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# SYSTEMATIC REVIEW: DETERMINANTS OF PATIENT SATISFACTION WITH HOSPITAL SERVICES

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### ABSTRACT

**Background:** Satisfactory and quality service will shape patient or customer loyalty, and satisfaction is closely related to "word of mouth". The next effect will be on the process of forming an image of an increasing hospital. This is due to very tight competition conditions. So each hospital will try to put itself as best as possible in the eyes of patients / customers to be trusted to meet their needs in the health sector. Usually health care satisfaction is the highest level of satisfaction above 85%. Research is needed on the determinants of patient satisfaction with hospital services as a reference for improving the quality of hospital services.

**Objectives:** To determine the determinant of patient satisfaction with hospital services.

**Method:** A systematic review through journal review regarding the determinants of patient satisfaction with hospital services. Search articles accessed from internet databases, namely: ProQuest for English language publications, overall from abroad, last 12 months, using a combination of search terms " Patient satisfaction, determinants, hospital ", article selection using screening. Qualitative thematic analysis is used for synthesis.

**Result.:** The similar key findings from the 10 papers are empathy or interpersonal relations becomes a determinant that dominates the increase in patient satisfaction with hospital services. Empathy is a channel of efficient communication with patients and is also considered an important determinant of clinical outcomes.

**Conclusions:** 10 studies included in this systematic review show the similar key findings. empathy or interpersonal relations becomes a determinant that dominates the increase in patient satisfaction with hospital services. As a recommendation for further research, it is necessary to search for the determinants of patient satisfaction with hospital services through several data bases to obtain more information about the determinants of patient satisfaction with hospitals.

**Keywords:** Patient satisfaction, determinants, hospital

### INTRODUCTION

Patient satisfaction is a subjective and challenging perception, which links physical, expressive, psychological, social, cultural factors. Dissatisfaction arises if the patient feels inconsistencies between the treatment expected and given [1]. Patient satisfaction is also defined as the customer's response to the discrepancy between the previous level of importance and the actual performance he feels after use [1].

Patient / customer satisfaction is the core of patient / customer oriented marketing. Satisfying and quality service will shape patient / customer loyalty, and satisfaction is closely related to "word of mouth", the satisfying service will also bring in new customers [1]. The next effect will continue in the process of forming an image of an increasing hospital. This is due to very tight competition conditions. So each hospital will try to put itself as best as possible in the eyes of patients / customers to be trusted to meet their needs in the health sector [1].

Factors affecting the quality of health services include: technical competence (access competence), access to services (access to service), service effectiveness (effectiveness), interpersonal relations (interpersonal relations), continuity of service (continuity of care), service security (safety), service convenience (amenities) and timeliness (timeless) [1]. Parsuraman, A. et al. (1988) developed SERVQUAL scale based on five service quality dimensions Tangibility- Infrastructural aspects of services and aesthetic of personnel, Reliability- Ability to execute services as per the promise, Responsiveness- Eagerness to help customers and providing fast service, Assurance- Trust and confidence generating ability of knowledgeable and courteous employees and Empathy- Trust and confidence generating ability of knowledgeable and courteous employees [2].

Guaranteed quality and improved hospital care are important factors for an efficient health care system. Many countries underline this central interest through laws, reforms and initiatives. In Germany, for example the Hospital Structure Law, which came into force in January 2016, included quality or hospital care as criteria for hospital planning and hospital financing. As the dimensions of the quality of hospital care, safety and clinical effectiveness are mentioned most often, satisfaction is increasingly felt as an additional quality dimension. Patient satisfaction is one of the important indicators for the quality of care. Assessing health care based on clinical, economic or other criteria determined by the provider may not always reflect patient satisfaction. [3].

Although assessing consumer satisfaction is considered an important input to ensure the quality of health care, it is often overlooked. The emergency department (ER) plays an important role in the health care system, but often becomes a source of anxiety and confusion for patients at a time when they have been overwhelmed by fear of disease and uncertainty. The general needs of patients include receiving information about the various stages of their care, guarantee that they are safe, and knowledge of the appropriate follow-up treatment plan before being sent home. Because of the well-known restrictions at the time of the doctor, meeting this level of patient satisfaction often fails [4].

Usually health care satisfaction is very high and according to many studies satisfaction levels are above 85% [3]. Satisfaction of patients with care services during hospital visits is important in considering the quality and results of care. The increasing number of patients in need of treatment causes decentralization of care to low-level hospitals without documenting patient perceptions about service quality. Patient satisfaction can provide valuable and unique insights for daily hospital care and is widely accepted as a Sign of Quality of Care because evaluation of patient satisfaction includes "internal" aspects (inward insight) of hospital care, which often remain unrecorded, such as communication, empathy or interaction. Thus, it is not surprising that measurement of patient satisfaction is often used as a tool to improve the quality of care. International studies also show that ongoing evaluation and publication of patient surveys can complement public reporting on clinical outcomes and quality processes in helping patients choose hospitals and to improve the quality of long-term hospital care. Some countries have introduced national surveys and have published subjective perspectives of patients about inpatient care, whereas in many cases, hospitals collect data on patient satisfaction themselves and use this information for internal quality management. However, some studies note that, so far, some hospitals actually use patient surveys as a

basis for measures to improve quality, and very little information is available about feedback systems to improve the quality of care based on patient surveys. One possible reason for this deficit is that the factors that influence patient satisfaction have been studied inadequately until now [3].

Many studies explore the influence of demographic factors and patient attributes on patient satisfaction and often show different findings. It is generally accepted that patient perceptions influenced by socio-cultural and socio-economic factors and low levels of education or better health conditions, for example, can result in a more positive satisfaction rating. The relationship between patient satisfaction and clinical performance at the international level is very little and insufficient information is available about the relationship between hospital characteristics and patient satisfaction with hospital care. However, this finding is very necessary to improve patient satisfaction and improve the quality of the accompanying services [3].

The purpose of this schematic review is to determine the determinants of patient satisfaction with hospital services. Based on this, the authors hope that the findings of this review and identification of determinants of patient satisfaction will help hospitals to further develop and improve the quality of care.

## **METHOD**

### ***Search Strategy***

A systematic review through an article review of patient satisfaction with hospital services to identify determinants that can improve patient satisfaction. This systematic review follows the PRISMA (Preferred Reporting Items for Systematic Review) guidelines [5][6]. Article search is limited to scholarly journals in English that are accessed in the ProQuest database. The initial literature search was carried out in the last 12 months. The author start to searching at June 2019. Search strategies include a combination of the key words patient satisfaction, determinants and hospital [Diagram 1].

### ***Operational Definition***

Patient satisfaction is a subjective and challenging perception, which links physical, expressive, psychological, social, cultural factors [1].

The determinants of patient satisfaction with hospital services is Factors affecting patient satisfaction of health services [2].

### ***Criteria for Inclusion and Exclusion***

Exclusion criteria in this search include primary care and not article. Inclusion criteria include all determinants of patient satisfaction with hospital health services, including using language English, full text. Articles that meet the inclusion criteria are collected and examined systematically. Included in the study should describe the determinants of patient satisfaction with hospital services to provide input to health services. The search process gets 10 articles that meet the requirements for inclusion and exclusion criteria.

### ***Search Result***

Database search resulted in 9.064 articles after deleting duplicates, with 414 articles meeting inclusion criteria Scholarly Journals, last 12 months (May 2018 - May 2019), full text. 57 articles fulfilling inclusion criteria Scholarly Journals, last 12 months (May 2018 -May 2019), full text in the hospital, not primarycare. 10 articles identified for final review with full text, Scholarly Journals, last 12 months, hospitals AND (patient satisfaction) NOT primary care, article. Because the intention is to update

systematic reviews on patient satisfaction determinants of hospital services, search requests are limited to English-language articles for the last 12 months from May 2019.

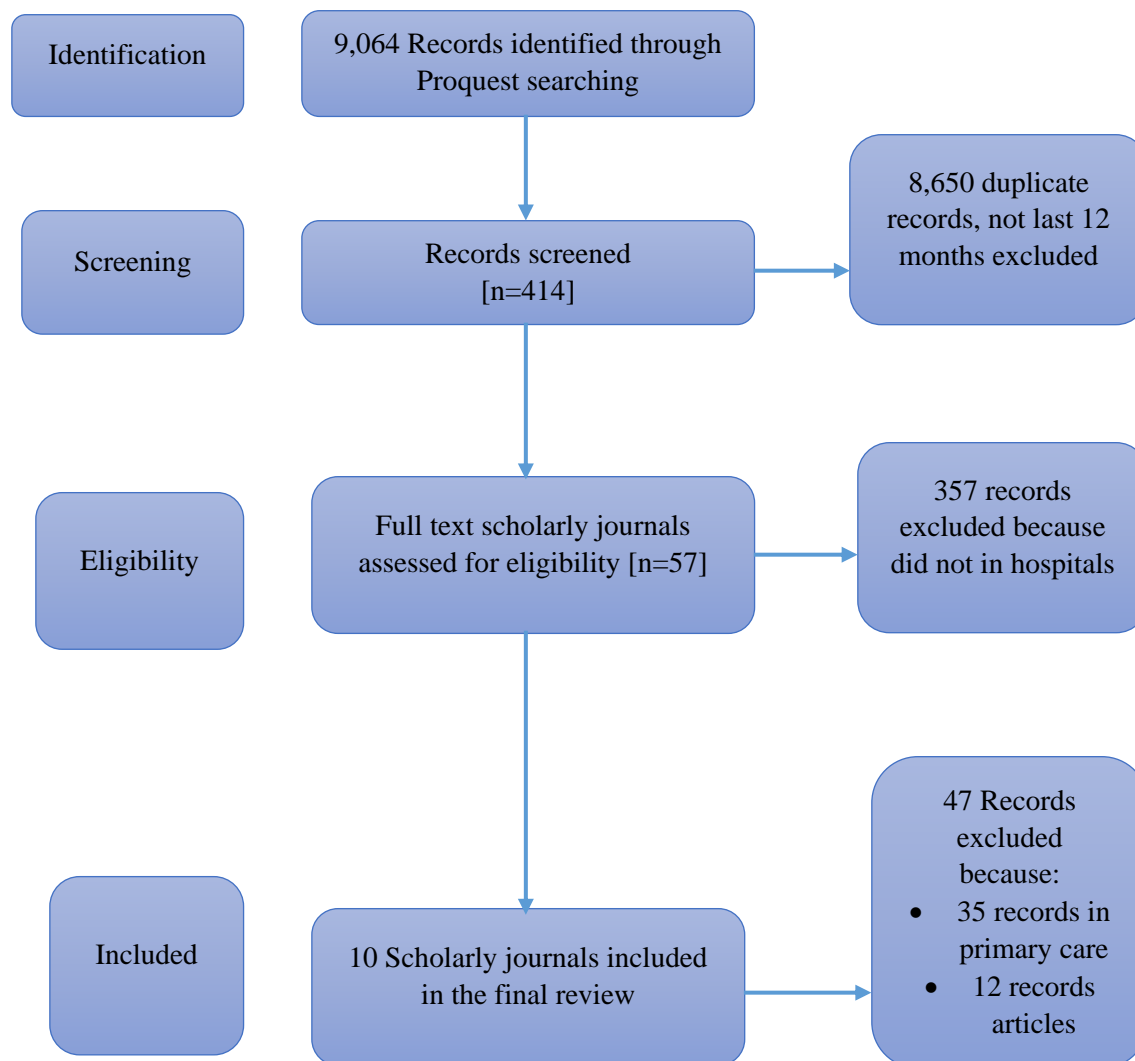


Diagram 1. ProQuest Search Strategy using PRISMA guidelines [5][6]

## RESULTS

From the 10 papers that the author reviewed, there were found some determinants of patient satisfaction with hospital services with varied research methods. The following is the description in table 1.

Table 1. 10 Final Papers

Writer	Year	Place	Method	Resume
Benwu K,Gebremeddhin H. A	2019	Mekelle, Ethiopia	Cross Sectional Study	The proportion of satisfaction of patients undergoing anesthesia at Ayder Comprehensive Specialized Hospital is 88.33% which is determined by the factors of pain management, nausea and vomiting, and shortness of breath. Patients who were evaluated by anesthetists at preoperative time had a high level of satisfaction (92.86%) than those who did not get an anesthetic visit the day before surgery (P <0.0001) [7].
Gu D,Yang X,Li X,et al	2018	China	Cross Sectional Study	Patient satisfaction and continued use of Mobile Internet-based Health Services (MIHS) have a significant positive effect on improving Word-of-Mouth patients. Satisfaction at MIHS can promote the intention to continue using MIHS. The perceived benefits of MIHS have a positive influence on patient satisfaction [8].
Umeokonkwo C,Aniebue P,Onoka C,et al	2018	Anambra State, Nigeria	Cross Sectional Comparative study	Satisfaction of high HIV AIDS patients at General Hospitals, whereas in private hospitals many are influenced by education level, location of residence, and frequency of ARV doses [9].
Watanabe S,Yoshida T,Kono T,et al	2018	Okayama University Hospital, Japan	Qualitative Study	Responding to emotions in patients is an important behavior in communication between dentists and patients. The empathic attitude among doctors is a significant determinant of patient satisfaction [10].
Eleni T,Mekibib T,Kaleab T	2018	In Bahir Dar Town, Amhara Regional State, North West Ethiopia	Quantitative institution- based cross sectional study	Patient satisfaction is higher in private health facilities (66.7%) compared to public health facilities (40.1%). Variables such as gender, age of the patient, previous admission history, length of stay in hospital, waiting time before admission, and explanation

Writer	Year	Place	Method	Resume
				given about the admission process were clearly found to be independent predictors of hospitalization satisfaction [11].
Bainbridge E, Hallahan B, McGuinness D, et al	2018	Ireland	Cohort Prospective	There is wide variation in satisfaction with coercive care. Greater satisfaction with care is positively related to clinical variables [12]. Higher initial awareness of disease and older age is associated with more satisfaction with treatment at baseline and follow-up [12].
Feuwerker S, Rankin N, Wohler B	2019	USA	Design Thinking Methodology	One solution that we might make using the design process is advocating ED patients - preclinical medical students are placed in ED during rush hour to focus on making patients more comfortable and tend to be more "non-clinical" in their needs. Students will get a strong appreciation for the flow of the ER, hospitals in general and learning to solve problems with patients who are frustrated about their experiences [4].
Zhu J, Li J, Zhang Z, et al	2019	Beijing, China	A labeled Discrete Choice Experiment	There is an overwhelming dominance of the provision of A-class public health services in China because the waiting time factor is lower, there are options to choose doctors, lower maintenance costs, shorter travel times and clean waiting rooms [13].
Tollit M, Feldman D, McKie G, et al	2018	Melbourne, Australia	Observational quantitative design	The majority of participants were satisfied with the RCHGS as a whole (parents: 88.3%, patients: 92.3%) and would recommend services (parents: 94.6%, patients: 88.6%). Obtained a high level of satisfaction with all aspects of family-centered care. More than 90% of patients and parents report

Writer	Year	Place	Method	Resume
Shulman B, Crowe B, Hutzler L, et al	2018	New York, USA	Cohort Study	being satisfied / very satisfied with health staff in the field of gender knowledge and maintaining confidentiality, and respecting patient privacy through outpatient and administrative services [14].  The average income was negatively associated with the overall ranking of the patient's hospital ( $p < 0.001$ ). This is also negatively related to the patient's willingness to recommend the hospital ( $p < 0.001$ ). Socio-economic factors do indeed affect the HCAPS score in the same quality care setting [15].

Based on the results of the review it was found that there were 5 papers using the cross sectional study method with the results of the study obtained that the proportion of satisfaction of patients undergoing anesthesia at Ayder Comprehensive Specialized Hospital, Makelle, Ethiopia is 88.33% which is determined by the factors of pain management, nausea and vomiting, and shortness of breath [7]. Patients who were evaluated by anesthetists at preoperative time had a high level of satisfaction (92.86%) than those who did not get an anesthetic visit the day before surgery ( $P < 0.0001$ ) [7]. Research in China by Gu D, Yang X, Li X, et al (2018) found patient satisfaction and continued use of Mobile Internet-based Health Services (MIHS) have a significant positive effect on improving Word-of-Mouth patients, therefore satisfaction at MIHS can promote the intention to continue using MIHS and the perceived benefits of MIHS have a positive influence on patient satisfaction [8]. Umeokonkwo C, Aniebue P, Onoka C, et al (2018) in Anambra State, Nigeria found satisfaction of high HIV AIDS patients at General Hospitals, whereas in private hospitals many are influenced by education level, location of residence, and frequency of ARV doses [9]. In Bahir Dar Town, Amhara was conducted by Eleni T, Mekibib T, Kaleab T (2018) found patient satisfaction is higher in private health facilities (66.7%) compared to public health facilities (40.1%). Variables such as gender, age of the patient, previous admission history, length of stay in hospital, waiting time before admission, and explanation given about the admission process were clearly found to be independent predictors of hospitalization satisfaction [11]. With the same method Tollit M, Feldman D, McKie G, et al (2018) in Meulborne, Australia found the majority of participants were satisfied with the RCHGS as a whole (parents: 88.3%, patients: 92.3%) and would recommend services (parents: 94.6%, patients: 88.6%) [14]. Obtained a high level of satisfaction with all aspects of family-centered care [14]. More than 90% of patients and parents report being satisfied / very satisfied with health staff in the field of gender knowledge and maintaining confidentiality, and respecting patient privacy through outpatient and administrative services [14].

A qualitative study by Watanabe S, Yoshida T, Kono T, et al (2018) in Okayama University Hospital, Japan found responding to emotions in patients is an important behavior in communication between dentists and patients [10]. The empathic attitude among doctors is a significant determinant of patient satisfaction [10]. A Cohort Prospective study in Ireland by Bainbridge E, Hallahan B, McGuinness D, et al (2018) found

there is wide variation in satisfaction with coercive care [12]. Greater satisfaction with care is positively related to clinical variables [12]. Higher initial awareness of disease and older age is associated with more satisfaction with treatment at baseline and follow-up [12]. The other cohort study by Shulman B, Crowe B, Hutzler L, et al (2019) in New York, USA found the average income was negatively associated with the overall ranking of the patient's hospital ( $p < 0.001$ ) [15]. This is also negatively related to the patient's willingness to recommend the hospital ( $p < 0.001$ ) [15]. Socio-economic factors do indeed affect the HCAPS score in the same quality care setting [15]. In USA, Feuwerker S, Rankin N, Wohler B (2019) use Design Thinking Methodology found that one solution that we might make using the design process is advocating Emergency Department (ED) patients - preclinical medical students are placed in ED during rush hour to focus on making patients more comfortable and tend to be more "non-clinical" in their needs [4]. Students will get a strong appreciation for the flow of the ER, hospitals in general and learning to solve problems with patients who are frustrated about their experiences [4]. A labeled Discrete Choice Experiment in Beijing, China by Zhu J, Li J, Zhang Z, et al (2019) found there is an overwhelming dominance of the provision of A-class public health services in China because the waiting time factor is lower, there are options to choose doctors, lower maintenance costs, shorter travel times and clean waiting rooms [13].

The author found the similar key findings from the 10 papers are empathy or interpersonal relations becomes a determinant that dominates the increase in patient satisfaction with hospital services. Empathy is a channel of efficient communication with patients and is also considered an important determinant of clinical outcomes.

## **DISCUSSION**

Empathy or interpersonal relations becomes a determinant that dominates the increase in patient satisfaction with hospital services. Empathy is a channel of efficient communication with patients and is also considered an important determinant of clinical outcomes. Empathy is the ability to put yourself in someone else's place, to understand the feelings and problems of others [10]. This is a complex concept consisting of cognitive, emotional, and behavioral elements; However, there is little consensus about the definition of empathy. Hojat defines empathy in the context of patient care, as follows: "Empathy is the dominant cognitive (not emotional) attribute that involves understanding (rather than feeling) the patient's experience, attention and perspective, combined with the ability to communicate this understanding [10]. The study also found that there was a difference in patient satisfaction with hospital services based on characteristics of sex, age, income, access to patient and occupation, but the factors of Tangibility, Reliability, Responsiveness, Assurance and Empathy in hospital health services still had an influence large on patient satisfaction at hospital services [2].

The highest health service quality gap was observed for empathy or interpersonal relationships. This shows that most hospitals perform satisfactorily on the factors of clinical competence and physical appearance of the hospital (tangibility) and do not provide satisfactory services for services related to empathy or interpersonal relationships [10]. So to design a strategy, hospitals must focus on 'attractive service quality attributes' to achieve competitive advantage. It is an obligation for each hospital to provide the highest quality services that are classified as a 'Must' category because this is a basic need of the patient. Because service quality gaps are observed for all one-dimensional quality service attributes, hospitals must try to



continue to improve the quality attributes of these services to increase patient satisfaction and reduce the gap between perception and expectation.

## CONCLUSION

10 studies included in this systematic review show the similar key findings. empathy or interpersonal relations becomes a determinant that dominates the increase in patient satisfaction with hospital services. There are several limitations in this study, which only uses search through one data base because of time constraints. As a recommendation for further research, it is necessary to search for the determinants of patient satisfaction with hospital services through several data bases to obtain more information about the determinants of patient satisfaction with hospitals. For hospitals not only perform satisfactorily on the factors of clinical competence and physical appearance so as not to provide satisfactory services for services related to empathy or interpersonal relationships. Therefore, to design a hospital strategy must focus on 'attractive service quality attributes' to achieve competitive advantage.

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