Data were extracted on study design, setting and country, participant characteristics, dialysis modality, instrument used, and reported quality of life domains and determinants. No quantitative pooling and no formal risk of bias scoring were performed, consistent with the narrative aim. Particular attention was given to heterogeneity introduced by measurement tools and domain structures, guided by evidence on dialysis specific and generic quality of life instruments and their use in dialysis populations [44]. Broader chronic kidney disease quality of life studies and dialysis specific analyses were also used to contextualize interpretation, including evidence on quality of life across chronic kidney disease stages and on dialysis, and on factors associated with quality of life in haemodialysis populations [41, 42, 45, 46, 48]. Systematic review level evidence comparing modalities and describing heterogeneity across studies was used as a framework for the narrative synthesis [3, 11]. A published protocol on chronic kidney disease related health related quality of life was treated as methodological context rather than outcome evidence [47].

RESULTS

The reviewed studies demonstrate substantial heterogeneity in reported quality of life outcomes between patients treated with haemodialysis and peritoneal dialysis, reflecting differences in study design, instruments used, population characteristics, and healthcare settings [3, 11].

An early comparative study by Theofilou conducted in Athens assessed quality of life and psychological status in 84 haemodialysis and 60 peritoneal dialysis patients using WHOQOL BREF, GHQ 28, State Trait Anxiety Inventory, CES D, and MHLC scales [29]. Haemodialysis patients reported significantly lower quality of life scores, particularly in social relationships [29]. Higher levels of anxiety, sleep disturbances, and depressive symptoms were observed in both groups, with a greater psychological burden reported in the haemodialysis group [29].

In Saudi Arabia, Al Wakeel et al. evaluated 200 dialysis patients using the KDQOL SF questionnaire [30]. Patients receiving peritoneal dialysis achieved higher scores across multiple domains, including general health, physical functioning, emotional well being, social functioning, and patient satisfaction [30]. Sociodemographic characteristics were comparable between groups [30]. The authors reported overall higher quality of life among peritoneal dialysis patients in this setting [30].

A Korean study by Kim et al. involving 237 dialysis patients used the KDQOL 36 instrument and medical record data [31]. The analysis demonstrated associations between self efficacy, treatment satisfaction, and both physical and mental components of quality of life [31]. Peritoneal dialysis patients reported fewer symptoms and problems compared to haemodialysis patients [31]. Treatment satisfaction correlated significantly with mental and physical component scores in both modalities [31].

Longitudinal data from Brazil assessed quality of life in haemodialysis and peritoneal dialysis patients over twelve months using KDQOL and SF 12 questionnaires [32]. While haemodialysis patients showed greater improvement in selected domains such as staff support and sleep quality, peritoneal dialysis patients consistently reported higher scores in burden of kidney disease, patient satisfaction, and perceived staff support at all time points [32]. Most other domains did not differ significantly between modalities [32].

Studies from Singapore, Taiwan, and the United Kingdom further illustrated the complexity of modality related comparisons. In Singapore, both haemodialysis and peritoneal dialysis patients demonstrated reduced quality of life, and modality differences varied by domain, with psychological outcomes and symptom burden contributing substantially to between group contrasts [33]. A large Taiwanese cross sectional study using the Quality of Life Index Dialysis version reported significantly lower scores across social and psychological domains among haemodialysis patients compared to peritoneal dialysis patients [34]. In older patients in the United Kingdom, analyses comparing assisted peritoneal dialysis with haemodialysis suggested differences in patient reported outcomes and functional status that were sensitive to adjustment for clinical characteristics, and did not support a uniform advantage of one modality across all quality of life domains [35, 38].

Several studies highlighted the role of clinical and biological factors. Kalender et al. demonstrated lower SF 36 scores in dialysis patients compared to controls, with peritoneal dialysis patients scoring higher than haemodialysis patients and higher depression scores observed in the haemodialysis group [36]. Inflammatory markers, nutritional status, and hematological parameters were associated with quality of life outcomes, particularly in haemodialysis patients [36].

Evidence from India and Nepal suggested higher quality of life scores among peritoneal dialysis patients, though these findings were limited by small sample sizes and local context [37, 40]. Some studies also reported modality specific complications, including peritonitis episodes in peritoneal dialysis cohorts, which may affect longitudinal interpretation of patient reported outcomes [37].

European studies, including UK based analyses and Swedish cost utility work, indicated that peritoneal dialysis may be associated with higher quality of life in selected populations and lower cost per quality adjusted life year, while survival estimates were broadly comparable within the studied cohorts [38, 39]. Polish studies similarly indicated poorer quality of life, greater post treatment discomfort, and reduced social functioning among haemodialysis patients, with dialysis frequency and treatment burden emerging as important determinants of patient reported outcomes [26, 43].

Overall, the reviewed literature does not support the existence of a consistent and universal advantage of either dialysis modality across all domains of quality of life [3, 11, 44]. Although a substantial proportion of studies report higher overall quality of life scores or favourable results in selected domains among patients treated with peritoneal dialysis, these findings are not uniform and vary considerably between populations, study designs, and healthcare settings [3, 7, 31, 32, 34]. Reported differences are frequently domain specific and sensitive to the choice of assessment instrument, analytical approach, and clinical context [3, 11, 44].

Across studies, quality of life outcomes appear to be shaped not only by dialysis modality but also by a complex interaction of psychological factors, treatment related autonomy, perceived control over daily life, symptom burden, and satisfaction with care [31, 33, 35, 36, 48]. Mental health status, including depressive symptoms and anxiety, as well as perceptions of treatment flexibility and independence, repeatedly emerge as important determinants of patient reported outcomes [29, 31, 33, 36]. In parallel, organizational aspects of care, such as access to support services, staff patient relationships, and healthcare system structure, substantially influence quality of life assessments [7, 32, 38, 39].

Taken together, the evidence suggests that differences in quality of life between haemodialysis and peritoneal dialysis cannot be attributed solely to the modality itself [3, 11]. Instead, quality of life reflects a multifactorial construct in which clinical status, psychosocial characteristics, and health system factors interact with treatment modality to determine patient experience [3, 11, 35, 44].

Table 1 summarizes key characteristics and principal quality of life findings of the studies included in this narrative review, providing a structured qualitative overview of study settings, designs, assessment instruments, and reported modality related differences.

Table 1. Comparative characteristics of studies assessing quality of life in haemodialysis and peritoneal dialysis

No.	Country	First author	Study design	Quality of life instruments	Study population	Main findings	Reference
1	Greece	Theofilou P.	Cross sectional	WHOQOL BREF GHQ 28 CES D MHLC	144 patients 84 haemodialysis 60 peritoneal dialysis	Lower overall quality of life and poorer social functioning in haemodialysis patients with higher anxiety depressive symptoms and sleep disturbances	29
2	Saudi Arabia	Al Wakeel J.A.	Cross sectional	KDQOL SF	200 patients 100 haemodialysis 100 peritoneal dialysis	Higher quality of life scores across most domains in peritoneal dialysis patients	30
3	South Korea	Kim J.Y.	Cross sectional	KDQOL 36	237 patients 172 haemodialysis 65 peritoneal dialysis	Lower symptom burden higher self efficacy and	31

No.	Country	First author	Study design	Quality of life instruments	Study population	Main findings	Reference
						treatment satisfaction associated with peritoneal dialysis	
4	Brazil	de Abreu M.M.	Longitudinal	KDQOL SF SF 12	350 patients 189 haemodialysis 161 peritoneal dialysis	Peritoneal dialysis associated with lower disease burden and higher satisfaction haemodialysis improved selected domains over time	32
5	Singapore	Griva K.	Cross sectional	HADS KDQOL SF	433 patients 232 haemodialysis 201 peritoneal dialysis	Reduced quality of life in both modalities higher depressive symptoms in peritoneal dialysis higher satisfaction with care	33
6	Taiwan	Hsu C.C.	Cross sectional	QLI Dialysis version	987 patients 600 haemodialysis 387 peritoneal dialysis	Lower quality of life scores in haemodialysis across social physical and psychological domains	34
7	United Kingdom	Iyasere O.U.	Observational	SF 12 HADS RTSQ	251 patients 122 haemodialysis 129 peritoneal dialysis	Higher treatment satisfaction in peritoneal dialysis no consistent differences in global quality of life after adjustment	35
8	Turkey	Kalender B.	Cross sectional	SF 36 BDI	115 patients 68 haemodialysis 47 peritoneal dialysis	Lower quality of life and higher depression scores in haemodialysis patients	36

No.	Country	First author	Study design	Quality of life instruments	Study population	Main findings	Reference
9	India	Makkar V.	Prospective	MHIQ PGWB	60 patients 30 haemodialysis 30 peritoneal dialysis	Higher quality of life and lower mortality in peritoneal dialysis patients	37
10	United Kingdom	Brown E.A.	Cross sectional	SF 12 HADS IIRS	140 patients 70 haemodialysis 70 peritoneal dialysis	Higher overall quality of life in peritoneal dialysis patients	38
11	Sweden	Sennfält K.	Cost utility analysis	EuroQol	136 patients 68 haemodialysis 68 peritoneal dialysis	Lower cost per quality adjusted life year with peritoneal dialysis and comparable survival	39
12	Nepal	Shrestha S.	Cross sectional	KDQOL SF	20 patients 10 haemodialysis 10 peritoneal dialysis	Lower physical and mental quality of life scores in haemodialysis patients	40
13	Portugal	Fructuoso M.	Cross sectional	KDQOL SF SF 36	51 patients 37 haemodialysis 14 peritoneal dialysis	Better physical health and perceived health status in peritoneal dialysis patients	41
14	Brazil	Condé S.A.	Cross sectional	SF 36 BDI MMSE	57 patients 30 haemodialysis 27 peritoneal dialysis	No significant differences in quality of life or depression between modalities	42
15	Poland	Dutkowska D.	Cross sectional	SF 36	72 patients 55 haemodialysis 17 peritoneal dialysis	Poorer quality of life and greater post treatment discomfort in haemodialysis patients	26

No.	Country	First author	Study design	Quality of life instruments	Study population	Main findings	Reference
16	Poland	Kapka Skrzypczak L.	Cross sectional	Author questionnaire	40 patients 30 haemodialysis 10 peritoneal dialysis	Greater pain dissatisfaction and reduced social participation in haemodialysis patients	43

Note. The results presented in the table indicate the predominant direction of reported differences across key quality of life domains, including physical functioning, mental well being, social functioning, and treatment satisfaction, as described in the original publications. The absence of reported differences denotes statistically non significant findings or heterogeneous and contradictory results across domains or analytical approaches. This table is intended to support qualitative comparison of study characteristics and outcome patterns rather than quantitative synthesis, pooled effect estimation, or ranking of dialysis modalities.

DISCUSSION

The growing body of nephrology research increasingly emphasizes quality of life as a central outcome in patients receiving renal replacement therapy [18, 21, 22]. Over recent decades, numerous studies have explored how different dialysis modalities influence physical, psychological, and social dimensions of patient experience [3, 7, 11, 29–38]. The evidence synthesized in this review indicates that dialysis modality is meaningfully associated with several domains of quality of life, although the direction and magnitude of these associations vary across studies and healthcare settings [3, 11, 33, 34].

Across the majority of reviewed publications, peritoneal dialysis is associated with more favorable outcomes in selected quality of life domains, particularly those related to autonomy, daily functioning, flexibility of treatment schedules, and maintenance of social roles [29–33, 35–38, 41, 43]. These advantages are commonly attributed to the home based nature of peritoneal dialysis, reduced travel burden, and greater perceived control over daily life [30–33, 35]. For many patients, the ability to integrate treatment into familiar routines appears to support better general well being and social participation [31, 33, 38].

At the same time, the literature does not demonstrate a uniform benefit of peritoneal dialysis across all psychological outcomes. Several studies report a substantial burden of depressive symptoms and emotional distress among patients treated with peritoneal dialysis [33, 40], while others observe lower anxiety levels among haemodialysis patients [29, 33, 35]. Regular contact with healthcare professionals, structured treatment environments, and continuous clinical monitoring may provide psychological reassurance for some individuals undergoing haemodialysis [18, 24, 35]. These findings underscore that emotional outcomes are not determined by modality alone but are shaped by individual coping strategies, support systems, and healthcare organization [11, 33, 35].

Methodological heterogeneity represents a major challenge in interpreting the available evidence. The reviewed studies employ a wide range of quality of life instruments, each emphasizing different constructs [3, 11, 44]. Generic tools such as SF 36 prioritize physical functioning and vitality, dialysis specific instruments such as KDQOL place greater weight on treatment related burden and symptom experience, while WHOQOL based measures capture broader social and psychological dimensions [29–33, 36, 44]. As a result, reported differences between modalities are often domain specific and sensitive to the choice of assessment instrument. This diversity limits direct cross study comparisons and cautions against overly simplified conclusions [3, 11, 44].

Clinical and biological factors further contribute to variability in reported outcomes. Several studies identify associations between quality of life scores and inflammatory markers, nutritional status, anemia, and comorbidity burden [36, 41, 42, 48]. Psychosocial determinants including self efficacy, perceived social support, and the ability to preserve pre illness roles consistently emerge as important modifiers of patient reported outcomes [31, 33, 35]. These interacting factors help explain why peritoneal dialysis frequently demonstrates advantages in quality of life assessments, yet fails to confer consistent benefits across all patient groups and domains [11, 33, 34].

Taken together, the evidence suggests that differences in quality of life between haemodialysis and peritoneal dialysis cannot be reduced to a single directional effect. Peritoneal dialysis is often associated with better outcomes in domains related to independence and daily functioning, whereas haemodialysis may offer advantages related to structured care and psychological security for certain patients [3, 11, 33, 35]. These findings support an individualized approach to modality selection that integrates medical eligibility with psychosocial context, functional

capacity, home environment, and patient preferences rather than reliance on modality based assumptions alone [11, 22, 35].

From a clinical perspective, the findings of this review highlight that quality of life data should be interpreted as an integral component of therapeutic decision making rather than as a secondary or descriptive outcome. Differences between haemodialysis and peritoneal dialysis observed across studies suggest that specific quality of life domains may have direct relevance for individual patients depending on age, comorbidity profile, functional status, living conditions, and personal priorities. Incorporating structured assessment of health related quality of life into routine nephrology practice may support more informed discussions about dialysis modality, help identify patients at risk of psychological distress or treatment burden, and facilitate timely supportive interventions. In this context, quality of life measures can serve not only as research outcomes but also as practical tools guiding individualized care planning and follow up.

LIMITATIONS

This narrative review has several limitations. The analysis was restricted to studies published in English and Polish, which may have resulted in the exclusion of relevant research from other regions. Substantial heterogeneity in study design, sample size, and quality of life assessment instruments limits direct comparability and precludes quantitative synthesis. Many included studies were cross sectional or single center investigations, reducing the generalizability of their findings. Finally, variations in healthcare systems and social support structures across countries further complicate interpretation of modality related differences in quality of life.

CONCLUSION

The comparison of haemodialysis and peritoneal dialysis shows that the choice of renal replacement therapy has a significant impact on the quality of life of adult patients. The most important differences concern physical functioning, the ability to maintain daily activity, emotional stability and the level of social engagement. Peritoneal dialysis in most studies is associated with a higher level of autonomy and better general wellbeing, although these advantages are observed mainly in patients who are able to perform the procedure safely at home and maintain a basic level of self-efficacy. Haemodialysis is more often accompanied by fatigue and reduced physical activity, but regular medical supervision during treatment sessions may reduce anxiety.

Differences in results are partly due to the use of heterogeneous quality of life assessment tools. SF36, KDQOL SF and WHOQOL capture different aspects of physical, psychological and social functioning, which limits the direct comparability of studies. Clinical and psychosocial factors play an important role, including the level of inflammation, nutritional status, frequency of complications, presence of comorbidities, degree of social support and the ability to maintain a customary lifestyle. Some studies report variability in outcomes related to differences between healthcare systems and dialysis care conditions.

Overall the evidence indicates advantages of peritoneal dialysis in several quality of life domains, although these advantages are not universal and depend on the patient's clinical condition, functional capacity and lifestyle. The choice of renal replacement therapy should take into account medical limitations, psychological characteristics and the individual preferences of the patient.

DISCLOSURE

AUTHORS' CONTRIBUTIONS

All authors have read and approved the final version of the manuscript.

STATEMENT ON THE USE OF ARTIFICIAL INTELLIGENCE

Artificial intelligence tools were not used in the writing or editing of this manuscript.

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