

REVIEWER'S REPORT

Manuscript No.: IJAR-53383

Date: 18-08-2025

Title: EVALUATING PATIENT SATISFACTION THROUGH A FUZZY LOGIC FRAMEWORK BASED ON SIMULATED PROFILES"

Recommendation:

Accept as it isYES.....

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: Mr Bilal Mir

Reviewer's Comment for Publication.

Abstract Evaluation:

The abstract outlines the core challenge of assessing patient satisfaction, emphasizing its subjective and multidimensional nature. It introduces a fuzzy logic framework as a solution, highlighting the use of linguistic variables and Mamdani inference for modeling patient perceptions. The methodology is described clearly, noting the use of eight key satisfaction dimensions, membership functions, and simulation through fifty synthetic patient profiles. The results indicate the model's interpretability and its potential for integration into healthcare quality monitoring. The abstract effectively presents the motivation, method, and significance of the study, while positioning it as a preparatory step before empirical application.

Introduction Evaluation:

The introduction situates the study within the broader context of healthcare quality improvement, emphasizing the importance of patient satisfaction as a performance indicator. It

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connects satisfaction not only to health outcomes but also to service utilization and policy decision-making. The text acknowledges the multidimensional and subjective nature of satisfaction, referencing relational, organizational, and environmental dimensions. This establishes a strong conceptual foundation for applying fuzzy logic as a methodological approach.

Content Strengths:

- The research addresses an important and complex issue in healthcare evaluation by focusing on patient satisfaction.
 - The fuzzy logic framework is presented as an innovative approach to handle the vagueness and subjectivity inherent in patient perceptions.
 - The study is structured around eight satisfaction dimensions, covering key aspects of patient experience such as communication, accessibility, competence, outcomes, and infrastructure.
 - The methodology is transparent, detailing the use of membership functions, inference mechanisms, and the simulation of patient profiles.
 - The use of a synthetic dataset provides an initial validation, allowing for the assessment of system performance before real-world data collection.
 - The results underscore the flexibility of fuzzy logic in healthcare evaluation and the potential for its integration into quality monitoring systems.
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Overall Assessment:

The manuscript presents a relevant and well-defined contribution to the field of healthcare quality assessment. By combining fuzzy logic with simulated patient profiles, it effectively demonstrates how computational models can capture the complexity of subjective evaluations. The study establishes a foundation for future empirical applications, showcasing the adaptability of fuzzy logic to patient-centered evaluation frameworks.
