

Patient satisfaction, perceived empathy, and quality of recovery among elderly postoperative patients: a cross-sectional study



Original Article

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Abstract: **Objective:** Healthcare service satisfaction focuses not only on the patients but also on the overall quality and effectiveness of the care provided. This study aimed to explore the correlation between patients' perceptions of empathy, patient satisfaction, and the quality of recovery in elderly patients undergoing postoperative care for lower extremity fractures under spinal anesthesia. **Methods:** In the present cross-sectional study, 138 elderly patients who underwent surgery for lower extremity fracture and spinal anesthesia were selected for inclusion in the study. The questionnaire included demographic characteristics, the Jefferson Scale of Patient Perception of Physician Empathy, the Patient Satisfaction Scale, and the Postoperative Quality of Recovery Score. Multivariate regression was performed to evaluate the associations between patient-reported factors and satisfaction. **Results:** The overall average scores for patient perception of empathy, quality of recovery, and patient satisfaction were 20.30 (1.18), 110.11 (8.26), and 156.86 (5.44), respectively. There was a statistically significant positive correlation between patient quality of recovery and patient perception of empathy and patient satisfaction ($p < 0.01$). **Conclusions:** This finding could also inform policymaking and the development of guidelines aimed at improving the quality of healthcare delivery. This study encouraged healthcare organizations and institutions to foster empathy in healthcare interactions, which may positively impact patient satisfaction and subsequent recovery outcomes, and patient-centered care.

Keywords: elderly patient • empathy • lower extremity fracture • patient satisfaction • quality of recovery

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1. Introduction

The aging population is a global issue, and in Vietnam, the Ministry of Health recognizes individuals aged 60 and older as elderly, leading to significant social and healthcare challenges.¹ One of these challenges is the high occurrence of osteoporosis-related fractures,

especially those affecting the lower extremities. This places a heavy burden on both healthcare providers and elderly patients. Furthermore, they represent a significant burden of disease, impacting the physical health and well-being of older individuals and placing

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strain on healthcare resources and providers.^{2,3} Despite recognizing these challenges, limited research has comprehensively examined the specific perceptions of healthcare services and recovery outcomes for elderly Vietnamese patients who undergo surgery for lower extremity fractures.

Patient perception of healthcare has increasingly been recognized as a structural indicator of healthcare service quality. Research by Asamrew et al.⁴ and Manzoor et al.⁵ underscore the importance of understanding patient perspectives to enhance healthcare service quality. In the realm of elderly patient care, the role of empathy and the relationships formed between healthcare providers and elderly patients assume paramount importance. Healthcare providers who exhibit empathy and cultivate positive rapport with patients have the potential to assuage patient anxieties, enhance their satisfaction, and positively influence the quality of their recovery. While existing research predominantly addresses general patient satisfaction and care quality, a significant knowledge gap persists regarding the influence of patient perceptions of empathy, particularly within the cohort of elderly postoperative patients.

The Synergy model underscores the importance of grasping patients' perspectives, preferences, and values and integrating these into healthcare decision-making and delivery.⁶⁻⁸ Furthermore, this model acknowledges the patient as an active participant in their care and emphasizes collaboration between healthcare providers and patients to attain optimal health outcomes. In the context of evaluating the postsurgical period, adopting a multimodal, patient-centered approach is essential for a thorough assessment of recovery quality.⁹ This approach involves considering various aspects of the patient's experience. By integrating the pertinent components into the assessment process, healthcare providers can comprehensively comprehend the recovery journey of patients and devise customized interventions to optimize outcomes. Incorporating the principles of the Synergy model, coupled with a patient-centric approach to post-surgical care, can pave the way for delivering more personalized and effective healthcare services.

In addition, addressing the healthcare needs of the elderly in Vietnam requires a comprehensive approach that considers not only medical treatment but also the healthcare provider's competence, and the overall capacity of the healthcare system to meet the needs of an aging population. This may involve implementing policies and programs aimed at improving preventive measures, increasing healthcare resources targeted toward geriatric care, and enhancing the coordination of services to ensure timely and effective treatment for elderly patients. As a consequence, the Synergy model

is a valuable framework to ensure providing personalized and patient-centric care.

Therefore, the primary objective of this study was to determine patient satisfaction, empathy, and quality of recovery in elderly patients who underwent surgery for lower extremity fractures and spinal anesthesia. A secondary objective was to explore the correlation between patients' perception of empathy and patient satisfaction and quality of recovery. This study aims to provide a more comprehensive understanding of the recovery process and offer evidence-based insights that could inform improvements in geriatric care.

2. Methods

This cross-sectional study was conducted on 138 elderly patients who underwent lower extremity fracture surgery with spinal anesthesia at X hospital from October 2021 to April 2022. The study included individuals who were 60 years of age or older and had undergone surgery for the lower extremity fracture. They must have received spinal anesthesia during surgery and been in a stable postoperative recovery condition. The study excluded individuals who were unable to communicate due to language barriers, severe hearing loss, or speech impairments. It also excluded individuals with cognitive impairments such as dementia, those diagnosed with psychiatric disorders, and medically unstable patients or those experiencing postoperative complications.

The sample size was estimated based on the G*power 3.1.3 program (Heinrich-Heine-University, Düsseldorf, Germany) with multiple regression. We assumed a significance level of 0.05, effect size of 0.30, and statistical power of 95%. After a 10% drop-out rate was added, 150 elderly patients were selected and agreed to participate in the study. While conducting the survey, 12 patients did not complete the study survey. Finally, 138 patients were involved in this study.

This study adopted a structured questionnaire to collect participant information, patient perceptions of health care providers' empathy, patient satisfaction, and quality of recovery after surgery. The participant information forms included age, living place, hospital history, treatment costs, comorbidities, and surgical method.

Patient perception of health care providers' empathy: The Jefferson Scale of Patient Perceptions of Physician Empathy includes 5 items to measure patients' perception of clinicians' empathy. This scale plays an important role in assessing the relationship between patients and doctors/nurses.¹⁰ The tool is scored on a 5-point Likert scale ranging from completely agree (5) to strongly disagree (1), scores range from 5 points to 25 points, and the higher the score is, the greater the

patient's agreement about the healthcare provider's empathy. Cronbach's alpha showed acceptable reliability ($\alpha = 0.65$) in this study.

Quality of recovery after surgery: The Quality of Recovery-15 questionnaire (QoR15) is a global measure used to assess the health status of patients after surgery.¹¹ The QoR15 questionnaire consists of 15 items with 2 dimensions: physical and mental well-being. This tool uses an 11-point Likert scale, and scores range from 0 to 150, with higher scores indicating good recovery. The QoR-15 score is classified into four classes: excellent, good, moderate, and poor recovery (136–150, 122–135, 90–121, and 0–89, respectively).¹² In this study, the reliability coefficient of the QoR15 was Cronbach's α (0.85). The Jefferson Scale of Patient Perceptions of Physician Empathy and Quality of Recovery-15 was translated from English into Vietnamese through the back translation process of the World Health Organization.¹³

Patient satisfaction: The measurement instrument was developed by researchers to assess the satisfaction level of elderly patients after lower limb fracture surgery and included 40 items in four dimensions: accessibility of medical services/information transparency (9 items), medical facilities and equipment (10 items), nursing care (13 items), communication attitude, behavior, and health education (8 items). In this study, we used a 5-point Likert scale ranging from 40 to 200 to assess patient satisfaction, ranging from very dissatisfied (1) to very satisfied (5). The content validity of the questionnaire was assessed by four health experts using the Content Validity Index.¹⁴ Acceptable CVI scores of 0.96 and 0.8.5 for the scale-CVI and item-CVI were recorded, respectively. The final questionnaire was piloted with a group of 35 elderly patients belonging to the target population in which the questionnaire was to be used. The reliability of the scale (Cronbach's alpha) was 0.75. These results showed that this instrument had good reliability and validity in representing patient satisfaction.

After obtaining ethics approval and institutional permission, we visited the wards of the participating hospital to identify patients who met the inclusion criteria. We sought permission from the ward doctors and nurses before conducting face-to-face interviews with the participants. To ensure consistency and reduce inter-observer bias during data collection, all data collectors received training. The study's researchers and assistants conducted interviews with the participants. The assistants who possessed prior experience in health education underwent a one-day training session. Before data collection, we explained the study's objectives and procedures to all participants and obtained written informed consent from them. During the interview, participants were encouraged to ask questions

about the study and assured that their participation was voluntary. The participants completed the survey within a 30–60 min time frame, with support from the researcher and assistants. In some cases, we read out the questionnaire to them and recorded their responses. Participants were allowed to complete the questionnaire at their convenience. Unfortunately, 12 patients were unable to complete the study due to discomfort.

The data analysis was performed using SPSS version 26.0. Descriptive statistics, such as absolute frequency distribution and frequency percentile, mean and standard deviation, frequency distribution tables, numerical indices calculation, and inferential statistics were used to describe the samples' characteristics. To determine the patients' satisfaction levels, we calculated the average total scores of all items. This resulted in a range of scores from 40 to 200. Finally, we conducted a multivariable linear regression model to establish the relationship between patient satisfaction, empathy, and quality of recovery. The statistical consultant approved the data analysis.

We obtained ethical approval for this study from the Medical Ethics Committee of Hue University of Medicine and Pharmacy, Hue University under the ethics code (H2021/267). All procedures used in this study adhere to the principles of the Declaration of Helsinki. Each participant was asked to sign an informed consent form on the cover sheet of the questionnaires. We explained the purpose of the study, as well as its potential benefits and risks, to the participants before collecting data. We also informed the participants that they could withdraw from the study at any time, even after giving their consent. Additionally, we assured them that refusal to participate in the study would not affect the quality of service they received from the hospitals.

3. Results

3.1. Characteristics of participants

A total of 138 elderly patients were enrolled in the study. The mean age of the patients in the study was 71.65 (SD = 8.38) years. Slightly more than half (56.52%) lived in urban areas. Over half had previously been hospitalized (65.22%) (Table 1).

3.2. Patient's perception of healthcare provider's empathy, quality of recovery, and patient satisfaction

The mean scores of patients' perceptions of the healthcare providers' empathy, quality of recovery, and patient satisfaction variables are presented in Table 2. The

Variables and categories	N	%
<i>Age (years), Mean $\pm$ SD = (71.65 $\pm$ 8.38)</i>		
60–69	68	49.28
70–79	35	25.36
≥ 80	35	35.36
<i>Living place</i>		
Urban	78	56.52
Rural	60	43.48
<i>Treatment costs</i>		
Insurance	133	96.38
Self-pay	5	3.62
<i>Surgical method</i>		
Intramedullary nailing	41	29.71
Splints	43	31.16
Hip replacement	26	18.84
Steel threaded	17	12.32
Other	11	7.97

Table 1. Participant characteristics (N = 138).

Domain	Mean $\pm$ SD	Min–Max
Patient's perception of empathy	20.30 $\pm$ 1.18	17–23
Quality of recovery	110.11 $\pm$ 8.26	92–125
Patients satisfaction	156.86 $\pm$ 5.44	137–170
Accessibility of medical services/ information transparency	36.70 $\pm$ 2.59	30–44
Medical facilities/equipment	38.20 $\pm$ 2.38	31–44
Nursing care	50.33 $\pm$ 2.67	44–57
Communication attitude, behavior, health education	31.67 $\pm$ 2.22	26–37

Table 2. Descriptive statistics for patient's perception of empathy, quality of recovery, and patient satisfaction (N = 138).

mean overall score for patients' perceptions of their physician's empathy was 20.30 (SD = 1.18), with a range of 17–23. The mean recovery quality score was 110.11 (SD = 8.26). The overall mean patient satisfaction was 156.86 (SD = 5.44), as were that of four domains: healthcare facility/information transparency (36.70 $\pm$ 2.59), medical facility/equipment (38.20 $\pm$ 2.38), nursing care (50.33 $\pm$ 2.67), communication attitude, behavior, and health education (31.67 $\pm$ 2.22).

As shown in Table 3, patients' perceptions of healthcare providers' empathy and quality of recovery had a positive and significant relationship with patient satisfaction ($\beta = 3.697$, $\beta = 2.820$, $p < 0.01$). Similarly, patients' perceptions of healthcare providers' empathy, healthcare facilities, and information transparency were positively associated ($\beta = 2.305$, $p < 0.05$). Furthermore, the quality of recovery and medical facilities

and equipment had a positive and significant correlation ($\beta = 2.545$, $p < 0.05$). Furthermore, the perception of healthcare providers' empathy was significant and positive ($\beta = 3.833$, $p < 0.01$) for communication attitudes, behavior, and health education.

4. Discussion

This study offers foundational data for assessing patient perceptions of empathy, satisfaction, and recovery quality among elderly postoperative patients. Our research revealed that the overall mean patient perception of empathy, satisfaction, and quality of recovery was average (20.30 $\pm$ 1.18, 156.86 $\pm$ 5.44, 110.11 $\pm$ 8.26, respectively). Empathy is a fundamental aspect of healthcare that contributes to building relationships between healthcare providers and patients and ultimately leads to better patient outcomes and a higher quality of care.¹⁵ These results contrast with those of a previous study in which the mean score for healthcare provider's empathy was greater than that of the other scores.^{16,17} It is possible that the perceived level of empathy might not align with the actual experience of patients. Patient perceptions can be influenced by various factors, including patient expectations, cultural backgrounds, and personal biases. Therefore, even in cases where the mean score is high, it is still valuable to prioritize empathy as a critical component for further enhancing the healthcare experience and outcomes. Continued efforts to cultivate and promote empathy among healthcare providers could further strengthen provider-patient relationships and improve healthcare experiences and outcomes.

Our results indicated that there is a significant relationship between patients' perception of empathy and their satisfaction, particularly in aspects of accessibility of medical services/information and communication attitude, behavior, and health education. These results are similar to those of other studies.^{4,18–20} Empathetic care is essential in healthcare, both ethically and practically. Receiving empathy makes medical services more accessible, and the provided information becomes easier to understand and more relevant to patients' situations. This perception can build trust and improve communication, leading to patients feeling more informed and involved in their care. The connection between empathy and satisfaction in health education indicates that when healthcare providers make an effort to grasp patients' individual situations and personalize health education accordingly, it can result in more impactful patient engagement and empowerment. As a result, patients may feel more capable of managing their health, leading to increased satisfaction with the care they receive.

Variable	Accessibility of medical services/information transparency		Medical facilities/equipment		Nursing care		Communication attitude, behavior, and health education		Patient satisfaction	
Predictors	β	t	β	t	β	t	β	t	β	t
Age	0.03	0.22	0.11	0.91	-0.01	-0.08	0.16	1.38	0.12	1.05
Patient perception of empathy	0.20	2.31*	0.15	1.75	0.03	0.32	0.31	3.83**	0.30	3.70**
Quality of recovery	0.16	1.35	0.30	2.55*	0.04	0.34	0.22	1.98	0.32	2.82**
	$F = 2.48$		$F = 3.41$		$F = 0.13$		$F = 6.09$		$F = 7.20$	
	$p = 0.06$		$p = 0.02$		$p = 0.95$		$p = 0.001$		$p = 0.000$	
	$R^2 = 0.05$		$R^2 = 0.07$		$R^2 = 0.003$		$R^2 = 0.12$		$R^2 = 0.14$	
	$R^2_{Adjusted} = 0.03$		$R^2_{Adjusted} = 0.05$		$R^2_{Adjusted} = -0.02$		$R^2_{Adjusted} = 0.10$		$R^2_{Adjusted} = 0.12$	

Note: * $p < 0.05$; ** $p < 0.01$.

Table 3. Multiple linear regressions for predictive variables of patient satisfaction (N = 138).

The strong correlation between patients' perceptions of healthcare providers' empathy and their satisfaction aligns with the Synergy Model's focus on acknowledging and addressing patient needs. Empathy is a key component of the model, allowing healthcare providers to comprehend and attend to the unique emotional and psychological requirements of elderly postoperative patients. These findings also underscore the essential nature of effective communication, patient education, and the quality of healthcare facilities in achieving optimal patient outcomes. The significant association between empathy and communication attitudes, behavior, and health education highlights the importance of these skills in meeting patients' needs. By delivering clear information and engaging in empathetic communication, healthcare providers could improve patients' understanding of their condition and recovery process, ultimately increasing their satisfaction and perceived quality of care.

This study findings demonstrate a significant association between patient satisfaction and the quality of postoperative recovery. Specifically, we observed a positive correlation between the quality of recovery and the aspects of patient satisfaction related to the medical facility and equipment ($p < 0.05$). Medical facilities equipped with a broad range of services and advanced equipment are capable of delivering comprehensive care during the recovery phase. Patients' confidence and trust in the care they receive are often reinforced by well-equipped medical facilities. The provision of access to advanced medical facilities and the maintenance of high-quality environments could further optimize patient outcomes and contribute to the overall satisfaction with healthcare services. Moreover, the Synergy Model emphasizes the significance of the healthcare environment in aiding

patient recovery. The demonstrated link between recovery quality and the availability of medical facilities and equipment suggests that a well-equipped environment leads to improved outcomes. This discovery aligns with the model's assertion that the healthcare setting should be conducive to effectively meeting patient needs.

The results of this study reveal a significant connection between patient satisfaction and both the perception of empathy and the quality of postoperative recovery. Previous analysis showed that patient satisfaction was related to quality recovery.²¹ Several researches have shown that physician empathy is strongly correlated with patient satisfaction.^{22,23} Our research highlights the pivotal role of empathy and recovery quality in shaping patients' overall satisfaction with their healthcare experiences. The findings of this study are in alignment with the Synergy Theory, emphasizing the significance of harmonizing patient needs with healthcare providers' competencies to attain optimal outcomes. Empathy extends beyond understanding patients' emotions and encompasses providing tailored support that enhances the quality of care and recovery. Furthermore, the correlation between recovery quality and patient satisfaction reaffirms the theory's emphasis on integrating patient-centered care with clinical competencies. Well-coordinated care encompassing adequate medical facilities, equipment, efficient communication, and empathy is imperative in meeting patients' needs and ensuring favorable outcomes. Our results indicate that patients perceiving high levels of empathy from their healthcare providers, particularly nurses, are likely to experience heightened satisfaction with their care and improved postoperative recovery outcomes.

The study limitations were the specific subset of individuals who met the criteria of being elderly and having

undergone surgery with spinal anesthesia. As a result, the findings of this study might only apply to this specific group and cannot be generalized to the broader population. Thus, further research using more diverse and representative samples would be beneficial to strengthen the generalizability of these findings. Longitudinal studies could also be carried out to assess how changes in empathy and recovery quality affect patient satisfaction over time.

5. Conclusions

In conclusion, this study revealed moderate patient satisfaction, quality of recovery, and patient perception of empathy among elderly patients who underwent surgery for lower extremity fractures and spinal anesthesia. These findings offer practical insights for healthcare providers, emphasizing the importance of integrating empathetic interactions with high-quality recovery

environments to improve patient outcomes. By emphasizing empathy as part of healthcare education, healthcare professionals could enhance patient satisfaction and the overall quality of recovery for elderly patients undergoing surgery with spinal anesthesia. Our findings suggest that empathy training should be urgently integrated into healthcare curricula. Additionally, improving the quality of medical services is critical to ensure accessible and equitable healthcare for the population.

Ethical approval

This study was approved by the Medical Ethics Committee of Hue University of Medicine and Pharmacy, Hue University (IRB approval number: H2021/267).

Conflicts of interest

All contributing authors declare no conflicts of interest.

References

1. Tung LT. Social responses for older people in COVID-19 pandemic: experience from Vietnam. *J Gerontol Soc Work*. 2020;63(6–7):682–687.
2. Cristelo D, Ferreira MN, Castro JSE, Teles AR, Campos M, Abelha F. Quality of recovery in elderly patients with postoperative delirium. *Saudi J Anaesth*. 2019;13:285–289.
3. Donohoe E, Roberts HJ, Miclau T, Kreder H. Management of lower extremity fractures in the elderly: a focus on post-operative rehabilitation. *Injury*. 2020;51(suppl 2):S118–S122.
4. Asamrew N, Endris AA, Tadesse M. Level of patient satisfaction with inpatient services and its determinants: a study of a specialized hospital in Ethiopia. *J Environ Public Health*. 2020;2020:2473469.
5. Manzoor F, Wei L, Hussain A, Asif M, Shah SIA. Patient satisfaction with health care services, an application of physician's behavior as a moderator. *Int J Environ Res Public Health*. 2019;16:3318.
6. Curley M. The AACN Synergy Model for patient care revisited. Synergy: The Unique Relationship Between Nurses and Patients. Indianapolis, IN: Sigma Theta Tau International. 2007:25–35.
7. Santana MJ, Manalili K, Jolley RJ, Zelinsky S, Quan H, Lu M. How to practice person-centred care: a conceptual framework. *Health Expect*. 2018;21:429–440.
8. Dellafiore F, Caruso R, Nania T, et al. Does the synergy model implementation improve the transition from in-hospital to primary care? The experience from an Italian cardiac surgery unit, perspectives, and future implications. *Int J Environ Res Public Health*. 2022;19:5624.
9. Borrell-Vega J, Humeidan ML, Bergese SD. Defining quality of recovery – What is important to patients? *Best Pract Res Clin Anaesthesiol*. 2018;32(3–4):259–268.
10. Kane GC, Gotto JL, Mangione S, West S, Hojat M. Jefferson scale of patient's perceptions of physician empathy: preliminary psychometric data. *Croat Med J*. 2007;48:81–86.
11. Stark PA, Myles PS, Burke JA. Development and psychometric evaluation of a postoperative quality of recovery score: the QoR-15. *Anesthesiology*. 2013;118:1332–1340.
12. Kleif J, Gögenur I. Severity classification of the quality of recovery-15 score – An observational study. *J Surg Res*. 2018;225:101–107.
13. WHO. *Process of Translation and Adaptation of Instruments*. WHO; 2024. https://www.who.int/docs/default-source/publishing-policies/whoqol-100-guidelines/translation-methodology.pdf?sfvrsn=74cdb8f5_2. Accessed March 19, 2024.
14. Polit DF, Beck CT. The content validity index: are you sure you know what's being reported? Critique and recommendations. *Res Nurs Health*. 2006;29:489–497.
15. Hojat M, DeSantis J, Gonnella JS. Patient perceptions of clinician's empathy: measurement and psychometrics. *J Patient Exp*. 2017;4:78–83.

16. Abdulkader RS, Venugopal D, Jeyashree K, Al Zayer Z, Senthamarai Kannan K, Jebitha R. The intricate relationship between client perceptions of physician empathy and physician self-assessment: lessons for reforming clinical practice. *J Patient Exp.* 2022;9:23743735221077537.
17. Borracci RA, Doval HC, Celano L, Ciancio A, Manente D, Calderón JGE. Patients' perceptions of argentine physicians' empathy based on the Jefferson scale of patient's perceptions of physician empathy: psychometric data and demographic differences. *Educ Health Abingdon Engl.* 2017;30:19–25.
18. Adhikari M, Paudel NR, Mishra SR, Shrestha A, Upadhyaya DP. Patient satisfaction and its socio-demographic correlates in a tertiary public hospital in Nepal: a cross-sectional study. *BMC Health Serv Res.* 2021;21:135.
19. Simões JA, Prazeres F, Maricoto T, et al. Physician empathy and patient enablement: Survey in the Portuguese primary health care. *Fam Pract.* 2021;38:606–611.
20. Zhang J, Yang L, Wang X, Dai J, Shan W, Wang J. Inpatient satisfaction with nursing care in a backward region: a cross-sectional study from north-western China. *BMJ Open.* 2020;10:e034196.
21. Jaensson M, Dahlberg K, Nilsson U. Factors influencing day surgery patients' quality of postoperative recovery and satisfaction with recovery: a narrative review. *Perioper Med (Lond).* 2019;8:3.
22. Canales C, Strom S, Anderson CT, et al. Humanistic medicine in anaesthesiology: development and assessment of a curriculum in humanism for post-graduate anaesthesiology trainees. *Br J Anaesth.* 2019;123:887–897.
23. Kirby R, Knowles HC, Patel A, et al. The influence of patient perception of physician empathy on patient satisfaction among attending physicians working with residents in an emergent care setting. *Health Sci Rep.* 2021;4:e337.