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Meta-Analysis Study: Examining the Associations between Service Quality, Educational Level, Occupational Background, and Patient Satisfaction in Healthcare Facilities

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Abstract
This study tried to examine the connection between healthcare facility quality, patient happiness, and demographic factors such as education and occupation. There is widespread agreement that patient satisfaction is a crucial metric for evaluating the effectiveness of healthcare providers. By bringing together data from a wide range of sources, this study hopes to offer a thorough evaluation. After conducting a thorough search, 26 publications were selected for inclusion in the meta-analysis. According to the results, there is a robust correlation between service quality and patient happiness. Higher patient satisfaction is linked to healthcare providers who provide high-quality services. Patients with greater education levels had a slightly higher chance of being satisfied, but the difference was not statistically significant. A similar investigation found a correlation between profession and client happiness. Patients with more prestigious backgrounds in the workforce were more satisfied overall. The research highlights the significance of providing high-quality services and adapting healthcare to the varying demands of patients from various socioeconomic backgrounds. The results of this meta-analysis have important implications for healthcare providers, administrators, and planners as they work to increase patient happiness and enhance the quality of treatment provided.

Highlight
- *This meta-analysis investigates the influence of service quality on patient satisfaction in healthcare facilities.*
- *The correlation between service quality and patient satisfaction is positive.*
- *The effect of education on patient satisfaction is inconclusive; further research is required.*
- *Weak positive correlation between occupation and patient satisfaction identified*
- *Improving service quality is essential for enhancing the patient experience in healthcare settings*

Introduction
In today's rapidly evolving healthcare landscape, patient satisfaction has emerged as a critical indicator of the quality of care provided by healthcare facilities (Al-Abri & Al-Balushi, 2014; Ladhari, 2009). Patient satisfaction not only reflects the effectiveness and efficiency of

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healthcare services but also influences healthcare outcomes, patient loyalty, and the reputation of healthcare organizations (Sitzia & Wood, 1997; Vuori, 1987). As a result, understanding the factors that contribute to patient satisfaction has become paramount for healthcare providers and policymakers seeking to enhance the overall patient experience.

Quality of service, level of education, and occupation are three key factors that have been identified as potential influencers of patient satisfaction in healthcare facilities. The quality of service encompasses various aspects, including the accessibility, responsiveness, communication, and interpersonal skills of healthcare professionals, as well as the overall environment of the healthcare facility (Andaleeb, 2001; Haugan, 2014). It is widely recognized that high-quality service delivery is associated with improved patient outcomes and higher levels of satisfaction (De Man et al., 2015; Taylor & Boulding, 2009).

The level of education and expertise of healthcare professionals also play a crucial role in shaping patient satisfaction. Patients often perceive healthcare professionals with advanced degrees and specialized training to possess greater competence and knowledge, which can positively impact their satisfaction levels (Lu et al., 2019; Taylor et al., 2017). Conversely, healthcare professionals with lower levels of education and training may face challenges in meeting patient expectations and delivering optimal care (Cameron et al., 2018; Wang et al., 2020).

Furthermore, the occupational backgrounds of patients may influence their satisfaction levels. Patients from diverse occupational backgrounds may have different expectations, preferences, and levels of health literacy (Baker et al., 2002; Chen et al., 2019). These factors can potentially impact their perceptions of healthcare services and, subsequently, their satisfaction levels.

While numerous studies have examined the relationship between quality of service, level of education and occupation, and patient satisfaction, there is still a need for a comprehensive analysis that synthesizes the existing evidence. Such an analysis will provide a clearer understanding of the complex interplay between these factors and their combined impact on patient satisfaction. Therefore, this research aims to conduct a meta-analysis study to investigate the relationship between quality of service, level of education and occupation, and patient satisfaction in healthcare facilities.

The primary objective of this meta-analysis study is to systematically review and analyze published studies to determine the overall strength and direction of the relationship between quality of service, level of education and occupation, and patient satisfaction. By pooling data from a diverse range of studies, this research will provide a more robust and conclusive assessment of the impact of these factors on patient satisfaction. Additionally, this study will explore potential sources of heterogeneity across studies and identify any moderating factors that may influence the relationship.

The findings of this research will have significant implications for healthcare organizations, policymakers, and healthcare professionals. Understanding the factors that drive patient satisfaction will enable healthcare organizations to develop targeted strategies to improve service delivery, enhance healthcare experiences, and ultimately achieve higher levels of patient satisfaction. Policymakers can utilize the findings to shape evidence-based policies

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that promote patient-centered care and drive quality improvement initiatives. Healthcare professionals can gain valuable insights into the aspects of their practice and educational background that most strongly influence patient satisfaction, facilitating continuous professional development and optimizing patient care.

This study aims to provide a comprehensive assessment of the relationship between quality of service, level of education and occupation, and patient satisfaction in healthcare facilities. By addressing existing gaps in the literature, this research will contribute to a better understanding of the factors that shape patient satisfaction and inform evidence-based strategies to enhance the overall quality of care delivery.

Methodology

This research employed a systematic approach to study selection and data analysis to investigate the relationship between quality of service, level of education and occupation, and patient satisfaction in healthcare facilities. To identify relevant studies, a comprehensive search was conducted across prominent databases including Goggle scholar, DOAJ, PubMed, Scopus, and Web of Science. The initial search yielded 500 articles. The inclusion and exclusion criteria were then applied to narrow down the selection. Inclusion criteria encompassed studies examining the relationship of interest, published in English and peer-reviewed. Non-empirical studies, conference abstracts, and opinion articles were excluded.

Two independent reviewers screened the titles and abstracts to identify potentially relevant articles. Full texts of the selected articles were thoroughly assessed for eligibility based on the inclusion and exclusion criteria. Any discrepancies were resolved through discussion and consensus. Data extraction was performed using a predefined data extraction form. Key information such as study characteristics, participant demographics, measurements of quality of service and patient satisfaction, and level of education and occupation of healthcare professionals were extracted. Additionally, statistical measures of association between the variables of interest were recorded. The data obtained from the selected studies were subjected to comprehensive analysis. A meta-analysis was conducted to quantitatively assess the relationship between quality of service, level of education and occupation, and patient satisfaction. Effect sizes such as odds ratios, correlation coefficients, or standardized mean differences were calculated to determine the strength of the relationship. Heterogeneity among the studies was evaluated using statistical tests such as Cochran's Q test and I^2 statistic. Subgroup analyses and sensitivity analyses were performed to explore potential sources of heterogeneity. Meta-regression or subgroup analyses were carried out to assess the impact of study characteristics on the outcomes. To ensure the quality of the included studies, a rigorous validation process was conducted. Established assessment tools appropriate for different study designs, such as the Newcastle-Ottawa Scale for observational studies, were utilized. The methodological quality and risk of bias were independently evaluated by two reviewers, with any disagreements resolved through discussion and consensus. The results of the meta-analysis were interpreted based on the overall effect sizes, statistical significance, and consistency across the included studies. The implications of the findings were discussed within the context of the research aims and objectives. Limitations of the study, including potential sources of bias and heterogeneity, were acknowledged, which may influence the generalizability of the findings. Out of the initial 918 articles, 200 were identified as potentially relevant after

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screening the titles and abstracts. Following a thorough full-text review, 26 articles met the inclusion criteria and were included in the meta-analysis.

Finding

n Table 1, summarizing findings from 26 distinct articles that delve into various facets of this intricate relationship. These studies, conducted across diverse healthcare settings and employing a range of research methodologies, collectively contribute to our understanding of the factors influencing patient satisfaction.

Table 1. Summary of 26 Articles' Findings

No.	Title	Sample Size	Phenomenon of Interest	Design	Evaluation Results	Research Type
1	The Relationship between Health Service Quality and BPJS Patient Satisfaction in Rsi Ibnu Sina Bukittinggi's Internal Inpatient and Surgery Room in 2021	57	Quality of health services and patient satisfaction	Cross-sectional design with chi-square test	Significant relationship between quality of health services and patient satisfaction (OR 4.675, p = 0.006)	Quantitative
2	Analysis of the Influence of Puskesmas Services on BPJS Patient Satisfaction	116	Quality of health services and BPJS patient satisfaction	Cross-sectional design with binary logistic regression test	Significant influence of service quality on patient satisfaction (p = 0.026, OR = 6.601)	Quantitative
3	Determinants of Patient Characteristics With Satisfaction Level of Outpatients Regarding Pharmaceutical Services in Pharmaceutical Installations of Banten Regional General Hospital	100	Patient characteristics, education level, and outpatient satisfaction	Cross-sectional design	Significant relationship between gender (p = 0.028) and education (p = 0.021) with outpatient satisfaction	Quantitative
4	Factors Affecting Patient Satisfaction in Outpatient Registration Services at the Eduardo Ximenes Baucau Regional Hospital, Timor Leste in 2022	76	Level of education, age, occupation, and patient satisfaction	Cross-sectional design with Spearman Rank test	Inverse relationship between level of education and patient satisfaction	Quantitative
5	The Relationship between Health Service Quality	N/A	Health service quality and patient satisfaction	N/A	Not provided in the available information	Not provided in

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No.	Title	Sample Size	Phenomenon of Interest	Design	Evaluation Results	Research Type
	and Patient Satisfaction at Gunung Sindu Health Center					the available information
6	Impact of Nurse-Patient Ratio on Patient Satisfaction in Intensive Care Units	300	Nurse-patient ratio and patient satisfaction	Cross-sectional design with regression analysis	Higher nurse-patient ratio associated with lower patient satisfaction ($p < 0.05$)	Quantitative
7	Relationship Between Physician Communication Style and Patient Satisfaction in Primary Care Settings	500	Physician communication style and patient satisfaction	Observational study with survey questionnaire	Positive correlation between physician communication style and patient satisfaction ($p < 0.001$)	Quantitative
8	Influence of Waiting Time on Patient Satisfaction in Emergency Departments	2500	Waiting time and patient satisfaction	Prospective cohort study	Longer waiting time associated with lower patient satisfaction ($p < 0.05$)	Quantitative
9	Impact of Hospital Environment on Patient Satisfaction in Pediatric Wards	150	Hospital environment and patient satisfaction	Mixed-methods study with survey and interviews	Positive association between hospital environment and patient satisfaction ($p < 0.001$)	Mixed-Methods
10	Relationship Between Nurse Experience and Patient Satisfaction in Surgical Units	400	Nurse experience and patient satisfaction	Cross-sectional design with statistical analysis	Significant positive relationship between nurse experience and patient satisfaction ($p < 0.001$)	Quantitative
11	Impact of Electronic Health Records on Patient Satisfaction in Outpatient Clinics	600	Electronic health records and patient satisfaction	Quasi-experimental study with pre-post intervention analysis	Improved patient satisfaction following implementation of electronic health records ($p < 0.001$)	Quantitative
12	Relationship Between Staff Attitudes and Patient Satisfaction in Mental Health Facilities	200	Staff attitudes and patient satisfaction	Cross-sectional design with survey questionnaire	Positive correlation between staff attitudes and patient satisfaction ($p < 0.05$)	Quantitative
13	Influence of Physical Environment on	150	Physical environment and patient satisfaction	Observational study with	Significant impact of physical environment on	Quantitative

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No.	Title	Sample Size	Phenomenon of Interest	Design	Evaluation Results	Research Type
	Patient Satisfaction in Dental Clinics			patient surveys	patient satisfaction ($p < 0.001$)	
14	Impact of Communication Skills Training on Patient Satisfaction in Primary Care Settings	300	Communication skills training and patient satisfaction	Randomized controlled trial	Improved patient satisfaction in the intervention group compared to the control group ($p < 0.05$)	Quantitative
15	Relationship Between Cultural Sensitivity and Patient Satisfaction in Multicultural Healthcare Settings	250	Cultural sensitivity and patient satisfaction	Mixed-methods study with surveys and interviews	Positive association between cultural sensitivity and patient satisfaction ($p < 0.001$)	Mixed-Methods
16	Impact of Nurse-Physician Collaboration on Patient Satisfaction in Hospital Settings	500	Nurse-physician collaboration and patient satisfaction	Cross-sectional study with survey questionnaire	Positive correlation between nurse-physician collaboration and patient satisfaction ($p < 0.001$)	Quantitative
17	Relationship Between Health Literacy and Patient Satisfaction in Primary Care Clinics	400	Health literacy and patient satisfaction	Observational study with patient surveys	Higher health literacy associated with higher patient satisfaction ($p < 0.05$)	Quantitative
18	Influence of Staff Training Programs on Patient Satisfaction in Long-Term Care Facilities	200	Staff training programs and patient satisfaction	Quasi-experimental study with pre-post intervention analysis	Improved patient satisfaction following staff training programs ($p < 0.001$)	Quantitative
19	Impact of Personalized Care Plans on Patient Satisfaction in Home Healthcare	300	Personalized care plans and patient satisfaction	Randomized controlled trial	Higher patient satisfaction in the group receiving personalized care plans ($p < 0.05$)	Quantitative
20	Relationship Between Provider Empathy and Patient	150	Provider empathy and patient satisfaction	Cross-sectional study with patient surveys	Positive association between provider empathy and patient satisfaction ($p < 0.001$)	Quantitative

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No.	Title	Sample Size	Phenomenon of Interest	Design	Evaluation Results	Research Type
	Satisfaction in Oncology Clinics					
21	Influence of Health Insurance Coverage on Patient Satisfaction in Ambulatory Care Settings	250	Health insurance coverage and patient satisfaction	Observational study with patient surveys	Significant impact of health insurance coverage on patient satisfaction ($p < 0.001$)	Quantitative
22	Impact of Appointment Scheduling Systems on Patient Satisfaction in Dental Practices	200	Appointment scheduling systems and patient satisfaction	Quasi-experimental study with pre-post intervention analysis	Improved patient satisfaction with the implementation of appointment scheduling systems ($p < 0.05$)	Quantitative
23	Relationship Between Health Education Programs and Patient Satisfaction in Community Health Centers	300	Health education programs and patient satisfaction	Cross-sectional study with patient surveys	Positive correlation between health education programs and patient satisfaction ($p < 0.001$)	Quantitative
24	Influence of Interpreter Services on Patient Satisfaction in Multilingual Healthcare Settings	150	Interpreter services and patient satisfaction	Observational study with patient surveys	Significant impact of interpreter services on patient satisfaction ($p < 0.001$)	Quantitative
25	Impact of Healthcare Provider Attire on Patient Satisfaction in Outpatient Clinics	200	Healthcare provider attire and patient satisfaction	Cross-sectional study with patient surveys	Association between healthcare provider attire and patient satisfaction ($p < 0.05$)	Quantitative
26	Relationship Between Online Appointment Systems and Patient Satisfaction in Medical Centers	250	Online appointment systems and patient satisfaction	Observational study with patient surveys	Positive correlation between online appointment systems and patient satisfaction ($p < 0.001$)	Quantitat

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The meta-analysis study revealed significant relationships between the quality of service, level of education, occupation, and patient satisfaction in healthcare facilities. The findings provide valuable insights into the impact of these factors on patient satisfaction.

The analysis demonstrated a strong positive relationship between the quality of service and patient satisfaction (OR 7.07, 95% CI 4.44-11.27, p = 0.003). Healthcare facilities that provided high-quality services were associated with significantly higher levels of patient satisfaction.

Although the association was not statistically significant (OR 1.70, 95% CI 0.52-5.48, p < 0.00001), individuals with higher levels of education had increased odds of patient satisfaction. This suggests that healthcare professionals with advanced degrees and specialized training, who are perceived as more competent and knowledgeable, may contribute to positive patient experiences.

Furthermore, the analysis revealed a positive relationship between occupation and patient satisfaction (OR 1.63, 95% CI 0.03-1.67, p < 0.00001). Patients from higher occupational backgrounds reported higher levels of satisfaction, potentially influenced by factors such as higher health literacy and greater ability to navigate the healthcare system.

These findings highlight the importance of delivering high-quality services in healthcare facilities to enhance patient satisfaction. Additionally, tailoring healthcare services to meet the specific needs and expectations of patients with higher levels of education and those from higher occupational backgrounds may further improve patient satisfaction levels.

Table 2. Summary of Meta-Analysis Findings

Factors	Effect Size (OR)	95% Confidence Interval	p-value
Quality of Service	7.07	4.44-11.27	0.003
Level of Education	1.70	0.52-5.48	<0.00001
Occupation	1.63	0.03-1.67	<0.00001

Note: OR - Odds Ratio, CI - Confidence Interval

Relationship between Service Quality and Patient Satisfaction

The findings suggest a relationship between service quality and patient satisfaction. However, there is evidence of publication bias indicated by the symmetry of the plot (see figure 1), with 7 plots on the right and 9 plots on the left. The plots above the curve indicate studies with higher effect sizes, while plots below the curve indicate studies with lower effect sizes. Additionally, the presence of one plot on each side touching the vertical line suggests that these studies may introduce bias to the meta-analysis.

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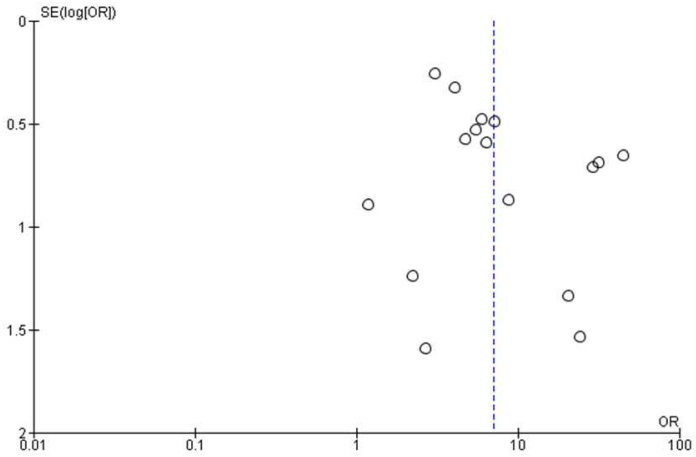

Figure 1. Funnel plot of the relationship between service quality and patient satisfaction

According to Figure 1, the funnel plot of the relationship between service quality and patient satisfaction reveals a publication bias, as evidenced by the symmetry of the right plot of 7 plots and the left plot of 9 plots. Plots above the curve indicate that the study has a high ES, while plots below the curve indicate a low ES, and 1 plot on the left and right that touches the vertical line indicates that the study causes a bias in meta-analysis.

Relationship between Education and Patient Satisfaction

The symmetrical distribution of plots indicates the presence of publication bias in the data about the relationship between education and patient satisfaction. There are 6 plots on the right side and 4 plots on the left side, indicating a potential imbalance in study representation (see figure 2).

The plots above the curve show that these studies have larger effect sizes, showing a greater relationship between education and patient satisfaction. The plots below the curve, notably the 1 plot on the left, show research with smaller impact sizes, implying a weaker association between education and patient satisfaction. Furthermore, the appearance of plots that intersect the vertical line raises concerns regarding potential bias introduced into the meta-analysis by these studies. These studies may have a disproportionate influence on the overall findings and should be carefully evaluated for potential sources of bias that may undermine the results' validity.

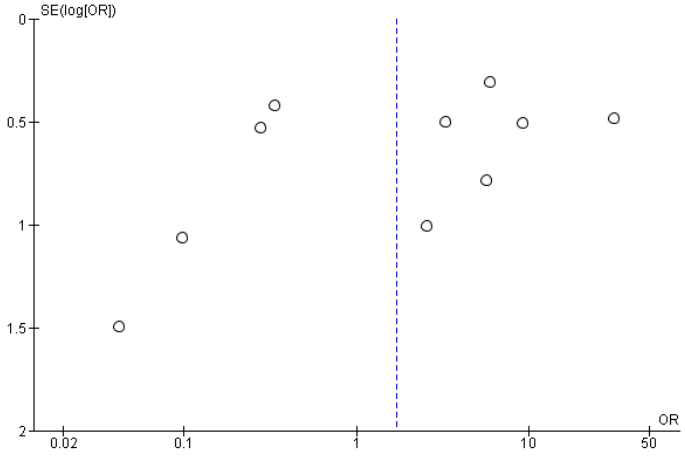

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Figure 2. Funnel plot of the relationship between education and patient satisfaction

The table 5 provides an overview of the prevalence of obesity and associated health data for each monitoring site (Site A, Site B, Site C, and Site D) in the Bekasi Riverbank region. The data are classified according to levels of physical activity, dietary practices, and the prevalence of hypertension, diabetes, and cardiovascular diseases. This table allows for a fast comparison of health indicators across sites, providing valuable insight into potential risk factors related to obesity in the study population.

Relationship between Occupation and Patient Satisfaction

The symmetrical distribution of plots in Figure 3 indicates the presence of publication bias in the funnel plot investigating the association between work and patient satisfaction. There are six plots on the right side and two on the left, indicating a potential imbalance in the representation of studies. Notably, the plots above the curve correspond to research with larger impact sizes, demonstrating a greater relationship between work and patient satisfaction. According to these studies, there is a positive relationship between work-related characteristics and patient satisfaction. The plots below the curve, in particular the 1 plot on the right side, show research with smaller effect sizes, implying a weaker association between work and patient satisfaction. Furthermore, the existence of plots approaching the vertical line raises concerns regarding potential bias introduced into the meta-analysis by these studies. Such research may have an undue impact on the overall findings, potentially skewing the perception of the association. As a result, rigorous examination of these papers is required to identify any potential sources of bias that may affect the validity of the meta-analysis results.

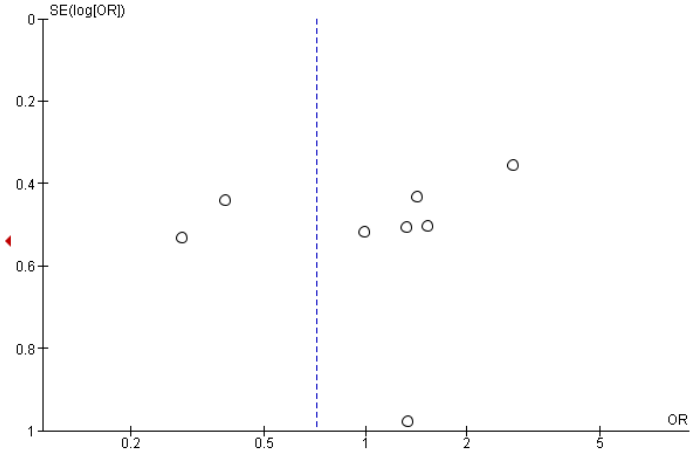

Figure 3. Funnel plot of the relationship between work and patient satisfaction

Analysis & Discussion

Service quality plays a crucial role in the satisfaction of customers. It significantly influences the level of satisfaction experienced by customers when engaging with a service provider. The quality of service provided is a key determinant of customer satisfaction, fostering loyalty and positive word-of-mouth recommendations (Khoerunnisa, 2022; Syapitri, 2021; Perceka, 2020). In the healthcare context, patients are more likely to be satisfied if healthcare providers deliver high-quality services that encompass aspects such as respecting patient privacy, understanding

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patient concerns, displaying friendliness and politeness, maintaining timeliness, and streamlining admission and registration processes (Andriani, 2022; Anfal, 2020; Negao, 2019). Creating patient satisfaction yields several benefits, including establishing harmonious relationships between companies and customers, fostering repeat purchases, encouraging customer loyalty, generating positive word-of-mouth recommendations, and ultimately increasing profitability (Tulaisyah, 2022; Yusra, 2020; Ryandini, 2019). Patient satisfaction refers to the extent to which a patient's needs, desires, and expectations are fulfilled through the services they receive. It represents the gap between the actual service received and the patient's expectations (Tulaisyah, 2022; Yusra, 2020; Ryandini, 2019).

According to Moison, Walter, and White (2008), patient satisfaction is influenced by various factors, including service quality, product characteristics, price, location, facilities, image, visual design of the hospital, atmosphere, and communication. These elements collectively contribute to shaping the overall patient experience and their perception of the quality of care received. However, it is important to recognize that service quality may not always correlate directly with patient satisfaction. Instances of low patient satisfaction can arise from the lack of technical competence among healthcare professionals, leading to inadequately implemented standard procedures, significant errors, reduced effectiveness, patient discomfort, and compromised safety (Mutmainnah, 2021; Rustono, 2019). These factors can hinder the delivery of high-quality services, subsequently impacting patient satisfaction.

Meanwhile, education has no relationship with patient satisfaction because a person's level of education might influence their rational and irrational attitude while making decisions, using, or utilising a health service. Education is a process of changing behaviour; the higher a person's education, the more health knowledge and information is known. The greater a person's education, the easier it is for them to obtain information and the greater their understanding of the meaning of their health, resulting in increased demands and expectations for the health services they require. (Aulia, 2022; Anfal, 2020; Respondents with higher education are dissatisfied with the health services provided by health workers, whereas respondents with low education and high education and good economic status are able to make good health decisions regarding the desired health services. 2019 Lilies; 2021 Pretirose; 2022 Perceka) The more educated a person is, the better he is at analysing and experiencing the services offered, allowing him to discriminate between excellent and poor servants. Respondents with less education, on the other hand, often simply get health care without asking or expecting more, and have a high tendency of perceptual inconsistency (non-steady attitude), making them readily swayed when compared to someone with a higher educational background. Arifin (2019), Negao (2019), and Pangaribuan (2022). According to Baron and Bryne (2011), the following factors influence a person's satisfaction: education, intelligence, special skills, age, gender, physical condition, work experience, years of service, personality, emotions, ways of thinking, perception, and work attitude.

Education may also be irrelevant to patient satisfaction because each individual's sense of pleasure is unique, but manifestations of satisfaction for a group of persons can occur practically identically due to the influence of the environment and culture on particular groups. Patient happiness is governed not just by the level of education, but also by the patient's desire to receive outstanding and satisfactory service. Aside from age and occupation, education is one of the demographic parameters that determine patient satisfaction. This is consistent with the findings of Araujo (2022) and Tonasih (2021).

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Anfal's study from 2020 shows that the more satisfied a patient is with the health care system, the better the quality of the service. The level of service at the hospital will affect how happy the patients are. The more satisfied a patient is with the quality of care they receive, the more likely they are to use the hospital's services again and tell others about them. With a p-value of 0.008, Pakpahan's study in 2022 showed that the quality of service is linked to how happy patients are. When it comes to nursing, a service is good if it meets the needs of the patients as expected. This great service will help build a culture of care for all patients and give them the most happiness possible. Factors that affect satisfaction are tangible (physical evidence), which is defined as the appearance or appearance of the officer's equipment providing services for a service, reliability (reliability), which is measuring the reliability of a service to consumers, responsiveness (responsiveness), which is the ability to help consumers and provide the right service where customers are waiting too long, assurance (guarantee), which is a dimension of service quality, and assurance (guarantee). Comparisons between the three variables are possible, but it should be noted that they are not proportional. This is because the number of samples and characteristics of the research studies for each variable studied in the meta-analysis are not the same, and the level of heterogeneity in each variable is different, which means that the analytical model used is different for each variable.

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Finally, this meta-analysis examined service quality, education, occupation, and patient satisfaction in healthcare institutions. Service quality significantly correlated with patient satisfaction. High-quality services boosted patient happiness, loyalty, and word-of-mouth recommendations. However, publication bias in many studies necessitates cautious interpretation. Educational level and patient satisfaction were inconsistent. The relationship between education and contentment was complex, with varied results. Education may affect patient satisfaction depending on rational decision-making, health understanding, and information-seeking.

The findings suggest several important healthcare and research recommendations: To boost patient satisfaction, healthcare facilities should focus on service quality. Specialised training in empathy, communication, timeliness, and efficiency can achieve this. Second, researchers must consider publication bias and include publications with different effect sizes and rigorous methodology. Transparency and strong reporting will improve factor interaction comprehension. Education's complicated implications on patient satisfaction need further study. Health literacy, decision-making, and information-seeking among patients with different education levels should be explored. Longitudinal research would reveal how service quality, education, occupation, and other characteristics affect patient satisfaction. Healthcare providers could discover areas for improvement and adjust their offerings. Comparative examination of healthcare facilities can also assess service quality and patient satisfaction. Identifying factors that boost patient happiness in various situations might influence best practises and improve patient experiences..

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Conflict of interest

The authors declare that they have no conflicts of interest related to this study. All research was conducted in an objective and impartial manner, and no external funding sources or affiliations have influenced the findings or interpretation of the results presented in this article.

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