



Global Research Trends and Knowledge Structure of Interdialytic Weight Gain in Hemodialysis: A Bibliometric Analysis Study (2016–2025)

Ginsa Sabella Elmorisna Sivanda^{1*}, Arlina Dewi¹

¹Master of Hospital Administration, Universitas Muhammadiyah Yogyakarta, Indonesia

*Email correspondence: sivaginsa20@gmail.com

Track Record Article	Abstract
Revised: 03 June 2026 Accepted: 27 June 2026 Published: 30 June 2026 How to cite: Sivanda, G. S. E., & Dewi, A. (2026). Global Research Trends and Knowledge Structure of Interdialytic Weight Gain in Hemodialysis: A Bibliometric Analysis Study (2016–2025). <i>Contagion : Scientific Periodical of Public Health and Coastal Health</i>, 8(2), 579–592.	Purpose: This study aims to analyze global research trends on interdialytic weight gain (IDWG) in patients undergoing haemodialysis and to map the intellectual structure, publication patterns, and emerging research themes within the field. Design/Methodology/Approach: A bibliometric analysis with a descriptive quantitative approach was conducted using the Scopus database. Bibliographic data were retrieved on 19 January 2026 using keywords related to “interdialytic weight gain” and “hemodialysis”. A total of 170 English-language journal articles published between 2016 and 2025 met the inclusion criteria. Data were analyzed using the Bibliometrix package in RStudio and visualized using VOSviewer to examine publication performance, collaboration networks, keyword co-occurrence, and thematic evolution. Findings: The dataset comprised 170 articles published in 81 sources and authored by 1,049 researchers. The annual publication growth rate was 6.17%, with an average of 16.47 citations per document. Collaboration analysis revealed a high level of scientific cooperation, with an average of seven authors per article and an international co-authorship rate of 24.12%. Keyword co-occurrence and thematic mapping identified haemodialysis, interdialytic weight gain, and fluid management as the dominant research themes. Overlay and density visualizations indicated an increasing research interest in behavioral and psychosocial topics, including self-efficacy, adherence, and patient self-management. However, these themes remain less prominent than physiological and clinical research topics. Originality/Value: This study provides a comprehensive bibliometric overview of the global IDWG research landscape and highlights emerging thematic directions. The findings identify behavioral and psychosocial dimensions as developing but relatively underexplored areas, offering potential directions for future research in haemodialysis-related fluid management. Keywords: <i>Bibliometric Analysis, Interdialytic Weight Gain, Haemodialysis, Self-Efficacy, Adherence to Fluid Restriction.</i>

INTRODUCTION

The increasing prevalence of end-stage renal disease (ESRD) has become a significant global health challenge. Patients undergoing haemodialysis require strict fluid management because impaired kidney function limits fluid excretion. Failure to adhere to prescribed fluid restrictions may result in excessive interdialytic weight gain (IDWG), which is associated with adverse outcomes, including cardiovascular complications, hospitalization, increased mortality risk, and reduced quality of life (Lee et al., 2021; Bossola et al., 2022). Consequently, reducing excessive IDWG has become a key objective in haemodialysis care worldwide (Saran et al., 2020; Kalantar-Zadeh et al., 2022).

IDWG is widely recognized as an important indicator of fluid balance among haemodialysis patients, reflecting fluid accumulation between dialysis sessions due to excessive fluid and sodium intake combined with impaired renal excretion (Ramadhan et al.,

2023). Although fluid restriction is a fundamental component of treatment, adherence remains challenging, with substantial proportions of patients failing to comply with recommended fluid-management practices. Previous studies have shown that effective self-management behaviors, including adherence to fluid restrictions, active engagement in care, and communication with healthcare providers, contribute to improved fluid control and lower IDWG levels (Natashia et al., 2019; Ozen et al., 2019).

Psychosocial factors also play an important role in fluid-management behavior. Treatment burden, emotional distress, and limited social support may hinder adherence, whereas family and social support have been associated with better compliance and improved health outcomes (Noviana & Zahra, 2022; Rondhianto et al., 2024). Among these factors, self-efficacy has emerged as a key determinant of treatment adherence. Defined as an individual's confidence in their ability to perform specific behaviors, self-efficacy influences motivation, persistence, and self-care practices (Wu et al., 2021; Krzemińska et al., 2021; R. Zhang et al., 2025). In haemodialysis settings, higher self-efficacy has been associated with better adherence to fluid restrictions, improved self-management behaviors, and more effective control of fluid intake (Alikari et al., 2022; L. Zhang et al., 2025).

Recent studies have reported positive associations between self-efficacy, fluid-restriction adherence, and fluid-management outcomes among haemodialysis patients (Masoud et al., 2023; Chen et al., 2024; Pradhan et al., 2025). However, existing research remains fragmented across clinical, behavioral, and psychosocial perspectives, limiting a comprehensive understanding of the field's development. Furthermore, current reviews primarily focus on specific outcomes and provide limited insights into publication trends, scientific collaboration, influential contributors, and emerging research themes.

To address this gap, bibliometric analysis offers a systematic approach for examining the evolution and structure of scientific knowledge through publication trends, citation networks, collaboration patterns, and thematic developments. Therefore, this study aims to map the global research landscape on interdialytic weight gain among haemodialysis patients from 2016 to 2025. By identifying major research trends, influential contributors, and emerging topics, this study provides evidence to support future research directions in fluid management and haemodialysis care.

METHODS

This study employs a bibliometric analysis approach with a descriptive quantitative design to map the global development of research on interdialytic weight gain (IDWG) in

patients undergoing haemodialysis. Bibliometric analysis was used to identify publication trends, the contributions of authors and institutions, and the conceptual structure within the scientific literature.

Bibliographic data were obtained from the Scopus database due to its extensive coverage of international journals and consistent metadata suitable for bibliometric analysis. The database search was conducted on 19 January 2026, and all records indexed up to that date were considered for inclusion. The search was performed within the title, abstract, and keywords fields using the following query: (TITLE-ABS-KEY (‘INTERDIALYTIC WEIGHT GAIN’) AND TITLE-ABS-KEY (Hemodialysis)) AND PUBYEAR > 2015 AND PUBYEAR < 2026 AND (LIMIT-TO (SRCTYPE , ‘j’)) AND (LIMIT-TO (OA , “all”)) AND (LIMIT-TO (EXACTKEYWORD , ‘Hemodialysis’)) AND (LIMIT-TO (SUBJAREA , ‘MEDI’) OR LIMIT-TO (SUBJAREA , ‘NURS’)) AND (LIMIT-TO (DOCTYPE , “ar”)) AND (LIMIT-TO (LANGUAGE , ‘English’)). The search strategy was designed to ensure the retrieval of publications specifically related to interdialytic weight gain (IDWG) in hemodialysis patients. Inclusion criteria comprised original research articles published in peer-reviewed journals between 2016 and 2025 and written in English. Exclusion criteria included editorials, letters, conference papers, book chapters, duplicate records, and publications not directly related to the study topic. After applying the eligibility criteria and screening process, 170 articles were included in the final bibliometric analysis.

Data analysis was conducted using the Bibliometrix and RStudio software packages to analyse publication performance and research trends. Bibliometric network visualisation was carried out using VOSviewer to map keyword co-occurrence relationships and identify thematic structures within the literature. The analysis covered annual publication growth, author productivity, collaboration patterns, and the mapping of research concepts.

The initial search of the Scopus database identified 369 articles. Subsequently, a screening process was conducted based on predefined inclusion and exclusion criteria, including document type, publication language, publication year, and topic relevance. Articles that met the eligibility requirements underwent further assessment through title, abstract, and full-text screening. Following the completion of the selection process, a total of 170 articles fulfilled all inclusion criteria and were included in the final bibliometric analysis. These publications were analysed to identify research trends, scientific collaboration patterns, and thematic developments related to *interdialytic weight gain* (IDWG) among haemodialysis patients. The detailed stages of article identification, screening, eligibility assessment, and inclusion are presented in Figure 1.

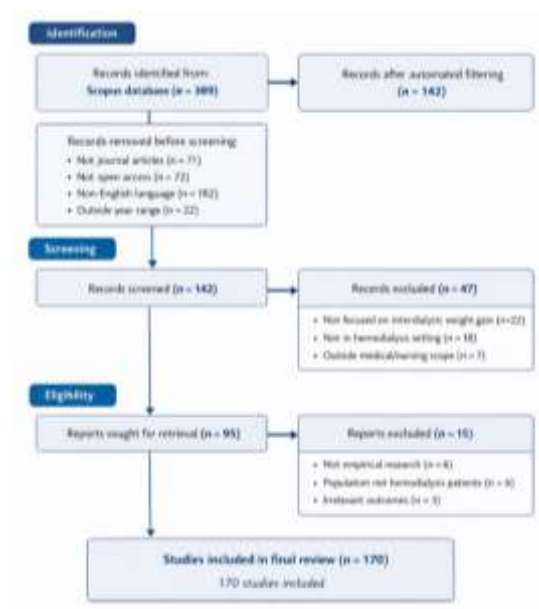


Figure 1. Research Flowchart

RESULT

Characteristics of the Retrieved Publications

A preliminary analysis was conducted to identify the general characteristics of the research dataset under analysis. The dataset in this study comprises scientific publications relating to interdialytic weight gain (IDWG) in haemodialysis patients during the period 2016–2025. Basic information regarding the number of documents, publication sources, citation patterns, and authorship characteristics was used to describe the structure and development of the literature in this field. A summary of the dataset characteristics is presented in Table 1.

Table 1. Key Information Data

Description	Results
Main Information About Data	
Timespan	2016:2025
Sources (Journals, Books, etc)	81
Documents	170
Annual Growth Rate %	6,17
Document Average Age	5,18
Average citations per doc	16,47
References	15699
Document Contents	
Keywords Plus (ID)	1448
Author's Keywords (DE)	456

Description	Results
Authors	
Authors	1049
Authors of single-authored docs	3
Authors Collaboration	
Single-authored docs	3
Co-Authors per Doc	7
International co-authorships %	24,12
Document Types	
article	170

The dataset comprises 170 journal articles published between 2016 and 2025 across 81 journal sources. Publication output grew at an annual rate of 6.17%, indicating increasing scholarly interest in the field. The average document age of 5.18 years suggests that the literature is relatively recent and remains relevant to current research developments. The articles received an average of 16.47 citations per document, reflecting a moderate to strong academic impact. In terms of content, the dataset contains 1,448 Keywords Plus and 456 Author's Keywords, highlighting the diversity of research themes. A total of 1,049 authors contributed to the publications, with an average of seven authors per article and an international collaboration rate of 24.12%, demonstrating a collaborative research environment. Overall, the findings indicate a growing and internationally connected research field with meaningful scientific contributions.

DISCUSSION

Annual Publication Trends

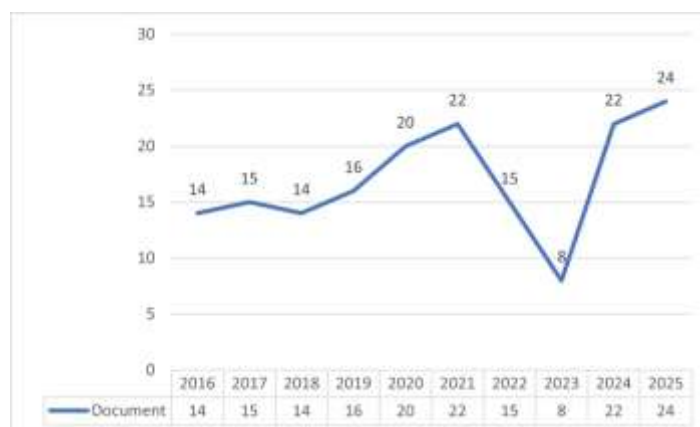


Figure 2. Publications by Year

The annual publication trend demonstrates a sustained increase in scholarly attention to interdialytic weight gain (IDWG) among haemodialysis patients during 2016–2025. A total of

170 publications were identified, with an annual growth rate of 6.17%, indicating the growing recognition of IDWG as a critical clinical issue in dialysis care. Recent studies have highlighted the multifactorial nature of IDWG. (Ozen et al., 2025) reported that IDWG significantly influences dialysis recovery time, reflecting patients' fatigue levels and post-dialysis functional capacity. Similarly, (Al Barbandi et al., 2025) identified excessive IDWG as an important indicator of fluid overload associated with increased cardiovascular risk and demonstrated that educational and clinical quality-improvement interventions can effectively reduce IDWG. Furthermore, (Yangöz et al., 2025) emphasised the role of patient self-efficacy in fluid management, suggesting that behavioral factors are essential determinants of successful fluid control. Collectively, these findings explain the increasing research interest in IDWG and underscore its importance for improving clinical outcomes and quality of life among haemodialysis patients.

International Research Collaboration Network

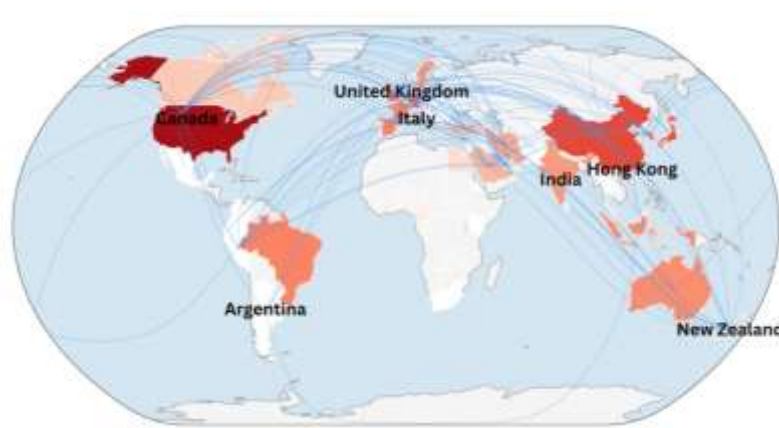


Figure 3. Cross-border collaboration

The international collaboration network on interdialytic weight gain (IDWG) and haemodialysis research demonstrates that the United States serves as a major hub, reflecting its substantial contribution to nephrology research and its extensive collaborative links with other countries. This finding is consistent with evidence suggesting that research capacity, funding availability, and the strength of academic institutions significantly influence scientific productivity and impact in nephrology studies (Flythe et al., 2013; Kalantar-Zadeh et al., 2022). Other countries, including Canada, Italy, India, Hong Kong, and New Zealand, also show active participation in collaborative research, highlighting the global nature of IDWG management and haemodialysis-related challenges. Such collaborations are essential for developing integrated approaches that combine fluid management, patient education, and continuous monitoring strategies (Bossola et al., 2025; Ramadhan et al., 2023). In addition, the prominent roles of the United Kingdom and Italy within the European network, alongside the

growing contribution of Asian countries such as India and Hong Kong, indicate an increasingly diversified research landscape driven by the rising burden of chronic kidney disease worldwide (Saran et al., 2020). Overall, the collaboration pattern underscores the importance of international partnerships in enhancing research quality and knowledge exchange, although participation remains concentrated in countries with stronger research infrastructures, highlighting opportunities for greater involvement from developing nations.

Thematic Evolution of Research Topics

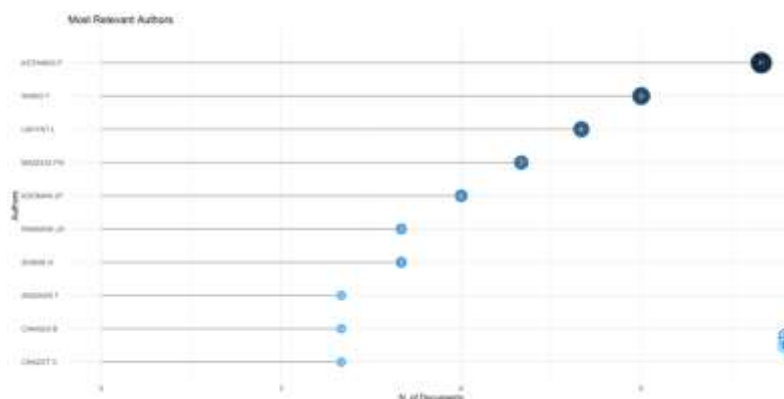


Figure 4. Most Relevant Author

The figure shows a visualisation of the “Most Relevant Authors” analysis reveals a clear concentration of scientific productivity, with one author contributing approximately 11 publications, indicating a substantial influence on the development of this research field. This finding suggests the presence of a leading researcher who plays a significant role in shaping scholarly discourse through sustained research output and collaboration networks. One notable contribution by Kotanko P et al. (2018) demonstrated that sodium adjustment positively affects fluid volume management in haemodialysis patients, particularly through reducing Interdialytic Weight Gain (IDWG), while also showing a tendency to improve pre-dialysis haemodynamic parameters, including blood pressure. The prominence of highly productive authors reflects the existence of research leadership and specialised expertise, which can accelerate knowledge development and innovation within the field.

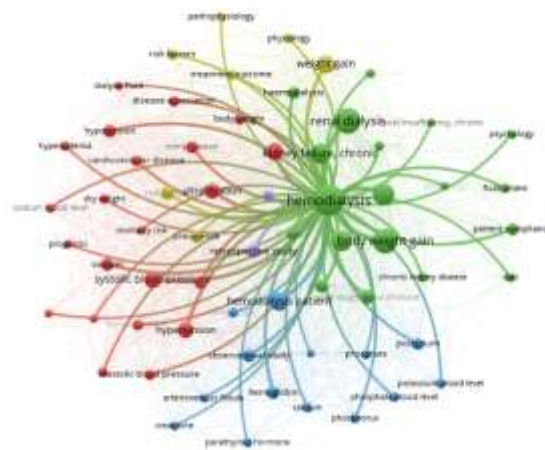


Figure 5. Network Mapping Based on Keywords

The keyword co-occurrence network generated using VOSviewer demonstrates that research on haemodialysis patients is primarily centred on fluid management and interdialytic weight gain (IDWG). IDWG represents fluid accumulation between dialysis sessions and is widely recognized as a key indicator for evaluating the effectiveness of fluid management. Excessive IDWG is associated with adverse cardiovascular outcomes, including left ventricular hypertrophy and cardiac dysfunction, highlighting its clinical significance in long-term haemodialysis care (Bossola et al., 2025).

The network visualisation reveals a dominant thematic cluster comprising haemodialysis, fluid management, and IDWG, indicating that fluid balance control remains a central focus of the literature. IDWG is frequently used to assess patients' adherence to fluid restrictions and the effectiveness of dialysis management strategies (Widyawati et al., 2019). Nevertheless, maintaining adherence to fluid restrictions remains challenging, as psychological factors, stress, family support, and educational interventions substantially influence patients' fluid management behaviors. Effective strategies therefore require a multidimensional approach that integrates patient education, dietary management, and advanced fluid assessment technologies (Mailani et al., 2021).

In addition, the network highlights the importance of behavioral and psychological dimensions, particularly self-efficacy, adherence, and patient education. Previous studies have shown that patients with higher self-efficacy demonstrate better control of fluid intake and lower IDWG levels than those with lower self-efficacy (Zhong et al., 2025; Turan et al., 2026). These findings suggest that optimising haemodialysis outcomes requires not only clinical

interventions but also strategies aimed at strengthening patients' psychological capacity and self-management skills.

Thematic Evolution of Research Topics

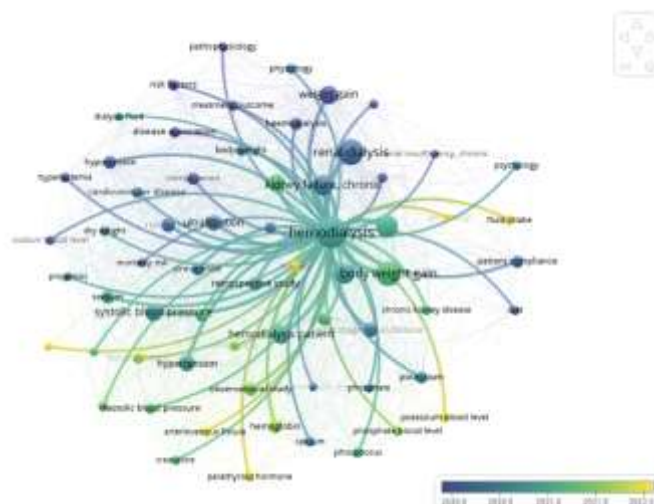


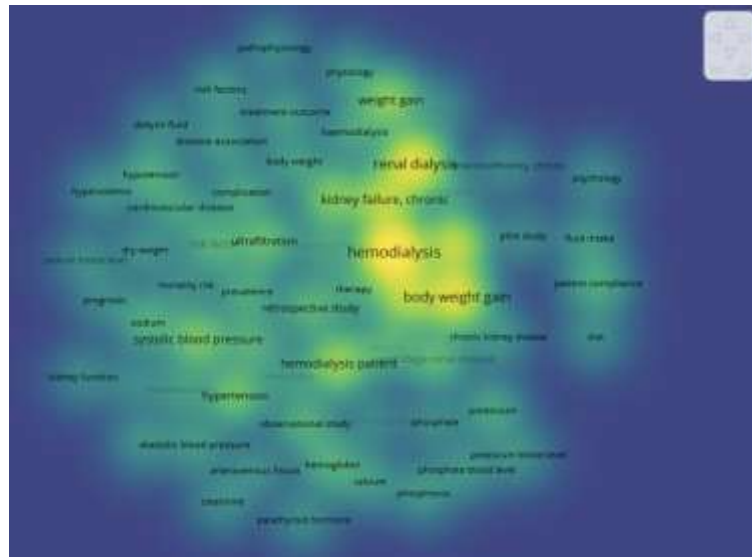
Figure 6. The development of research into interdialytic weight gain (IDWG) in haemodialysis

Source: VosViewer

The overlay visualisation demonstrates the evolution of research on interdialytic weight gain (IDWG) among haemodialysis patients. The analysis shows that haemodialysis remains the central theme, closely linked to IDWG, fluid management, cardiovascular complications, and mortality. This finding highlights the critical importance of fluid balance management in patients with end-stage kidney disease. Previous studies have identified fluid overload as a major predictor of cardiovascular complications and all-cause mortality among dialysis patients (Christa et al., 2025). Similarly, Huang et al., (2018) reported that variability in fluid overload status significantly increased mortality risk in a large cohort of haemodialysis patients.

From a temporal perspective, earlier studies primarily focused on the physiological consequences of elevated IDWG, particularly its association with hypertension, heart failure, and mortality. These studies sought to clarify the pathophysiological mechanisms linking fluid accumulation to adverse cardiovascular outcomes (Loutradis et al., 2021). More recent research has shifted towards patient-centred approaches, emphasising health education, self-management, and self-efficacy enhancement to improve adherence to fluid restrictions. Evidence suggests that such interventions can strengthen patients' knowledge and self-management capabilities, thereby contributing to reduced IDWG and improved clinical outcomes (Parker, 2019; Sajjadi et al., 2024; Isnaini et al., 2021).

Research Density and Emerging Topics



The density visualisation analysis revealed that research on interdialytic weight gain (IDWG) in haemodialysis patients is predominantly concentrated on themes related to haemodialysis, body weight changes, and fluid management. This finding indicates that the existing literature primarily focuses on physiological outcomes and the clinical consequences of fluid accumulation between dialysis sessions. IDWG remains an important indicator of fluid balance and adherence to fluid restriction, with excessive IDWG being associated with fluid overload, hypertension, cardiovascular complications, and increased mortality risk among haemodialysis patients (Bossola et al., 2025).

Vol 8

structured self-management programmes, and family-based support strategies may offer promising directions for enhancing adherence and reducing excessive IDWG.

This study is subject to several limitations, including the exclusive use of the Scopus database, potential omission of studies employing alternative terminology, and the reliance on bibliometric metadata without assessing the methodological quality of individual publications. Nevertheless, the findings provide a valuable overview of the global research landscape and identify priority areas for future investigations aimed at improving fluid management and clinical outcomes in haemodialysis patients.

CONCLUSION

This bibliometric study provides an overview of global research trends on interdialytic weight gain (IDWG) in haemodialysis patients during 2016–2025. The findings demonstrate a steady growth in scientific publications, accompanied by extensive author collaboration and international research networks. Keyword co-occurrence and thematic analyses indicate that the literature is predominantly focused on physiological and clinical aspects, particularly fluid management, cardiovascular complications, and patient outcomes. In addition, behavioral and psychosocial topics, including self-efficacy, adherence to fluid restriction, and patient self-management, have emerged as developing research themes, although they remain less prominent than traditional clinical topics. Overall, these findings illustrate the evolving knowledge structure of IDWG research and highlight the growing interest in patient-centred approaches in haemodialysis care.

REFERENCES

- Al Barbandi, M., DeFreitas, M. J., Katsoufis, C. P., Santos, L. B., Sigurjonsdottir, V., Ridore, M., Jackson, B., Vaccaro, D. S., Weir, J., & Oliva, M. (2025). Reducing Excessive Interdialytic Weight Gain in Young Hemodialysis Patients: A Quality Improvement Initiative. *Kidney Medicine*, 101109. <https://doi.org/10.1016/j.xkme.2025.101109>.
- Alikari, V., Matziou, V., Tsironi, M., Theofilou, P., Giannakopoulou, N., Tzavella, F., Fradelos, E. C., & Zyga, S. (2022). Patient knowledge, adherence to the therapeutic regimen, and quality of life in hemodialysis: knowledge, adherence, and quality of life in hemodialysis. In *GeNeDis 2020: Geriatrics* (pp. 259–272). Springer. https://doi.org/10.1007/978-3-030-78771-4_29.
- Bossola, M., Mariani, I., Strizzi, C. T., Piccinni, C. P., & Di Stasio, E. (2025). How to limit interdialytic weight gain in patients on maintenance hemodialysis: State of the art and perspectives. *Journal of Clinical Medicine*, 14(6), 1846. <https://doi.org/10.3390/jcm14061846>.
- Bossola, M., Pepe, G., Antocicco, M., Severino, A., & Di Stasio, E. (2022). Interdialytic weight gain and educational/cognitive, counseling/behavioral and psychological/affective interventions in patients on chronic hemodialysis: a systematic review and meta-analysis. *Journal of Nephrology*, 35(8), 1973–1983. <https://doi.org/10.1007/s40620->

022-01450-6.

- Chen, Z.-Q., Luo, L., Chen, X.-X., Zhang, X.-Y., Yin, S.-Q., Xiao, G.-H., Xu, N., Liu, Q., & Su, C.-Y. (2024). Dietary nutrient intake and nutritional status in maintenance hemodialysis patients: a multicenter cross-sectional survey. *Renal Failure*, 46(2), 2363589. <https://doi.org/10.1080/0886022X.2024.2363589>.
- Christa, M., Smyth, B., Mayne, K. J., Stuard, S., Canaud, B., Genser, B., & Pinter, J. (2025). Increased risk of cardiac death with cumulative exposure to fluid overload and dialysate sodium ≤ 138 mmol/l in hemodialysis patients. *Clinical Kidney Journal*, 18(10), sfaf259. <https://doi.org/10.1093/ckj/sfaf259>.
- Flythe, J. E., Curhan, G. C., & Brunelli, S. M. (2013). Disentangling the ultrafiltration rate–mortality association: The respective roles of session length and weight gain. *Clinical Journal of the American Society of Nephrology*, 8(7), 1151–1161. <https://doi.org/10.2215/CJN.09460912>.
- Huang, J.-C., Tsai, Y.-C., Wu, P.-Y., Lee, J.-J., Chen, S.-C., Chiu, Y.-W., Hsu, Y.-L., Chang, J.-M., & Chen, H.-C. (2018). Independent association of overhydration with all-cause and cardiovascular mortality adjusted for global left ventricular longitudinal systolic strain and E/E' ratio in maintenance hemodialysis patients. *Kidney and Blood Pressure Research*, 43(4), 1322–1332. <https://doi.org/10.1159/000492591>.
- Isnaini, N., Styandini, D. A., & Ratnasari, D. (2021). The effect of using booklets on patients' self-efficacy knowledge and interdialytic weight gain. *Bali Medical Journal*, 10(3), 1103–1106. <https://doi.org/10.15562/bmj.v10i3.2840>.
- Kalantar-Zadeh, K., Lockwood, M. B., Rhee, C. M., Tantisattamo, E., Andreoli, S., Balducci, A., Laffin, P., Harris, T., Knight, R., & Kumaraswami, L. (2022). Patient-centred approaches for the management of unpleasant symptoms in kidney disease. *Nature Reviews Nephrology*, 18(3), 185–198. <https://doi.org/10.1038/s41581-021-00518-z>.
- Kotanko P, S., Topping, A., Ye, X., Zhang, H., Canaud, B., Carioni, P., Marelli, C., Guinsburg, A., Power, A., & Duncan, N. (2018). Association between heights of dialysis patients and outcomes: results from a retrospective cohort study of the international MONitoring Dialysis Outcomes (MONDO) database initiative. *Blood Purification*, 45(1–3), 245–253. <https://doi.org/10.1159/000485162>.
- Krzemińska, S., Lomper, K., Chudiak, A., Ausili, D., & Uchmanowicz, I. (2021). The association of the level of self-care on adherence to treatment in patients diagnosed with type 2 diabetes. *Acta Diabetologica*, 58(4), 437–445. <https://doi.org/10.1007/s00592-020-01628-z>.
- Lee, E. J., Chang, A. K., & Chung, Y. C. (2021). Socioecological factors affecting fluid restriction adherence among Korean patients receiving hemodialysis: A qualitative study. *Journal of Transcultural Nursing*, 32(3), 239–247. <https://doi.org/10.1177/1043659620919>.
- Loutradis, C., Sarafidis, P. A., Ferro, C. J., & Zoccali, C. (2021). Volume overload in hemodialysis: diagnosis, cardiovascular consequences, and management. *Nephrology Dialysis Transplantation*, 36(12), 2182–2193. <https://doi.org/10.1093/ndt/gfaa182>.
- Mailani, F., Muthia, R., Herien, Y., Huriani, E., Mei Chan, C., & Lim Abdullah, K. (2021). *The fluid management experience in patients with chronic kidney disease undergoing hemodialysis in Indonesia: A qualitative study*. <https://doi.org/10.14710/nmjn.v11i3.38838>.
- Masoud, S. A.-E., Abd-Elaziz, S. H., Mohamed, S. K., & Abdo, O. I. (2023). Self-efficacy and adherence to medication and fluid restriction among patients undergoing hemodialysis: a correlational study. *Egyptian Nursing Journal*, 20(1), 50–56. https://doi.org/0.4103/enj.enj_4_23.
- Natashia, D., Yen, M., Chen, H., & Fetzer, S. J. (2019). Self-management behaviors in relation

- to psychological factors and interdialytic weight gain among patients undergoing hemodialysis in Indonesia. *Journal of Nursing Scholarship*, 51(4), 417–426. <https://doi.org/10.1111/jnu.12464>.
- Noviana, C. M., & Zahra, A. N. (2022). Social support and self-management among end-stage renal disease patients undergoing hemodialysis in Indonesia. *Journal of Public Health Research*, 11(2), jphr-2021. <https://doi.org/10.4081/jphr.2021.2733>.
- Ozen, N., Cinar, F. I., Askin, D., Mut, D., & Turker, T. (2019). Nonadherence in hemodialysis patients and related factors: a multicenter study. *Journal of Nursing Research*, 27(4), e36. <https://doi.org/10.1097/jnr.0000000000000309>.
- Ozen, N., Eyileten, T., Teles, P., Seloglu, B., Gurel, A., Ocuk, A., Ozen, V., Fernandes, F., Campos, L., & Coutinho, S. (2025). Impact of variables on recovery time in patients undergoing hemodialysis: an international survey. *BMC Nephrology*, 26(1), 13. <https://doi.org/10.1186/s12882-024-03937-9>.
- Parker, J. R. (2019). Use of an educational intervention to improve fluid restriction adherence in patients on hemodialysis. *Nephrology Nursing Journal*, 46(1), 43–48. <https://pubmed.ncbi.nlm.nih.gov/30835095/>.
- Pradhan, R., Tripathy, P., & Kar, D. (2025). Effect of multidisciplinary nursing intervention on interdialytic weight gain and quality of life among chronic hemodialysis patients: A randomized controlled trial. *Journal of Integrative Nursing*, 7(1), 12–20. https://doi.org/10.4103/jin.jin_6_25.
- Ramadhan, M. P., Herawati, T., Adam, M., & Yetti, K. (2023). Interdialytic weight gain levels and blood pressure changes during fluid withdrawal in hemodialysis patients. *Journal of Public Health in Africa*, 14(2), 5. <https://doi.org/10.4081/jphia.2023.2566>.
- Rondhianto, R., Murtaqib, M., & Nabila Yonda, N. (2024). Psychosocial factors affecting the adherence of chronic kidney disease patients to undergo a hemodialysis program: A cross-sectional study. <http://dx.doi.org/10.20473/jn.v19i3.48195>.
- Sajjadi, S. L., Ghafourifard, M., & Khosroshahi, H. T. (2024). A randomized controlled clinical trial of individualized patient education on hemodialysis adequacy and interdialytic weight gain. *Journal of Caring Sciences*, 14(1), 5. <https://doi.org/10.34172/jcs.025.33604>.
- Saran, R., Robinson, B., Abbott, K. C., Bragg-Gresham, J., Chen, X., Gipson, D., Gu, H., Hirth, R. A., Hutton, D., & Jin, Y. (2020). US renal data system 2019 annual data report: epidemiology of kidney disease in the United States. *American Journal of Kidney Diseases*, 75(1), A6–A7. <https://doi.org/10.1053/j.ajkd.2019.09.003>.
- Turan, G. B., Karabulutlu, C., & Özer, Z. (2026). Analysis of the Relationship Between Self-Efficacy, Adherence With Diet Therapy and Fluid Control in Patients Receiving Hemodialysis Treatment: A Structural Equation Analysis. *Hemodialysis International*, 30(1), 234–241. <https://doi.org/10.1111/hdi.70004>.
- Widyawati, I. Y., Nursalam, K., & Hargono, R. (2019). Personal factors that affect adherence of fluid restriction in patient with hemodialysis. *Indian J Public Heal Res Dev*, 10(3), 465–470. <https://doi.org/10.5958/0976-5506.2019.00540.0>.
- Wierdsma, J., van Zuilen, A., & van der Bijl, J. (2011). Self-efficacy and long-term medication use in patients with chronic kidney disease. *Journal of Renal Care*, 37(3), 158–166. <https://doi.org/10.1111/j.1755-6686.2011.00227.x>.
- Wu, J.-J., Chen, Y.-M., Talley, P. C., & Kuo, K.-M. (2021). Does online community participation contribute to medication adherence? An empirical study of patients with chronic diseases. *International Journal of Environmental Research and Public Health*, 18(10), 5100. <https://doi.org/10.3390/ijerph18105100>.
- Yangöz, Ş. T., Ceylan, H., Lindberg, M., & Özer, Z. (2025). Psychometric properties of the Turkish version of the Fluid Intake Appraisal Inventory in adults receiving

- hemodialysis. *Therapeutic Apheresis and Dialysis*, 29(3), 395–407. <https://doi.org/10.1111/1744-9987.70003>.
- Zhang, L., Wang, F., Tashiro, S., & Liu, P. J. (2025). Nutritional and exercise interventions for muscle status in hemodialysis patients: A systematic review and network meta-analysis. *Clinical Nutrition*. <https://doi.org/10.1016/j.clnu.2025.08.005>.
- Zhang, R., Li, X., Luo, H., Niu, J., & Zhang, H. (2025). Effect of self-efficacy, disease perception, social support, anxiety, and depression on self-management in young patients with stroke. *Journal of Neuroscience Nursing*, 57(2), 68–73. <https://doi.org/10.1097/JNN.0000000000000813>.
- Zhong, X., Wang, X., Gao, Z., & Ren, H. (2025). Self-efficacy status and influential factors of fluid intake in patients on maintenance hemodialysis. *Therapeutic Apheresis and Dialysis*, 29(3), 387–394. <https://doi.org/10.1111/1744-9987.14255>.