



### REVIEWER'S REPORT

Manuscript No.: IJAR- 50377

Date: 21/02/2025

**Title: "Effect of Comprehensive Nursing Intervention on Self-Care Practices of Patients Undergoing Hemodialysis"**

**Recommendation:**

- Accept as it is .....
- ✓ Accept after minor revision.....
- Accept after major revision .....
- Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity		✓		
Significance		✓		

Reviewer Name: Dr. S. K. Nath

Date: 22/02/2025

**Reviewer's Comment for Publication:**

This study offers valuable evidence on the effectiveness of comprehensive nursing interventions for enhancing self-care practices among hemodialysis patients. The use of a randomized controlled design and robust statistical analysis adds credibility to the findings.

However, the study could be strengthened by addressing limitations related to sample diversity, participant blinding, and longer-term follow-up. Despite these minor issues, the research provides a solid foundation for further investigation into nursing interventions that can improve patient outcomes in chronic kidney disease management.

### *Reviewer's Comment / Report*

**Strengths of the Study**

1. **Relevance and Significance:** The study addresses an important issue: improving self-care practices among hemodialysis patients. This is crucial since patient adherence to care practices significantly impacts treatment outcomes and overall quality of life. Focuses on a vulnerable population in a resource-constrained setting (Uttarakhand, India), adding valuable insights for healthcare interventions in similar contexts.
2. **Robust Methodology:** The use of a Randomized Controlled Trial (RCT) with a Time Series Design strengthens the reliability of the study. Proper randomization using the Sequentially Numbered Opaque Sealed Envelopes (SNOOSE) method reduces selection bias. Adequate sample size calculation and adjustment for dropout rates enhance the statistical power of the study.
3. **Comprehensive Intervention:** The intervention is well-structured and covers critical areas for hemodialysis patients, including fistula care, dietary management, fluid restriction, physical activity, and psychological well-being. Practical components like demonstration of exercises and potassium leaching increase real-world applicability.

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4. **Detailed Outcome Measurement:** The use of a structured Self-Care Practice Checklist ensures consistent and reliable assessment of patient practices. Regular follow-ups at 12 and 24 weeks allow for meaningful assessment of both short-term and mid-term effects.

5. **Significant Findings:** The results indicate that comprehensive nursing intervention led to significant improvements in all self-care areas compared to routine care ( $p < 0.001$  for all outcomes). The study effectively demonstrates the potential for improving patient outcomes through structured educational interventions.

### Weaknesses and Areas for Improvement

1. **Lack of Blinding:** The study is not double-blinded, meaning participants were aware of their group allocation, which could introduce response bias in self-reported measures.

2. **Limited Duration of Follow-Up:** A 6-month follow-up might not be sufficient to observe long-term behavioral changes or health outcomes related to improved self-care practices. Longer-term effects, especially regarding complications or hospitalizations, would offer a more comprehensive understanding of intervention efficacy.

3. **Potential for Reporting Bias:** The reliance on self-reported questionnaires could introduce social desirability bias—patients may over-report adherence due to the presence of researchers.

4. **Lack of Qualitative Insights:** While the quantitative outcomes are robust, the study would have benefited from qualitative insights through patient interviews or focus groups to explore barriers to adherence more deeply.

5. **Generalizability Limitations:** The study was conducted at a single center in Uttarakhand, which may limit its generalizability to other regions with different cultural, economic, or healthcare contexts.

6. **Incomplete Reporting on Intervention Adherence:** The paper does not provide detailed information on how consistently patients followed the intervention protocol over time, which could impact the results.

### Suggestions for Future Research

1. **Long-Term Follow-Up:** Conduct studies with at least 12-18 months of follow-up to assess the sustainability of self-care improvements and their impact on clinical outcomes.

2. **Double-Blind Design:** Future research could incorporate a blinded assessment process to minimize bias, especially when using subjective self-report tools.

3. **Qualitative Component:** Adding patient interviews could provide valuable insights into challenges faced by patients in adhering to self-care practices and how interventions could be refined.

4. **Multi-Center Trials:** Conducting similar studies across multiple centers in different regions would enhance the generalizability of the findings.

5. **Digital Health Support:** Exploring the use of mobile applications or telehealth interventions could help in tracking and promoting adherence to self-care practices over the long term.