AL GIZZAI Public Health Nutrition
p-ISSN: 2775-0426
e-ISSN: 2775-0434
Research Articles Open Acces

Integrating Patient Perspectives and Process Observation to Evaluate Inpatient Food Service Quality: Evidence from an Indonesian Regional Hospital

Nurfaidah[1*], Novia Chaerunnisa [2], Nur Alam[3], Abdul Malik Asikin[4]
[1,2,3,4]Department of Nutrition, Faculty of Sports and Health Sciences, Universitas Negeri Makassar, Makassar, Indonesia

***Corresponding Author:** nur.faidah@unm.ac.id

ARTICLE INFO
Manuscript Received: 13 June 2026
Revised: 14 July 2026
Accepted: 24 July 2026
Date of Publication: 27 July 2026
Volume: 6
Issue: 2
DOI: 10.24252/algizzai.v6i2.69230

KEYWORDS
food service quality;
hospital nutrition services;
inpatient;
patient satisfaction;
meal distribution.

ABSTRACT
Introduction: Food service quality is an essential component of hospital nutrition services because it influences patients' food acceptance, nutritional intake, and satisfaction during hospitalization. Previous evaluations have primarily relied on patient satisfaction surveys, whereas studies integrating patient perceptions with direct observations of the food distribution process remain limited, particularly in regional public hospitals. This study aimed to describe inpatient food service quality at Syekh Yusuf Regional General Hospital, Gowa Regency, Indonesia, based on patients' perceptions and observations of the meal distribution process.
Methods: A descriptive observational study with a cross-sectional design was conducted among 41 inpatients receiving regular diets. Participants were selected using purposive sampling. Data were collected using a patient satisfaction questionnaire and a structured observation checklist based on the Indonesian Hospital Nutrition Service Guidelines (PGRS). The evaluated dimensions included food taste, meal temperature, food texture, menu variety, cleanliness of eating utensils, staff attitude, timeliness of meal distribution, and overall patient satisfaction. Data were analyzed descriptively using frequencies and percentages.
Results: All observed food distribution indicators complied with the hospital's operational standards (8/8 indicators). Patients generally reported positive evaluations across the assessed food service dimensions. Food texture received the highest positive evaluation (97.6%), followed by food taste (68.3%), staff attitude (68.3%), and timeliness of meal distribution (68.3%). Meal temperature (56.1%) and menu variety (53.7%) received comparatively lower ratings. Overall, 61.0% of respondents were very satisfied and 39.0% were satisfied with the hospital food service.
Conclusion: Integrating patient perceptions with direct observations provides a comprehensive description of inpatient food service quality. Meal temperature and menu variety may represent priorities for continuous quality improvement, while maintaining the favorable performance observed for utensil cleanliness, staff professionalism, and timely meal distribution.

Publisher: *Department of Public Health*, Universitas Islam Negeri Alauddin Makassar

INTRODUCTION

Food service is an essential component of hospital nutrition services, as it plays a pivotal role in meeting patients' nutritional requirements, supporting recovery, and improving the overall quality of healthcare delivery (Kementerian Kesehatan, 2013). The quality of hospital food service extends beyond nutritional adequacy and encompasses multiple dimensions, including food taste, serving temperature, texture, menu variety, timeliness of meal distribution, cleanliness of eating utensils, and the quality of staff service. Collectively, these factors influence patients' food acceptance, reduce plate waste, improve nutritional status, and enhance patient satisfaction during hospitalization. Consequently, food service quality has become a key performance indicator for evaluating hospital nutrition services (Trinca, V., Duizer, L., & Keller, H, 2022).

A growing body of evidence demonstrates that high-quality food service is closely associated with patient satisfaction and the effectiveness of hospital nutrition care. Patients consistently report higher satisfaction when meals are palatable, served at appropriate temperatures, offer sufficient menu variety, and are delivered by responsive and courteous staff (Firdaus, D., Fithri, I., Safitri, L., & Andika, H. R, 2025). Beyond improving patient satisfaction, high-quality food service contributes to increased dietary intake and may reduce the risk of hospital-acquired malnutrition. Recent studies have identified food quality as one of the strongest predictors of patient satisfaction (Hadjimbei, 2025), while Barros (2025) further reported that food quality, menu variety, meal temperature, and staff empathy are the principal determinants of patients' experiences and satisfaction with hospital food services (Barros, 2025). These findings underscore the importance of systematically evaluating food service quality as part of continuous quality improvement initiatives in hospital care.

Although previous studies have consistently demonstrated that hospital food service quality influences patient satisfaction and nutritional care, several important methodological limitations remain. Most existing studies have predominantly focused on measuring patient satisfaction through questionnaire-based surveys or evaluating isolated aspects of food service, such as taste, serving temperature, or plate waste (Ginting, W. M., Widyaningsih, F., & Panjaitan, D. H, 2024). Such approaches provide only a partial assessment of service quality because they rarely integrate patients' perceptions with observations of the actual food distribution process, which constitutes a critical component of hospital food service systems (Alie, N. S., Syamsu, R. F., 2023; Nadhifah, S. S. N., & Rahma, A, 2024). Furthermore, many currently available assessment instruments emphasize patient satisfaction rather than comprehensively evaluating service delivery processes. Rapo et al. (2021) emphasized that evaluating hospital food service quality should extend beyond overall satisfaction by incorporating multiple dimensions of patients' dining experiences, thereby providing a more comprehensive understanding of food service performance and identifying specific areas requiring quality improvement (Rapo et all., 2021). Moreover, discrepancies may exist between operational compliance with food service standards and patients' perceptions of service quality, yet this issue has received limited attention in previous studies. Therefore, a more comprehensive evaluation integrating process-based observations with patient-reported experiences is needed to provide a more balanced assessment of hospital food service quality and identify practical priorities for continuous quality improvement.

This study was conceptually informed by Donabedian's Structure–Process–Outcome (SPO) framework, which proposes that healthcare quality should be evaluated through complementary dimensions, including service processes and patient-reported outcomes. In hospital nutrition services, patients' perceptions represent outcome-oriented indicators reflecting their experiences with food service, whereas direct observation of meal distribution reflects process-oriented indicators assessing

compliance with operational standards. Integrating these complementary perspectives provides a more comprehensive understanding of hospital food service quality than relying solely on patient satisfaction surveys.

Building upon these methodological gaps, the present study provides context-specific evidence regarding inpatient food service quality in an Indonesian regional public hospital by integrating patient-reported evaluations with direct observations of the meal distribution process. Rather than proposing a new assessment method, this study offers a comprehensive evaluation of multiple dimensions of food service quality, including food taste, serving temperature, food texture, menu variety, cleanliness of eating utensils, attitudes of food distribution staff, timeliness of meal delivery, and compliance with operational food distribution procedures. This integrated approach enables comparison between patients' experiences and observed service implementation, thereby providing practical evidence to support managerial evaluation in hospital nutrition departments and evidence-based quality improvement strategies. Syekh Yusuf Regional General Hospital is a government referral hospital that provides nutrition services for inpatients with diverse clinical conditions and dietary requirements. Evaluating the quality of food service in this setting is essential to determine the extent to which the services provided meet patients' expectations and comply with established hospital nutrition service standards.

Accordingly, this study aimed to describe patients' perceptions of inpatient food service quality and to document compliance with selected food distribution standards through direct observation at Syekh Yusuf Regional General Hospital, Gowa Regency, Indonesia. The findings are expected to provide context-specific evidence that supports local quality improvement initiatives while contributing to the limited body of literature on hospital food service evaluation in Indonesian regional public hospitals.

METHODS

Study Design

This study employed a descriptive observational design with a cross-sectional approach to evaluate the quality of inpatient food services based on patients' perceptions and direct observation of the meal distribution process at a single point in time. The study was conducted in 2026 at the Nutrition Department of Syekh Yusuf Regional General Hospital, Gowa Regency, South Sulawesi Province, Indonesia. A descriptive cross-sectional design was considered appropriate because the primary objective of the study was to describe patients' perceptions of hospital food services and document compliance with food distribution procedures without examining causal relationships between variables.

Participants and Sampling

This study involved 41 hospitalized adult patients receiving regular diets at Syekh Yusuf Regional General Hospital, Gowa Regency, Indonesia. Participants were recruited using purposive sampling because only patients who met the predefined eligibility criteria were considered capable of providing valid evaluations of hospital food service quality. Eligible participants were adult inpatients receiving regular hospital diets, were clinically stable, able to communicate effectively, and willing to participate by providing written informed consent.

Because this study was designed as a descriptive evaluation rather than an analytical investigation, all eligible patients who met the inclusion criteria during the study period were recruited, resulting in a final sample of 41 participants. This sampling approach was considered appropriate for obtaining detailed descriptions of patients' perceptions regarding inpatient food service quality within the study setting.

Data Collection Procedures

Data collection consisted of interviewer-administered questionnaires and structured observations of the hospital meal distribution process. Eligible participants received an explanation of the study objectives and procedures before providing written informed consent. Face-to-face interviews were subsequently conducted by trained members of the research team to ensure respondents clearly understood each questionnaire item and to minimize missing responses.

Direct observations were conducted during routine inpatient meal distribution activities organized by the Nutrition Department. The observation process covered the implementation of food distribution procedures from meal preparation until food delivery to patients. Observations were performed using a structured checklist developed according to the Indonesian Hospital Nutrition Service Guidelines (Pedoman Gizi Rumah Sakit/PGRS). Each operational indicator was assessed as either compliant or non-compliant based on predefined criteria. To improve consistency, all observations were conducted using the same observation checklist by trained researchers following identical observation procedures throughout the study period.

Because this study was designed as a descriptive evaluation of hospital food service quality, the observations represented food distribution practices observed during the study period only and were not intended to evaluate long-term routine performance across all meal distribution sessions. Participant confidentiality was maintained throughout data collection, data management, and reporting.

Variables

The study evaluated several dimensions of inpatient food service quality, including food taste, meal temperature, food texture, menu variety, cleanliness of eating utensils, attitudes of food distribution staff, timeliness of meal distribution, compliance with meal distribution procedures, and overall patient satisfaction. Patient-reported perceptions were obtained through structured interviews, whereas compliance with operational food distribution procedures was assessed through direct observation using the observation checklist.

Instrument Development and Validation

The patient questionnaire and structured observation checklist were developed based on the Indonesian Hospital Nutrition Service Guidelines (PGRS) and previous literature regarding hospital food service quality evaluation. The questionnaire was designed to assess patients' perceptions of food taste, meal temperature, food texture, menu variety, cleanliness of eating utensils, staff attitude, timeliness of meal distribution, and overall satisfaction.

Content validity was assessed through expert review involving professionals with expertise in hospital nutrition services and public health nutrition. The experts evaluated the relevance, clarity, and comprehensiveness of each item, and revisions were made according to their recommendations before data collection. However, because the instrument was intended for descriptive service evaluation, formal psychometric testing, including construct validity and reliability analysis, was not performed. Therefore, the findings should be interpreted within the context of descriptive assessment.

Statistical Analysis

Data were analyzed descriptively using frequency distributions and percentages. The findings are presented in tables and narrative form to describe respondents' characteristics, patient evaluations of food service quality, observed compliance with meal distribution standards, and overall patient satisfaction. Because the objective of the study was to provide a descriptive evaluation of inpatient food services rather than identify determinants or predictors of patient satisfaction, inferential statistical analyses were not performed. Accordingly, the findings should be interpreted as descriptive evidence and should not

be used to infer causal relationships among the evaluated variables.

Ethical Considerations

Participation in this study was entirely voluntary. Before enrollment, all respondents received detailed information regarding the objectives and procedures of the study and provided written informed consent. Participant confidentiality and anonymity were maintained throughout data collection, analysis, and reporting, and all information was used exclusively for research purposes. The study was conducted in accordance with the ethical principles governing research involving human participants.

RESULTS

A total of 41 hospitalized patients participated in this study. The demographic and clinical characteristics of the respondents are presented in Table 1. Most respondents were female (58.5%), aged 46–65 years (39.0%), had completed senior high school education (43.9%), had been hospitalized for 4–7 days (48.8%), and were admitted to Class III wards (53.6%). These findings describe the characteristics of the study participants included in the evaluation of inpatient food service quality.

Table 1. Characteristics of hospitalized patients at Syekh Yusuf Regional General Hospital, Gowa Regency

Characteristic	n (41)	%
Sex		
Male	17	41.5
Female	24	58.5
Age group (years)		
17–25	6	14.6
26–45	12	29.3
46–65	16	39.0
>65	7	17.1
Educational level		
Primary school	8	19.5
Junior high school	9	22.0
Senior high school	18	43.9
Higher education	6	14.6
Length of hospital stay		
≤3 days	15	36.6
4–7 days	20	48.8
>7 days	6	14.6
Ward class		
Class I	7	17.1
Class II	12	29.3
Class III	22	53.6

Observation of the Meal Distribution Process

Direct observation was conducted to evaluate the implementation of operational food distribution procedures within the Nutrition Department (Table 2). The observations focused on compliance with selected operational indicators, including diet accuracy, timeliness of meal delivery, cleanliness of eating

utensils and food distribution equipment, use of personal protective equipment by food service staff, patient identification procedures, meal temperature during distribution, and documentation practices.

During the observation period, all assessed indicators complied with the hospital's operational standards, resulting in full compliance across the eight evaluated indicators. No deviations from the established procedures were identified during the observed meal distribution activities. These findings indicate that the operational aspects evaluated in this study were implemented consistently throughout the observation period; however, they should not be interpreted as representing routine performance beyond the observed sessions.

Table 2. Observation of the meal distribution process

Observation Indicator	**Score**	**Compliance**
Accuracy of prescribed diet	1	Compliant
Timeliness of meal distribution	1	Compliant
Cleanliness of eating utensils	1	Compliant
Cleanliness of food distribution trolley	1	Compliant
Use of personal protective equipment by staff	1	Compliant
Accuracy of patient identification	1	Compliant
Meal temperature during distribution	1	Compliant
Documentation of meal distribution	1	Compliant
Total score	8	Compliant

Patients evaluated multiple dimensions of inpatient food service quality, including food taste, meal temperature, food texture, menu variety, cleanliness of eating utensils, staff attitude, and timeliness of meal distribution. The distribution of patients' responses for each quality indicator is summarized in Table 3.

Table 3. Summary of patient evaluation of food service quality

Indicator	**Category**	**n (41)**	**%**
Food taste	Good	28	68.3
	Fair	13	31.7
Meal temperature	Warm	23	56.1
	Cold	18	43.9
Food texture	Soft	40	97.6
	Less appropriate	1	2.4
Menu variety	Varied	22	53.7
	Less varied	19	46.3
Cleanliness	Clean	26	63.4
	Very clean	15	36.6
Staff attitude	Friendly	28	68.3
	Very friendly	13	31.7
Timeliness	On time	28	68.3
	Very punctual	13	31.7

Overall, respondents provided favorable evaluations across all assessed dimensions of food service quality. Food texture received the highest positive evaluation, with 97.6% of respondents reporting that the meals had an appropriate texture. Positive evaluations were also observed for food taste (68.3%), staff attitude (68.3%), and timeliness of meal distribution (68.3%). Meal temperature (56.1%) and menu variety (53.7%) received comparatively lower positive ratings than the other evaluated dimensions. The cleanliness of eating utensils was positively evaluated by 63.4% of respondents.

Table 4. Overall patient satisfaction with hospital food services

Satisfaction Level	n	%
Very satisfied	25	61.0
Satisfied	16	39.0
Total	41	100.0

Overall patient satisfaction was assessed to summarize respondents' general evaluation of the hospital food services received during hospitalization. The results are presented in Table 4. Among the 41 respondents, 25 (61.0%) reported being very satisfied with the hospital food services, whereas 16 respondents (39.0%) reported being satisfied. No respondents reported being dissatisfied or very dissatisfied with the food services provided

DISCUSSION

This study provides a descriptive evaluation of inpatient food service quality by integrating patients' perceptions with direct observations of the meal distribution process. Overall, patients reported favorable evaluations across most food service dimensions, while all observed operational indicators complied with the hospital's standards during the study period. However, comparatively lower ratings for meal temperature and menu variety indicate that operational compliance alone does not necessarily ensure optimal patient experiences. These findings highlight the importance of combining objective process evaluations with patient-reported experiences to obtain a more comprehensive assessment of hospital food service quality. This integrated approach extends previous hospital food service evaluations by demonstrating that operational performance and patient perceptions should be interpreted together to identify service strengths and priorities for quality improvement. Consistent with Donabedian's Structure–Process–Outcome framework, healthcare quality is better understood through complementary evaluation of service processes and patient-reported outcomes (Al-As, N., Ibrahim, N. S. I., & Boli, 2022; Osman, N. S et all, 2021).

Food taste received positive evaluations from approximately two-thirds of respondents, indicating that the hospital generally succeeded in providing meals that were acceptable despite the therapeutic dietary modifications required in hospital nutrition services. Nevertheless, the finding that almost one-third of respondents expressed less favorable opinions suggests that sensory acceptability remains an important aspect requiring continuous monitoring. This variation may reflect differences in patients' clinical conditions, medication use, appetite, dietary restrictions, and individual food preferences, all of which can influence meal acceptance. Therefore, improving patients' dining experiences requires not only appropriate food preparation but also routine evaluation of patient feedback to identify opportunities for enhancing meal acceptability while maintaining nutritional adequacy. These findings are consistent with previous studies showing that food palatability contributes substantially to patient satisfaction, dietary intake, and the effectiveness of hospital nutrition care (F Setiawan et all, 2024; Hadjimbei et all, 2025).

Meal temperature received comparatively lower evaluations despite complete compliance with operational food distribution procedures. This discrepancy suggests that procedural compliance does not necessarily translate into optimal patient experiences because meal temperature may be affected by conditions occurring after food preparation, including transportation time, delays before consumption, and limitations of temperature-retention systems. In regional public hospitals, maintaining meal temperature may also be challenging because of centralized distribution systems, infrastructure limitations, and resource constraints. These findings indicate that quality assurance should extend beyond food preparation to include continuous monitoring throughout the food distribution process until meals reach patients. Similar observations have been reported in previous studies demonstrating that inadequate temperature maintenance and prolonged distribution time reduce patient satisfaction with hospital meals (Potsi, F., & Syngelakis, 2025; Damayanti, F et al, 2024; Rinninella, E et all, 2023). Therefore, strengthening temperature control during meal distribution should become a priority for continuous service improvement.

Food texture received the highest positive evaluation among all assessed dimensions, indicating that the hospital successfully maintained an important component of therapeutic nutrition services. Appropriate food texture is particularly important because many hospitalized patients require texture-modified diets due to impaired chewing ability, swallowing difficulties, or disease-related conditions. Although this study did not evaluate dietary intake or nutritional outcomes directly, the consistently favorable ratings suggest that current texture-modification practices adequately met patients' needs during the study period. Maintaining appropriate food texture should therefore remain a key quality indicator because it supports both patient safety and meal acceptance during hospitalization (Marzuki, S. N. B., 2025; Rinninella, E et all, 2023; Lara N et al, 2026).

Menu variety received comparatively lower evaluations than most other food service dimensions, suggesting that this aspect represents an important opportunity for service improvement. Repeated menu cycles may contribute to menu fatigue, particularly among patients with longer hospital stays. Although hospitals must balance therapeutic dietary requirements, operational feasibility, and financial resources, insufficient menu variation may gradually reduce patients' appetite and food intake, thereby affecting the effectiveness of nutritional therapy. Consequently, periodic review of menu cycles and systematic incorporation of patient feedback may improve meal acceptance while maintaining nutritional standards. These findings are consistent with previous studies reporting that greater menu diversity enhances food acceptance and patient satisfaction during hospitalization (da Cunha, D. T., 2022; Trinca, V., Duizer, L., & Keller, H, 2022).

The cleanliness of eating utensils, staff attitude, and timeliness of meal distribution were also evaluated positively by respondents, indicating that patients generally perceived the operational and interpersonal aspects of food service favorably. These service dimensions contribute directly to patients' confidence in food safety and reinforce positive perceptions of healthcare quality beyond the nutritional aspects of meal provision. Maintaining these favorable outcomes requires continuous supervision, staff training, and consistent implementation of standard operating procedures. Nevertheless, patient evaluations should be interpreted cautiously because they may also be influenced by previous healthcare experiences, cultural expectations, and individual service expectations (Potsi, F., & Syngelakis, 2025). Maintaining these service dimensions is essential because they strengthen patients' trust in hospital food services and support overall quality of care.

Overall patient satisfaction was uniformly positive, with all respondents reporting either being satisfied or very satisfied with the hospital food services. However, this finding should not be interpreted as indicating that all aspects of food service have reached optimal quality. Instead, the coexistence of high overall satisfaction with comparatively lower evaluations of meal temperature and menu variety

demonstrates that global satisfaction measures may mask specific service components requiring improvement. These findings demonstrate the value of multidimensional quality assessment in hospital nutrition services and support the integration of patient-reported experiences with operational observations. This interpretation is consistent with Donabedian's Structure–Process–Outcome framework, which emphasizes that healthcare quality should be evaluated through complementary assessment of service processes and patient outcomes (Al-As et al., 2022; Osman, N. S et al., 2021; Keller et al., 2022; Piciocchi, C et al, 2022).

From a managerial perspective, future quality improvement initiatives should prioritize meal temperature control and menu variety while maintaining the favorable performance observed for food texture, cleanliness of eating utensils, staff professionalism, and timely meal distribution. Continuous monitoring of operational performance should be integrated with regular patient satisfaction assessments to identify service gaps that may not be detected through routine compliance audits alone. Routine monitoring of meal temperature throughout the distribution process, periodic review of menu cycles, continuous staff education, and regular service audits should therefore become integral components of hospital nutrition service management. The integrated evaluation framework applied in this study may also serve as a practical quality assurance model for other regional hospitals seeking to strengthen patient-centered nutrition services through evidence-informed quality improvement strategies.

Several limitations should be considered when interpreting these findings. The descriptive cross-sectional design and single-center setting with a relatively small sample limit causal inference and the generalizability of the results to other healthcare settings. In addition, observations were conducted over a limited period and may not fully represent routine food service performance. Although the instruments underwent expert-based content validation, formal psychometric testing was not performed, and patient evaluations relied on self-reported perceptions that may have been influenced by individual expectations and experiences. Furthermore, this study did not assess other factors potentially affecting food service quality, such as dietary intake, plate waste, nutritional status, disease severity, or operational efficiency. Therefore, future research should employ multicenter longitudinal or analytical designs with larger and more diverse populations, repeated observations, psychometrically validated instruments, and objective nutritional and operational indicators to provide more robust evidence for improving hospital food service quality.

CONCLUSION

This study provides a comprehensive descriptive evaluation of inpatient food service quality at Syekh Yusuf Regional General Hospital by integrating patients' perceptions with direct observations of the meal distribution process. Overall, patients reported favorable evaluations across the assessed food service dimensions, while all observed operational indicators complied with the hospital's food distribution standards during the study period. Nevertheless, meal temperature and menu variety received comparatively lower evaluations, indicating that operational compliance alone may not fully ensure optimal patient experiences.

The findings demonstrate that integrating patient-reported experiences with process-based observations offers a more comprehensive assessment of hospital food service quality than relying solely on patient satisfaction measures or operational audits. This integrated approach enables hospital nutrition departments to identify specific service strengths and priority areas for improvement while supporting evidence-informed quality assurance and patient-centered nutrition services. From a practical perspective, hospital nutrition departments should prioritize strengthening meal temperature control throughout the distribution process and periodically reviewing menu variety while maintaining the favorable performance observed for food texture, cleanliness of eating utensils, staff professionalism,

and timely meal distribution.

Because this study employed a descriptive cross-sectional design in a single regional public hospital, the findings should be interpreted within the context of the study setting and should not be generalized to all healthcare institutions. Future multicenter studies involving larger and more diverse patient populations, repeated observations, psychometrically validated instruments, and objective indicators of nutritional and operational performance are recommended to strengthen the evidence base for improving hospital food service quality.

ACKNOWLEDGEMENTS

The authors sincerely thank the Director of Syekh Yusuf Regional General Hospital and the staff of the Nutrition Department for granting permission and providing invaluable assistance and support throughout the study. The authors also express their gratitude to all patients who voluntarily participated in this research, as well as to everyone who contributed to the successful completion of the study. This research was conducted as an independent academic study and did not receive financial support from research grants or any external funding sources.

CONFLICT OF INTEREST

The authors declare no competing interests.

FUNDING

No external funding was received for this study.

ARTIFICIAL INTELLIGENCE STATEMENT

Artificial intelligence (ChatGPT, OpenAI) was used solely to improve the English language, grammar, and readability of the manuscript. The authors are fully responsible for all scientific content and approved the final version of the manuscript.

REFERENCES

Al-faida, N., Ibrahim, N. S. I., & Boli, E. B. (2022). Analisis sistem penyelenggaraan makanan di instalasi gizi berdasarkan standar Pedoman Gizi Rumah Sakit (PGRS). Jurnal 'Aisyiyah Medika, 7(1), 43–56. https://doi.org/10.36729/jam.v7i1.773.

Alie, N. S., Syamsu, R. F., & Dahlia. (2023). Gambaran kepuasan pasien terhadap layanan dan kualitas makanan di rumah sakit: Literature review. PREPOTIF: Jurnal Kesehatan Masyarakat, 7(3), 16428–16438. https://doi.org/10.31004/prepotif.v7i3.20246.

Barros, T. S., McCleary, K. J., Beeson, W. L., Heskey, C. E., & Bains, G. S. (2025). Assessing patient satisfaction in hospital food service with SERVQUAL: A cross-sectional study. Journal of Hospital Administration, 14(2), 9-15. https://doi.org/10.63564/jha.v14n2p9

da Cunha, D. T., et al. (2022). Food safety and hygiene practices in healthcare food services: A systematic review. Food Control, 133.

Damayanti, F., Ronitawati, P., Swamilaksita, P. D., Siahaan, M. F., & Fadhilla, R. (2024). Analysis of determinant factors on patient satisfaction based on patient characteristics, food quality and service quality. Media Penelitian dan Pengembangan Kesehatan, 35(4). https://doi.org/10.34011/jmp2k.v35i4.3013

Firdaus, D., Fithri, I., Safitri, L., & Andika, H. R. (2025). Hubungan kualitas penyelenggaraan makanan

dengan kepuasan pasien di pelayanan gizi Rumah Sakit Muhammadiyah Kalitidu. Jurnal Manajemen Kesehatan Indonesia, 13(1), 52–62. https://doi.org/10.14710/jmki.13.1.2025.52-62

Ginting, W. M., Widyaningsih, F., & Panjaitan, D. H. (2024). Patient satisfaction with meal service with leftovers at Grandmed Hospital Lubuk Pakam. Jurnal Kesmas dan Gizi, 7(1). https://doi.org/10.35451/jkg.v7i1.2270

Hadjimbei, E., Chrysostomou, S., Heraclides, A., Kouvari, K., & Tzanetakou, I. P. (2025). Evaluation of patients' satisfaction with food services and assessment of plate waste in Cypriot hospitals. Journal of Nutritional Science, 14, e57. https://doi.org/10.1017/jns.2025.10030

Kementerian Kesehatan. (2013). Pedoman Gizi Rumah Sakit (PGRS). Kementerian Kesehatan Republik Indonesia.

Nuñez-Lara, A., Viñas, P., Cera, M., Santiago, M., Minguella, L., Llovet, A., & Clavé, P. (2026). Effect of a Large-Scale Production and Quality-Controlled Program for Texture-Modified Diets on Older Hospitalized Patients with Oropharyngeal Dysphagia. Nutrients, 18(4), 601. https://doi.org/10.3390/nu18040601

Nadhifah, S. S. N., & Rahma, A. (2024). Analisis ketepatan waktu distribusi makanan dan kesesuaian diet pasien rawat inap dalam evaluasi mutu pelayanan gizi Rumah Sakit X. Antigen: Jurnal Kesehatan Masyarakat dan Ilmu Gizi, 3(4). https://doi.org/10.57213/antigen.v3i4.924

Osman, N. S., Md Nor, N., Md Sharif, M. S., Hamid, S. B. A., & Rahamat, S. (2021). Hospital food service strategies to improve food intakes among inpatients: a systematic review. Nutrients, 13(10), 3649. https://doi.org/10.3390/nu13103649

Potsi, F., & Syngelakis, A. (2025). Evaluation of patient satisfaction with hospital foodservice during treatment at a general hospital in mainland Greece. Journal of Human Nutrition and Dietetics, 38(1), e70026. https://doi.org/10.1111/jhn.70026

Piciocchi, C., Lobefaro, S., Luisi, F., Miraglia, L., Romito, N., Luneia, R., ... & Donini, L. M. (2022). Innovative cooking techniques in a hospital food service: Effects on the quality of hospital meals. Nutrition, 93, 111487. https://doi.org/10.1016/j.nut.2021.111487

Rapo, S., Mattson Sydner, Y., Kautto, E., & Hörnell, A. (2021). Exploring patient satisfaction with hospital foodservice: A Swedish study using the Acute Care Hospital Foodservice Patient Satisfaction Questionnaire. Nutrition & Dietetics, 78(5), 487–495. https://doi.org/10.1111/1747-0080.12665

Rinninella, E., Raoul, P., Maccauro, V., Cintoni, M., Cambieri, A., Fiore, A., Zega, M., Gasbarrini, A., & Mele, M. C. (2023). Hospital Services to Improve Nutritional Intake and Reduce Food Waste: A Systematic Review. Nutrients, 15(2), 310. https://doi.org/10.3390/nu15020310

Setiawan, F., Antonio, F., Marsaulina, R. P., Hadinata, V., Utomo, A. L., Alexandra, C., ... & Catharina, C. (2024). Navigating hospital foodservice satisfaction: Insights from importance-performance map analysis. AcTion: Aceh Nutrition Journal, 9(2), 270-279. https://ejournal.poltekkesaceh.ac.id/index.php/an/article/view/1572

Trinca, V., Duizer, L., & Keller, H. (2022). Putting quality food on the tray: Factors associated with patients' perceptions of the hospital food experience. Journal of Human Nutrition and Dietetics, 35(1), 81-93. https://doi.org/10.1111/jhn.12929.