



(REVIEW ARTICLE)



## Factors influencing outpatient satisfaction in hospitals: Literature review

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### Abstract

**Background:** The hospital has a variety of services, one of which is the outpatient service as the most frequently service visited by patients. The continuity of outpatient services is determined by patient satisfaction and the services provided which are closely related to each other. **Objectives:** Several factors influence outpatient satisfaction at the hospital. **Methods:** Search articles through the PubMed and Google Scholar database using the keywords "outpatient" AND "satisfaction" OR "outpatient" AND "satisfaction" AND "determinants". Items that match the criteria are as many as 7 articles. **Results:** The research was conducted in China (mostly as research sites), Vietnam, Ethiopia, and Pakistan. Various factors were found in the research and the ones that emerged most were related to waiting time, costs and services provided by health workers at the hospital. **Conclusion:** Factors influencing outpatient satisfaction at the hospital can be assessed based on functional quality and technical quality.

**Keywords:** Patient Satisfaction; Outpatient; Service Quality; Hospital

### 1. Introduction

World Health Organization or what is abbreviated as WHO states that hospitals are health facilities that complement and strengthen the effectiveness of the health system, providing sustainable health services for acute and complex conditions. This means that hospitals have a very big function in the health services provided to the community, especially for patients who experience serious health problems [1]. The American Hospital Association defines a hospital as an institution that is licensed with a minimum of six beds to provide health services, has an organized health staff, and provides services under supervision [2]. Hospitals have various kinds of services for patients such as outpatient services, inpatient services, laboratories, pharmacy, radiology, administration, and so on.

Outpatient services are a service that patients often visit when they go to the hospital. The Central Statistics Agency or Badan Pusat Statistik (BPS) of Solok City in 2019 showed that Badan Penyelenggara Jaminan Sosial (BPJS) participants who received outpatient services were 12,617 for first level outpatient cases and 126,714 for advanced outpatient cases while for inpatient services it was 13,177 [3]. The large number of outpatients requires special attention to ensure the quality of service received by patients. Apart from that, outpatient services include services at hospitals which provide income for the hospital at a greater value than inpatient services. In the article entitled "Investment Analysis of Feasibility Study of Plans for Development of Inpatient and Outpatient Hospital Services" an estimated income from an unnamed regional hospital in Kebumen Regency was calculated. The estimated value of outpatient income in the first year was IDR 798,525,000.00, while the estimated inpatient development income for the first year was IDR 135,910,800.00 [4].

The continuity of outpatient services is largely determined by patient safety and the services provided by the hospital. Safety itself is a value given regarding the good or bad quality of service felt by the patient [5]. Patient safety is also an important priority in health services and is the most important aspect in quality health service management [6].

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Therefore, improving the quality of service also has an effect on increasing the satisfaction and level of safety of patients who receive outpatient services.

The quality of health services is closely related to patient satisfaction because service quality originates from customer needs and leads to customer perceptions [7]. Thus, the view of quality is patient-centered and can move patients. If the quality of service is good, then patients will be happy to return to the hospital where they have been served if they need outpatient services. Apart from that, outpatient satisfaction is greatly influenced by conditions that have recently occurred in the world, including Indonesia. The world is facing the COVID-19 outbreak which is affecting hospital services, both for public hospitals and those that serve as COVID-19 referrals. This condition has an impact on reducing the number of visiting outpatients and causing a decrease in hospital income by up to 30-50% [8].

The discussion regarding the satisfaction of outpatients in hospitals is an interesting topic for researchers to write articles with the aim of finding out the factors that can influence this satisfaction. By knowing the factors that influence outpatient satisfaction, it is hoped that it can help hospitals and other parties who read this article to pay attention to these factors and improve outpatient services. Apart from that, it is also hoped that policy makers can pay more attention to the quality of outpatient services, especially for hospitals whose services are still lacking so that in the end all patients in whatever hospital they are served can feel satisfied with the services provided.

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## 2. Material and methods

In writing this article, the literature review method was used. Literature review is a method that focuses on a predetermined discussion and can later describe the development of that discussion [9]. The data used in this article were collected through two types of databases, PubMed and Google Scholar. The articles searched for are English language articles on the two search databases. In the search using the keywords "outpatient" AND satisfaction" OR "outpatient" AND "satisfaction" AND "determinants".

The selected articles are articles published in the period 2019-2023 (the last 5 years). The selected articles are open access, full text, and original articles. The article used discusses factors that influence the satisfaction of outpatients in hospitals. In addition, there are no restrictions on the region or country used in writing selected articles. However, the research design used in the article is limited to qualitative and quantitative research only. When selecting articles for research purposes, not all of them specifically stated their aim, namely to identify factors that influence the satisfaction of outpatients in hospitals.

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## 3. Results and discussion

After searching for articles that met the researchers' criteria and needs, a total of 7 articles were obtained which mentioned factors that influence the satisfaction of outpatients in hospitals. The locations of the countries where research articles were found included China, Vietnam, Ethiopia and Pakistan. 1 article was found for each country, except for China, 3 articles were found. However, there was 1 article whose location was not identified because it did not mention it in the research article.

The articles obtained had quite diverse publication years, namely in 2019 there were 3 articles, in 2020 there was 1 article, in 2021 there were 2 articles, and in 2022 there was 1 article. Of the 7 articles, 6 of them used quantitative research methods while 1 article used a combination of quantitative and qualitative methods. From the research found, the largest number of samples was in research by Liang et al (2021) of 11,959 in public hospitals in China [10]. Meanwhile, the study with the fewest samples was Theofilou's (2022) study with a total of 63 samples at a public hospital [11].

Through the articles obtained, there are several factors in each hospital that influence outpatient satisfaction. In table 1, it can be seen that the factors that most often appear or are mentioned in articles are waiting time, costs and services for health workers in hospitals. Through further analysis, the factors that influence the satisfaction of outpatients in hospitals can be grouped through Gronroos theory regarding two dimensions of service quality, namely functional quality and technical quality. A more detailed distribution of factors is in Table 2.

**Table 1** Summary of Research Results from Articles

Author (Year)	Name	Title	Research Method	Sample or Research Population	Research Site	Results
Hu et al (2019) [10]		How Perceived Quality of Care Affects Outpatient Satisfaction in China: A Cross-Sectional Study of 136 Tertiary Hospitals	The quantitative method of study is cross-sectional	Survey of 136 tertiary hospitals spread across 31 provinces with a sample size of 200 per hospital	In tertiary hospitals spread across 31 provinces in China	The factors analyzed influencing to patient satisfaction in this article are waiting time, service and treatment, cost, and environment
Giao et all (2020) [11]		Outpatient Satisfaction at Private General Hospitals in Ho Chi Minh City, Vietnam	The qualitative method uses in-depth interviews and the quantitative method uses data analysis via SPSS	Interviews on 450 treated outpatients	An Sinh General Hospital, Hoan My General Hospital, Columbia Asia International Hospital, FV Hospital, and Vu Anh International General Hospital in Vietnam	Factors that influence patient satisfaction are hospital facilities and environment, professional capacity of doctors and nurses, treatment results, hospital care, treatment time, patient reliability in the hospital, and treatment costs.
Theofilou (2022) [12]		Investigation of Outpatient Satisfaction in a General Hospital: The Effect of Socio-Demographic Factors	Quantitative method through data collection from questionnaires, using a cross-sectional study design	The sample consisted of 36 men and 27 women with the criteria being that patients were >18 years old, communicated in Greek, and regularly visited hospital outpatients.	Regular Outpatient Clinics (OTCs) of a General Hospital	Factors that influence the satisfaction of outpatients in hospitals are socio-demographic factors which are broken down into several factors, namely staff attitude, respect for patient personality, quality of medical services, medical behavior, psychological support, medical examination behavior, quality of nursing services, nurse behavior, psychological support from nurses, the attitude of administrative staff, and transaction waiting times.
Geberu et al (2019) [13]		Factors of patient satisfaction in adult outpatient departments of private wing and regular services in public hospitals	Quantitative method with study design, namely comparative cross-sectional	The final sample used was 992 with a description of 496 for regular service	Addis, Ababa, Ethiopia in 7 hospitals	Factors that influence patient satisfaction include gender, waiting time, information regarding preventing disease recurrence, information

	of Addis Ababa, Ethiopia: a comparative cross-sectional study		and 496 for private wing		regarding drug use and side effects.
Hussain et al (2019) [14]	Promoting OPD Patient Satisfaction through Different Healthcare Determinants: A Study of Public Sector Hospitals	Quantitative method using regression analysis	The sample size was 700 collected from outpatients and 579 responses were selected for analysis	The study was conducted at public hospitals in Bahawalpur, Bahawalnagar, Rahim Yar Khan, and Lodhran in Punjab, Pakistan	Factors that influence the satisfaction of outpatients in hospitals are equipment, information obtained, distance to the hospital and physical infrastructure.
Liang et al (2021) [15]	Patient satisfaction in China: a national survey of inpatients and outpatients	Quantitative method with a national survey cross-sectional study design	Sampling was taken using a random sampling method with the criteria of having visited a public hospital within a period of 1 year and obtained 11,959 participants who took part in the survey	Research conducted in China	Factors that influence patient satisfaction in both outpatient and inpatient hospital services in general are communication with doctors, medical costs, social class, and gender.
Ren et al (2021) [16]	The situation and influencing factors of outpatient satisfaction in large hospitals: Evidence from Henan province, China	Quantitative method using cross-sectional studies	The sample was selected using stratified random with the category of outpatients who agreed to take part in the survey as many as 630 patients	The research location was China, to be precise, it was carried out in 13 large hospitals located in 4 locations, namely Zheng-zou, Luoyang, Kaifeng, and Xinxiang.	Influencing factors analyzed in the research include environment and facilities, waiting time, doctor and patient communication, professional services, and accessibility to treatment information

**Table 2** Grouping of Factors that Influence Outpatient Satisfaction in Hospitals Based On 2 Dimensions of Service Quality According to Gronroos Theory

Functional Quality	Technical Quality
Attitude of staff in hospital	Waiting time
Behavior during service	Quality of medical services
Information to patients regarding the disease	Treatment results
Communication with doctors	Cost of treatment
Social class	Hospital equipment and facilities
Gender	Distance from hospital
Accessibility to information	Hospital infrastructure and environment

Factors that influence outpatients in hospitals are grouped based on Gronroos theory regarding service quality dimensions, functional quality and technical quality. This grouping exists because these two aspects contribute to achieving patient satisfaction in the health sector [17]. Where in the previous section we explained how patient satisfaction is related to the quality of service. According to Gronroos, functional quality is a quality that occurs when customers receive technical quality.

Meanwhile, technical quality is a quality that is closely related to concrete service for customers [18]. Or it can also be interpreted as a service production process by paying attention to technical aspects [17]. Customers in matters related to satisfaction with outpatient services in hospitals are patients. These two qualities will influence the services produced and influence patient satisfaction. These two groupings of factors can be described as follows.

### 3.1. Functional Quality

Functional quality is a dimension related to the service process that will be received by the patient. Functional quality has several components, namely credibility, responsiveness, empathy, and promptness [17]. Credibility is an assessment made by someone regarding whether what is conveyed is something that can be trusted or not [19]. Factors included in the credibility component from Table 2 are information to patients regarding the disease and communication with doctors. This is because information and communication with doctors and other staff in hospital outpatient services requires credibility to increase trust which will affect patient satisfaction.

The second component, namely responsiveness is the ability to help customers through fast and responsive services [20]. Factors included in this component are the attitude of the staff in the hospital. The third component of empathy is how the workforce in hospital outpatient care cares about what the patient feels. Factors included in the empathy component are behavior during service such as medical examination behavior, nurse behavior, and psychological support from nurses [11]. The final component is promptness or speed where one of the factors included is accessibility to information.

### 3.2. Technical Quality

Technical quality has several components including tangibility, reliability, technical competence, and safety [17]. Tangibility is one component that can be interpreted as the appearance of facilities, equipment and technology [21]. So it can be said to be a factor with visible or tangible components. Factors included in the tangibility component include hospital equipment and facilities, infrastructure and the hospital environment. Reliability is a skill in providing good, accurate and trustworthy service [17]. Factors included in this component are the quality of medical services.

The next component is technical competence or technical competence related to the abilities and knowledge possessed in treating patients. Factors related to these components are treatment outcomes and waiting times. This is because treatment results are related to the knowledge and abilities of the medical profession in the hospital. Apart from that, it is also related to patient trust in the hospital through the best treatment results [13]. Regarding waiting time, it is related to interrelated competencies, for example waiting time for communication with a doctor and being examined, if it is bad, it will affect patient satisfaction.

The final component is safety or security, which means feeling safe and not threatened by dangers or risks that can occur while receiving health services. Factors related to security components are not yet visible in the factors above. However, the safety component can be supported by factors such as equipment, this is because equipment also influences patient satisfaction. Several problems related to equipment threaten safety, such as equipment not being maintained, unhygienic and not cleaned [15].

The factors most frequently mentioned were related to waiting times, costs, and the health services provided. In a study, it shows that waiting time has a significant relationship with patient satisfaction, this is due to the gap between expectations and the service received [22]. So outpatient services are expected to be able to provide short waiting times in order to increase patient satisfaction. Especially looking at the reality that in hospitals in Indonesia there are still patients waiting from morning to afternoon and even evening to receive outpatient services.

Costs and health services provided to patients are impacts that influence patient satisfaction and are interconnected. If the costs are small and the health services provided are much better, then patient satisfaction will be higher compared to more expensive costs but the service obtained is not the same as cheaper costs. It is hoped that treatment costs are in accordance with the patient's ability to pay and are reasonable [13]. Meanwhile, the services provided can include explaining examination results in detail, explaining treatment and medicines, the ability of qualified doctors, and respect for patients [12]. These aspects must be developed in order to create an increase in patient satisfaction.

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#### 4. Conclusion

Through the literature review, it was found that the factors that influence the satisfaction of outpatients in hospitals can be grouped according to Gronroos theory regarding the dimensions of service quality which consist of functional quality and technical quality. Functional quality is related to the service process provided to patients, while the technical quality of the service production process is related to technical matters. Functional quality consists of the components of credibility, responsiveness, empathy and promptness. And technical quality consists of tangibility, reliability, technical competence and safety components. Several factors include functional quality such as staff attitudes, behavior, information provided, communication, and so on. Meanwhile, factors include technical quality such as waiting time, service quality, costs, facilities, and so on. Further review and evaluation is needed at each hospital regarding the factors that influence outpatient satisfaction that need to be considered. This is so that patients feel satisfied with the quality of service and want to continue receiving services at the hospital.

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#### Compliance with ethical standards

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