

## The Impact of Dental Satisfaction Questionnaire (DSQ) and Word of Mouth on Patient Satisfaction Educational Dental and Oral Hospital

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**Abstract**

The realization of satisfied patients provides benefits, including harmonious relationships with patients to hospitals, providing a good foundation for patient loyalty and recommending WOM. The general purpose of this survey is to find out the effect of satisfied patients through the dental satisfaction tools approach on the interest in recommending to others at the Unsoed Dental and Oral Education Hospital. This research is an analytic observational study with a cross sectional approach. With a total sample of 106 respondents, where the respondents were RSGMP patients. The research data collection method was carried out by collecting data directly in the field, namely through the questionnaire or questionnaire method where the questionnaire was a Dental Satisfaction Questionnaire, patient satisfaction variables and word of mouth variables. The results of the overall analysis concluded that dental patient satisfaction had a positive effect on RSGMP patient satisfaction and word of mouth had an effect on RSGMP patient satisfaction. Future research is expected to use interview or observation methods other than questionnaires as research instruments so that patient data can be obtained that are outside the sample criteria. Thus the data collected will be more varied.

**Keywords:** DSQ, health services, satisfaction patient, WOM

### Introduction

The performance of the health system is critical to assess because a country's good health is the key to human development and economic growth (Akbar & Pratiwi, 2016). Development in the health sector is a component of national development aimed at achieving a just and prosperous society (Eninurkhatun et al., 2017). According to Indonesia's national health system, health services are the most important factor in achieving and maintaining a healthy lifestyle for the community (Mumu, 2015). The quality of health-care services is a worldwide concern. To meet the increasing needs and demands of patients, the health care industry is undergoing rapid transformation (Akbar & Pratiwi, 2016). Health-care services are shifting from provider-centered to patient-centered, with patient needs being included in the definition of quality (Eninurkhatun et al., 2017).

Health-care providers, specifically hospitals, are complex organizations that are capital-intensive, labor-intensive, technology-intensive, science-intensive, and regulation-intensive. As a result, all aspects of the hospital must work together to provide high-quality health care (Anang et al., 2020). Hospitals play an important strategic role in the health-care system. As a health institution, the hospital is required to provide high-quality, low-cost health care to people at all socioeconomic levels (Lely & Suryati, 2018).

The hospital service paradigm has shifted from social to socio-economic in nature, making it a social business, but efforts are made to achieve a financial surplus through professional management.

Hospitals must provide satisfactory services. Commitment to providing services that result in patient satisfaction is essential for health care providers, including oral health providers (Ibrahim et al., 2017). Dental health and appearance are important factors in determining facial attractiveness and, as a result, play an important role in human social interactions (Kuntoro & Istiono, 2017). Furthermore, because oral disease is a major health problem that causes morbidity, quality oral health services are required to improve the overall quality of life in the community (Hasibuan, 2021). Dental and oral health facilities can provide oral health care. Oral health care providers, in collaboration with dental schools, must constantly strive to strike a balance between patient and student needs. Dental school clinics are also important in promoting oral health.

Furthermore, in a dental school setting, the emphasis on meeting graduation requirements must be balanced with patient satisfaction. Despite the fact that both the caregiver and the patient benefit from their interactions, patient satisfaction is prioritized. In other words, patient-centered academic dental health services provide education and clinical experience (Luo et al., 2018). Patient satisfaction is a multifaceted and complex phenomenon (Wahyani, 2013). Client satisfaction is important as a measure of service quality because it provides information about service providers' success in meeting patient values and expectations; it is especially important in situations where the patient is the highest authority (Ulkhag & Br. Barus, 2017).

Patient satisfaction is regarded as an important service outcome and is one of the primary factors that contribute to improved patient compliance and, ultimately, clinical outcomes (Park et al., 2021). As educated consumers, today's patients have many demands for services and health care options. A satisfaction survey can be used to measure consumer experience (Akbar & Pratiwi, 2016). Patient satisfaction has a close relationship with health service quality factors because consumer satisfaction can be used as an indicator of the quality of health services in hospitals (Lely & Suryati, 2018).

Government hospitals, private hospitals, health centers, medical centers, clinics, joint practices, individual practices, dental and oral hospitals, and teaching hospitals all provide dental health services in Indonesia. People are still hesitant to seek care, despite the fact that there are numerous health care facilities that can provide dental and oral care to the community (Wittayapairoch et al., 2019). Unsoed Dental and Oral Education Hospital is the first dental and oral hospital in Central Java, having opened in 2012 on Jl. Dr. Soeparno (Besides Postgraduate Unsoed). RSGMP Unsoed, in addition to being used for dentistry professional education by dental professional students (co-ass), also serves patients who have dental and oral complaints, both referrals and general ones. RSGMP Unsoed provides integrated dental and oral health services from one field to the next. Patients who visit RSGMP Unsoed will be treated by competent professionals in their fields; additionally, RSGMP Unsoed is backed up by complete and modern dental equipment (Unsoed, 2014).

A hospital's image, especially one that is relatively new, must be improved and maintained. One way to accomplish this is to provide more efficient and effective dental and oral health care. The Integrated Clinic Installation, one of the clinical facilities available at RSGMP Unsoed, provides integrated dental professional education services in accordance with standards in collaboration with the dentistry department. Integration Clinic is a young dentist-staffed outpatient dental clinic. Each case is handled by a young dentist, whose implementation results in ideal dental health services that meet service standards. Basic and limited specialist dental medical services are provided by integrated clinics (Unsoed, 2014).

In addition to fostering a positive relationship between the hospital and the patient and increasing the likelihood that the patient will return for future care, a high level of patient satisfaction can also lead to increased loyalty and positive word of mouth. Researchers have found that satisfied customers are more likely to recommend a business to others (Lubis & Andayani, 2018). A study by (Hasibuan, 2021) found that customers are more likely to spread the word about a positive experience after first ensuring their own satisfaction with the service provided. Researchers conducted an exploratory study to pinpoint the RSGMP gap occurrence.

The problems discovered are with adequate facilities and human resources, but the utilization rate of dental chairs is still low, with the average number of integrated clinic patient visits in 2014 as many as 672 patients per month, 814 patients per month in 2015, and 920 patients per month in 2016. Although the number of patient visits increases from year to year, the increase is insufficient. The criticism and suggestions report via the suggestion box and online send message service facility stated that there were several complaints related to the problem of lack of hygiene facilities, long waiting times and check-in times, and dental pain patients felt that they were not handled optimally. According to the Minister of Health of the Republic of Indonesia's Decree No.129/Menkes/SK/IV/2008 on outpatient treatment, which is 60 minutes from the time the patient registers until they are received/served by a specialist. Some patients continue to wait a long time for service at RSGMP.

The phenomenon of the gap that exists in the field of dentistry necessitates a unique approach. Researchers want to delve deeper into existing problems in order to find solutions. Patient satisfaction can be measured using a reasonably valid research instrument and sound research methods (Akbar & Pratiwi, 2016). The Dental Satisfaction Questionnaire (DSQ) and word-of-mouth instruments were used by the researchers to investigate the phenomenon in RSGMP. The DSQ is made up of components that assess patient satisfaction in the field of dentistry. The DSQ has the advantage of being the only dental satisfaction questionnaire designed to assess patient satisfaction following dental treatment.

This study's DSQ dimensions are access, pain management, and quality. Priya (2011) in Malaysia, Mascarenhas (2001) in the United States, and Balkaran (2014) in India developed the DSQ. Increased satisfaction is a critical factor in the preparation of professionally competent dentists (Priya, 2011). According to the findings of Mascarenhas' (2001) study, there is no difference in patient satisfaction between the two models of dental care delivery. According to the findings of Balkaran's (2014) research, the level of satisfaction with dental care at the University of the West Indies (UWI) dental school is high. There is a lot of literature on patient satisfaction in inpatient units, but there isn't much on patient satisfaction in outpatient clinical services (Sesrianty et al., 2019). As a result, researchers are interested in assessing patient satisfaction in outpatient units using the DSQ and word of mouth instruments in order to offer suggestions to others at RSGMP Unsoed Purwokerto.

## **Literature Review and Hypotheses**

### **Service Quality**

Products, services, people, processes, and the surrounding environment all having high quality is a dynamic state known as quality (Akbar & Pratiwi, 2016). According to the Winston Dictionary, quality is the degree of perfection with which something is observed. Furthermore, quality is defined as conformity to predetermined standards (Lubis & Andayani, 2018). Quality can be defined as a condition in which the results of products and services achieve a level of perfection that is in accordance with customer needs, applicable standards, and goals.

An organization creates products, which can be both goods and services. Services are defined as such because they generate services (Mumu, 2015). Kotler (2017), a service is any tangible or non-tangible thing that one party can do for another (Lubis & Andayani, 2018). The term "service" is used to describe any kind of work done or benefit bestowed by one party on another that is not tangible or does not give rise to property rights (Gunawan et al., 2018). The end result of complex interactions and dependencies between various components or aspects of the hospital as a system is hospital service quality.

The degree to which good professional standards are met in patient care and the realization of expected final results in care, diagnosis, action, and technical problem solving

is referred to as health care quality. Understanding the concept of service quality is linked to patient satisfaction, which is not always the same as quality service (Soumokil et al., 2021).

Yacobalis (2001) stated the same thing, that good health services must meet the requirements, be available and affordable, appropriate to the needs, appropriate resources, appropriate professional standards/professional ethics, reasonable and safe, and of satisfactory quality for the patients served. The basic definition of good health services is that they are available and affordable, appropriate to the needs, appropriate to the purpose, appropriate to the resources, reasonable and safe, and satisfying for the patients served. The complexity of the problem of hospital service quality stems not only from limited resources and the environment, but also from differences in perceptions among service users, health workers, and the government or funders about the magnitude of hospital service quality. The quality of hospital services can be determined by a number of influential factors, both direct and indirect.

### **Dental Satisfaction Questionnaire (DSQ)**

The Rand Corporation created the Dental Satisfaction Questionnaire (DSQ). The DSQ is a nineteen-item questionnaire with a 5-point Likert scale ranging from "strongly agree," "agree," "undecided," "disagree," and "strongly disagree" (Macarenhas, 2001). The Dental Satisfaction Questionnaire (DSQ) is a self-designed instrument with nineteen questions for people aged 14 and up. DSQ takes about 5 minutes to complete on average (Priya, 2011).

Treatments that affect attitudes toward service providers and services provided are included in the dimension of dental care satisfaction. Many researchers have used a variety of techniques to uncover this dimension. Some researchers use various satisfaction items in their literature reviews or that they develop for a specific study, and they empirically study the general constructs that underpin the various items. Not all researchers use the same label to refer to measures with similar content; similarly, similarity in dimensions and item content is not always obvious. A taxonomy of dental satisfaction was used to reduce confusion, as has been used to study satisfaction measures with medical care.

The initial dimensions created were technical, interpersonal, accessible, financially accessible, effective, continuous, facilities, general satisfaction, and pain management (Ware, 1982). The DSQ is the only dental satisfaction questionnaire developed to measure major dental satisfaction constructs, according to a review of the literature.

The DSQ's validity and reliability have been tested and reported (Gunawan et al., 2018). According to the literature, satisfaction with dental care is a multidimensional concept. This study's DSQ dimensions are access, pain management, and quality. Priya (2011) in Malaysia, Mascarenhas (2001) in the United States, and Balkaran (2014) in India developed the DSQ dimension.

### **Word Of Mouth (WOM)**

One of the determining factors for the success of a marketing program is promotion. Regardless of the quality of a product or service, consumers will never buy it if they have never heard of it and are unsure that it will be useful. The Word of Mouth system is one of the most effective promotional tools (Soumokil et al., 2021). WOM, according to (Joesyiana, 2018), is a casual exchange of information about a company's goods or services between a person who is not affiliated with the business and the person who is receiving the information.

WOM gives customers a reason to talk about your products and services, as well as making those conversations more likely. WOM is the art and science of establishing good, mutually beneficial communication between customers and between customers and manufacturers. Customers who have a strong opinion of a service are more vocal about their

experiences than mediocre customers, and dissatisfied customers will speak much louder than satisfied customers (Prastyo et al., 2018). According to (Sandy et al., 2022), the measurement of WOM indicators, which is adjusted to the object of research, includes, among other things, the desire to recommend, the frequency of communication made regarding quality, the desire to tell positive things, and the willingness to invite others.

According to (Joesyiana, 2018), in the WOM business, customer satisfaction is critical. According to a study conducted by the US Office of Consumer Affairs, word-of-mouth has a significant impact on customer ratings. According to the study, one dissatisfied customer will result in nine other potential customers who will cause dissatisfaction. Meanwhile, happy customers will only recommend five other potential customers. Today, providing high-quality services is regarded as an essential strategy for a company's success and survival (Leonnard & Susilowati, 2018).

The use of quality management in the service industry is a must if you want to compete in both the domestic and global markets (Barney, 1991). This is due to the fact that service excellence can improve customer satisfaction, market share, and profitability. Managers' focus today is on understanding the impact of service quality on profits and other financial results in the company (Fornel, 1992).

### **Patient Satisfaction**

Satisfaction is a feeling that arises after evaluating the product's experience (Ulkhag & Br. Barus, 2017). Satisfaction is a person's pleasure resulting from a comparison of the pleasure of an activity and a product to his expectations (Anang et al., 2020). Satisfaction is a person's feeling of pleasure or disappointment as a result of comparing their perceptions of the performance of a product or service to their expectations. When the performance results of a product or service fall short of expectations, customers are disappointed or dissatisfied. Customers will be satisfied if the performance of a product or service meets their expectations (Park et al., 2021).

Patients are biopsychosocial, socioeconomic, and cultural beings. Patients require the fulfillment of biological (health), psychological (satisfaction), socioeconomic (board, clothing, food, and social affiliation), and cultural needs, desires, and expectations (Akbar & Pratiwi, 2016). Understanding patient satisfaction is a person's pleasure or disappointment that results from comparing his perceptions or impressions of a product's performance or results to his expectations (Hasibuan, 2021). The outcome of health services is patient satisfaction. Patient satisfaction is thus one of the goals of improving health-care quality. Patient satisfaction is the level of feeling that a patient has as a result of the performance of health services obtained after comparing it to what he expects (Soumokil et al., 2021).

Like the multifaceted nature of the human experience, patient satisfaction is an intangible concept that is hard to measure, prone to change, and affected by a wide range of variables. Subjectivity can be reduced and even eliminated if a large number of people share the same viewpoint. Patient satisfaction can be measured using a reasonably valid research instrument and sound research methods (Mumu, 2015). The hospital's services can be divided into two categories: medical and non-medical. The medical aspect includes its supports, which include both human resources in quantity and quality, as well as equipment to support the need for disease diagnosis or treatment. Non-medical issues include information services, administration, finance, nutrition, pharmacies, hygiene, security, and the condition of the hospital environment. Doctors should be aware that the attitudes, skills, and knowledge displayed by health workers have just as much of an impact on a patient's recovery as the medications they prescribe (Ibrahim et al., 2017).

Relationships between doctors and patients, the ease of receiving care, the availability of options, the quality of care provided, the efficiency with which it is delivered, and the



security of the actions taken all fall under the first category of patient satisfaction. The second factor is how happy people are with various aspects of the health care they receive, including access, equity, cost-effectiveness, efficiency, and quality. (Wahyani, 2013).

### **The Access Factor and Patient Satisfaction**

Satisfaction with dental and oral health services will be good if the service is in accordance with what is expected and desired by the patient. Satisfaction with dental and oral health services can be assessed using a research instrument, namely the Dental Satisfaction Questionnaire (Priya, 2011). The measure of satisfaction on the DSQ which consists of components has been carried out by various researchers. Research conducted by Balkaran (2014) reviewed various measures to assess patient satisfaction with dental care, the components used to assess dentists are overall satisfaction, pain management, and access, namely the DSQ. Priya (2011) conducted research in Malaysia to measure patient satisfaction using the DSQ which consists of components namely pain management, access, and quality. The results of the study stated that this component has a positive value in measuring patient satisfaction.

In order to understand the various factors that influence patient satisfaction, the researchers explored the various dimensions of perceived service quality, the measures as meaningful and important of patient perceptions of quality of health. Research on patient satisfaction in both developing and developed countries has many similarities and several unique variables and attributes that influence overall patient satisfaction (Al-Abri, 2014). The results of Tamara's research (2017), that patients are dissatisfied with long waiting times. The fast waiting time for health services will make patients satisfied with the service, and the length of time for health services will make patients dissatisfied with the service (Utami, 2015).

*H1: The access factor has a positive effect on the satisfaction of patients who receive health services*

### **Pain management factors and patient satisfaction**

Kawamura (1997), conducted a study on dental students in Australia, that students did not go to the dentist until their toothache was lower. In another study, more than half of dental students reported that they put off going to the dentist until they had a toothache (Kawamura, 2001 and Priya, 2011). Thus pain management in the dental clinic is also a very important part of dental care. The results of Tamara's research (2017), that patients are satisfied with dental and oral health service workers who always prevent pain from occurring to patients during treatment.

*H2: Pain management factors have a positive effect on patient satisfaction who receive health services*

### **The quality factor has a positive effect on patient satisfaction**

The relationship between service quality and satisfaction is widely documented in the marketing literature, the relationship is theoretically and empirically positive as has been researched by Wijayanti (2008). Companies must improve the quality of service to customers, where the higher the quality of service provided will create a tendency for consumer behavior that benefits the company. Vice versa, if consumers do not get good service and feel dissatisfied, it will lead to unfavorable consumer behavior tendencies that will harm the company (Zeithaml, 2002). The results of Tamara's research (2017), patients were satisfied with the polite attitude of dental and oral health service workers.

*H3: The quality factor has a positive effect on the satisfaction of patients who receive health services*

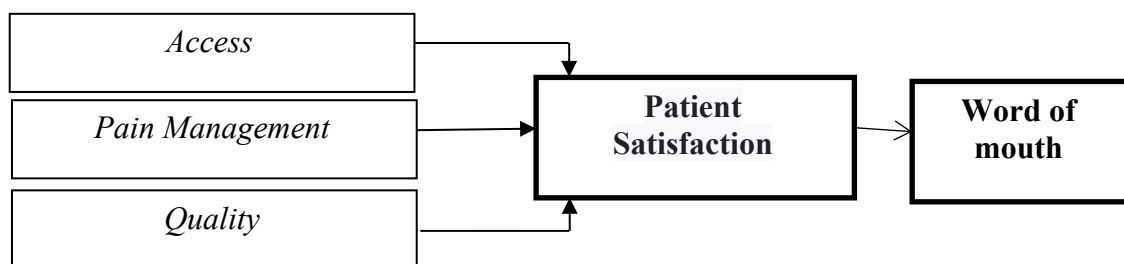
### Patient satisfaction factor and the desire to recommend to others to use the services

According to Lovelock (2010), shows that to a certain extent and content, WOM has a very close relationship with the level of satisfaction generated. One of the benefits of customer satisfaction for the company is that it allows the creation of word of mouth (WOM) recommendations which are very profitable for the company in the long run so that more and more people buy and use the product or service (Agustina, 2011). Based on research conducted by Ardani (2011), Setyawati (2009), Rahmawati (2014), and Shafiq (2013) stated that customer satisfaction has a significant influence on WOM.

Customer satisfaction can affect performance outcomes, including loyalty and word-of-mouth communication or referring interest (Thurau, 2003). Babin (2005), states that customer satisfaction has a positive effect on WOM interest. Customer satisfaction has a strong positive relationship with WOM (Ranaweera, 2003 and Brown, 2005).

**H4:** *The patient satisfaction factor has a positive effect on the desire to recommend to others to use the services of RSGM Unsoed.*

The framework used in this study is described in Figure 1 as follows.



**Figure 1.** Framework Research

### Research Method

This is an observational analytic study with a cross-sectional approach. A cross sectional study is one in which measurements or observations are made at the same time (once) between risk and exposure (Nursalam, 2003). This study was carried out at the Purwokerto Teaching Dental and Oral Hospital (RSGMP). The research site was chosen because RSGMP Purwokerto undoubtedly requires an evaluation of improving patient service quality. The research time begins with the preparation stage, followed by data collection and data processing.

The preparatory stage includes the preparation of research instruments as well as the research permit process. Data collection in the form of questionnaires is done during outpatient service hours, after the patient has received health services, and data processing is done after the questionnaire answers are collected.

Patients treated at the Educational Dental and Oral Hospital Unsoed Purwokerto were the subjects of this study. The sample is a subset of the population in terms of size and characteristics (Sugiyono, 2012). The sample was chosen using the consecutive sampling method, and several respondent criteria, namely inclusion and exclusion criteria, had to be met.

Sampling occurred immediately after the patient completed dental treatment at the RSGMP Unsoed integration clinic. The data used in this study is primary data. The data is quantitative data in the form of values or scores for the responses given by respondents to the questionnaire's questions. The research data collection method was carried out directly in the field, namely through the questionnaire method. Dental Satisfaction Questionnaire, patient satisfaction and word of mouth were all included in the questionnaire. The questionnaire

contains 19 questions based on those distributed to respondents where the respondents in this study were dental patients.

**Table 1. Operational Definition**

No	Variable	Operational Definition	Scale
1	Patient satisfaction	Patient satisfaction is the level of patient feelings after comparing the nursing services received with their expectations	1. Strongly agree 2. Agree 3. Undecided 4. Disagree 5. Strongly disagree
2	<i>Dental Satisfaction Questionnaire (DSQ)</i>	Dimension DSQ: <i>access, pain management, dan quality.</i>	1. Strongly agree 2. Agree 3. Undecided 4. Disagree 5. Strongly disagree
3	<i>Word of Mouth</i>	Interest to refer to others after getting service.	1. Strongly agree 2. Agree 3. Undecided 4. Disagree 5. Strongly disagree

## Results and Discussion

### Overview of Respondents by Gender

Determination of the general description based on gender on the identity of the respondent is based on patients who come to the RSGMP from all levels - male and female, so it is considered that the characteristics of the respondent based on gender are important to include in determining the identity of the respondent. Based on the research results, an overview of the gender of the respondents was obtained which can be seen in Table 2 as follows.

**Table 2. Respondents by Gender**

Gender	Presentage (%)
Male	35.8
Female	64.2
Total	100.0

Table 2 shows that there are more female respondents than male respondents, namely 64.2%. This shows that the majority of RSGMP patients are female. This kind of thing gives an indication that the female sex pays more attention to dental care, especially fillings and takes great care of dental and oral health

### Normality Test

The normality test is a test conducted to find out whether the sample under study is normally distributed or not. For significance purposes, the variables follow a multivariate normal distribution. The method used is Kolmogorov-Smirnov analysis, where if the value is asymptotic significant (2-tailed)  $> \alpha$ , then it can be said that the data is normally distributed (Suliyanto, 2005).

Based on the output results above, it can be seen that the value of Sig. (2-tailed) of 0.845, from these results that the value is  $0.845 > 0.05$ , which means that the value of  $H_0$  cannot be rejected. This means that the standardized residual values are declared to be normally distributed.



**Tabel 3.** Normality Test

	Standardized Residual
N	106
Kolmogorov-Smirnov Z	0.614
Asymp. Sig. (2-tailed)	0.845

**Multicollinearity Test**

Testing for the presence or absence of multicollinearity symptoms is carried out by taking into account the value of the correlation matrix generated during data processing as well as the VIF (Variance Inflation Factor) value and its tolerance. If the value of the correlation matrix is not greater than 0.5, it can be said that the data to be analyzed is free from multicollinearity. Then if the VIF value is below 10 and the tolerance value is close to 1, then it is concluded that the regression model does not have multicollinearity (Singgih, 2000).

**Table 4.** Multicollinearity Test

Model	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	6.436	2.179		2.953	0.004		
Akses	0.162	0.044	0.330	3.647	0.000	0.996	1.004
Pain	-0.119	0.106	-0.112	-1.118	0.266	0.816	1.225
Quality	-0.036	0.056	-0.063	-0.639	0.524	0.832	1.202
Kepuasan	0.153	0.075	0.190	2.024	0.046	0.928	1.078

The akses variable has a VIF value of 1.004. The pain variable has a VIF value of 1.225. The quality variable has a VIF value of 1.202. The satisfaction variable has a VIF value of 1.078. From the table above, it can be seen that the VIF values of all variables are not greater than 10, meaning that there are no symptoms of multicollinearity.

**Heteroscedasticity Test**

The heteroscedasticity test was carried out to test whether in a regression model there is an inequality of residual variance from one observation to another, so it is called Heteroscedasticity (Santoso, 2000). One way to detect heteroscedasticity is to use the Park Gleyser method, heteroscedasticity symptoms will be indicated by the regression coefficient of each independent variable on the absolute residual value (e), if the probability value is greater than the alpha value (0.05), then it can be ascertained the model does not contain elements of heteroscedasticity. It is said that there is no heteroscedasticity if:  $t\text{-count} < t\text{-table}$  or  $\text{Sig.} > \alpha$

**Table 5.** Heteroscedasticity Test

Model	B	Std. Error	Beta	t	Sig.
(Constant)	-0.058	1.336		-0.044	0.965
Akses	-0.002	0.027	-0.007	-0.076	0.940
Pain	0.007	0.065	0.011	0.106	0.916
Quality	0.038	0.034	0.120	1.120	0.265
Kepuasan	0.068	0.046	0.150	1.476	0.143

Based on Table 5, the significant value is already greater than the alpha value (0.05). Akses variable  $0.940 > 0.05$ , pain variable  $0.916 > 0.05$ , quality variable  $0.265 > 0.05$  and satisfaction variable  $0.143 > 0.05$ , so that this research model does not contain elements of heteroscedasticity.

### F Test

From the results of the F test in this study, the calculated F value was 5.411 with a significance value (P value) of 0.001. With a significance level of 95% ( $\alpha = 0.05$ ). Significance figure (P value) of 0.001 < 0.05. Or by looking at the value of F, the condition is accepted if F Count > from F Table. It can be seen that in the calculation the F Count value is 5.411 and the F Table value is 2.461 which means F Count > from F Table or 5.411 > 2.461. On the basis of this comparison, H<sub>0</sub> is rejected or it means that the access, pain, quality and satisfaction variables have a significant influence on the woman variable together.

**Tabel 6.** F Test Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	130.502	4	32.625	5.411	0.001
Residual	609.007	101	6.030		
Total	739.508	105			

### Test Multiple Linear Regression

Table 7 below shows the regression coefficients obtained from the regression results with the SPSS program.

**Table 7.** Test Multiple Linear Regression

Variable	B	Std Error	Beta	t	Sig.
Constanta	18.930	2.161	-	8.759	0.000
Access	0.531	0.112	0.241	2.143	0.045
Pain	0.427	0.132	0.236	2.273	0.043
Quality	0.417	0.135	0.271	2.513	0.031

From Table 7 above, it is obtained the multiple linear regression:

$$Y = 18,930 + 0,531 X1 + 0,427 X2 + 0,417 X3 + e$$

The above equation can be explained as follows:

- The constant is 18.930, meaning that if Access (X1), pain management (X2) and quality (X3) are 0, then satisfaction is 18.930 units.
- The regression coefficient of the Access variable (X1) is 0.531 units, meaning that if the other variables have a fixed value and Access (X1) increases by one unit, satisfaction will increase by 0.531 units. The coefficient is positive, meaning that there is a positive relationship between access and satisfaction, the higher access, the greater satisfaction.
- The regression coefficient of the Pain management variable (X2) is 0.427 units, meaning that if the other variables have a fixed value and Pain management (X2) increases by one unit, satisfaction will increase by 0.427 units. The coefficient is positive, meaning that there is a positive relationship between pain management and satisfaction, the higher the pain management, the greater the satisfaction.
- The regression coefficient of the Quality variable (X3) is 0.417 units, meaning that if the other variables have a fixed value and Quality (X3) increases by one unit, satisfaction will increase by 0.417 units. The coefficient is positive, meaning that there is a positive relationship between quality and satisfaction, the higher the quality, the higher the satisfaction.

From the results of the regression using the SPSS program, the regression coefficient of satisfaction with WOM can be seen in Table 8. below:

**Table 8.** Multiple linear regression of satisfaction with WOM

Variable	B	Std Error	Beta	t	Sig.
Constanta	7.718	1.114	-	6.928	0.000
Quality	0.176	0.077	0.219	2.287	0.024

From Table 8 above, it is obtained the multiple linear regression:

$$Y1 = 7.718 + 0.176 Y2$$

The above equation can be explained as follows:

- a. The constant is 7.718 units, meaning that if the Satisfaction value is 0.000 then the WOM value is 7.718 units.
- b. The regression coefficient of the Satisfaction variable (X1) is 0.176 units, meaning that if the other variables have a fixed value and Satisfaction (X1) increases by one unit, WOM will increase by 0.176 units. The coefficient is positive, meaning that there is a positive relationship between satisfaction and WOM, the higher the satisfaction, the higher the WOM.

### **H1: There is an effect of access on satisfaction**

Patients are satisfied with the service regarding the doctor's schedule which is already good and if the patient comes back to the clinic, he is treated with the same dentist (Akbar et al., 2018). This indicates the distance traveled to reach health care facilities if it is not comparable to the services provided will lead to patient dissatisfaction (Chang, 2010). The closer people live to the clinic, the greater the visits to the health center, the lower the visit rate to the health service center (Hasibuan, 2021). In the Access variable with a significance level of 95% ( $\alpha = 0.05$ ). The significance value (P Value) of the Access variable is  $0.045 < 0.05$ . On the basis of this comparison,  $H_0$  is rejected or it means that the Access variable has a significant influence on the satisfaction variable. The results of the open-ended questionnaire indicated that the reason patients came to RSGMP UNSOED was to examine and treat problematic teeth. In addition, patients feel that RSGMP is well known and is the closest dental and oral health facility from where they live, which has complete facilities so that they can handle all their dental care needs.

### **H2: Pain management factors have a positive effect on patient satisfaction.**

According to Parasuraman (1997), if a patient enters the hospital with a series of hopes and desires and in fact his experience while getting service at the hospital is better as expected, he will be satisfied. As a result, hospitals must place a premium on the needs of the people they serve (be client oriented), with patients taking the top spot because they have the most to gain from satisfied customers. The focus of improving management services for handling pain reduction in patients is an implication of action to improve service quality and increase patient satisfaction (Oliver, 1997). Patients are satisfied with dental and oral health service workers who always prevent pain in patients during treatment (Chen, 2001). In pain management variable with a significance level of 95% ( $\alpha = 0.05$ ). The significant figure (P Value) on the pain variable is  $0.043 < 0.05$ . On the basis of this comparison,  $H_0$  is rejected or it means that the pain management variable has a significant influence on the satisfaction variable. The results of an open-ended questionnaire conducted by dentists in dealing with pain were conducting an examination, giving medicine and performing treatment. In addition, patients at the RSGM are also always given an explanation about the treatment they will receive and provide education about dental and oral health. This can affect patient satisfaction.

### **H3: There is an effect of quality on satisfaction.**

The doctor's attention can be seen from his concern for every complaint of patients and their families, where the quality of service is a determinant of customer satisfaction. Dimensions of service quality which include the friendliness of employees and their ability to confidence

and generate trust, courtesy and trustworthiness are closely related to customer satisfaction. (Zeithmal, 1988). Chen (2005) states that when the service received by customers exceeds their expectations, the service quality is assumed to be the ideal quality. On the other hand, if the patient receives less service than expected, then the quality of service is considered poor. Thus, good service quality lies in the strength of service providers to consistently meet customer expectations. In variable quality with a significance level of 95% ( $\alpha = 0.05$ ). The significant figure (P Value) on the quality variable is  $0.031 < 0.05$ . On the basis of this comparison,  $H_0$  is rejected or it means that the quality variable has a significant influence on the satisfaction variable. The results of the open-ended question questionnaire according to the patient about the quality of service at RSGMP are good, supported by the quality of tools, facilities and infrastructure. What is considered to make patients satisfied is the service of a dentist who is polite and friendly. Supported by a comfortable waiting room makes patients more calm waiting. Dentists are also considered thorough and thorough in examining patients with good results and according to patient expectations.

#### **H4: There is an effect of satisfaction on WOM.**

This research also strengthens the output of the research that has been done by Manickas. (1997), Malthouse (2003), and Wang (2006) who found customer satisfaction had a positive effect on WOM communication. In the satisfaction variable with a significance level of 95% ( $\alpha = 0.05$ ). The significance value (P Value) in the satisfaction variable is  $0.024 < 0.05$ . On the basis of this comparison,  $H_0$  is rejected or it means that the satisfaction variable has a significant effect on the WOM variable. Patients will recommend to others after having certain experiences, especially about the services provided by RSGMP UNSOED. A positive experience with the services provided will give a positive response, so the patient will tell the positive experience to others. Oliver (1997), who have proven that care services have a positive influence on patient satisfaction which causes patients' interest in returning to treatment and recommends hospital services to friends and family. The results of this study also support the theory put forward by Yu-Te (2011), that satisfied customers tend to recommend service providers to their families and relatives. If patients feel satisfaction, it will increase their desire to do WOM, therefore RSGMP must be consistent in providing satisfaction for patients.

## **Conclusion**

From the results of the overall analysis, it was found that the access factor had a positive effect on satisfied patients who received medical services at the Integrated Clinic of RSGMP Unsoed, and the pain management factor had a positive effect on patient satisfaction. Medical services in medical services at the integrated polyclinic of RSGMP Unsoed, the quality factor has a positive effect on satisfaction of patients who receive health services at the integration clinic of RSGMP Unsoed, patient satisfaction factors have a positive effect on the desire to recommend others to use the services of RSGMP Unsoed. Further research is expected to use interview or observation methods other than questionnaires as research instruments so that data on patients who are outside the sample criteria can be obtained. Thus the data collected will be more varied.

## **References**

- Akbar, F. H., & Pratiwi, R. (2016). Patient satisfaction against the quality of dental health services at dental polyclinic of Tenriawaru General Hospital in Bone Regency. *Journal of Dentomaxil lofacial Science*, 1(3), 177. <https://doi.org/10.15562/jdmfs.v1i3.313>

- Akbar, M. A., Khotimah, K., Pasolo, F., & Labo, I. A. (2019, August). Electronic Word Of Mouth (E-Wom) Pengaruhnya Terhadap Purchase Intention Melalui Brand Image Pada Smartphone Xiaomi (Studi Pada Mahasiswa Di Kota Jayapura). In *Prosiding Industrial Research Workshop and National Seminar* (Vol. 10, No. 1, pp. 938-954).
- Anang, A., Haryanti, F., & Meliala, A. M. (2020). Quality of dental care services and satisfaction of patients visiting dental treatment center of Kahuripan public health center, Tawang sub district, Tasikmalaya city. *Majalah Kedokteran Gigi Indonesia*, 5 (2), 62. <https://doi.org/10.22146/majkedgiind.41019>
- Astuti, D., & Ernawati, S. (2020). Strategi Promosi dan Word of Mouth dalam Upaya Peningkatan Keputusan Pembelian Produk Tenun. *Distribusi - Journal of Management and Business*, 8(2), 225–238. <https://doi.org/10.29303/distribusi.v8i2.126>
- Damayanti, Y. (2020). Kajian Literatur Efektivitas Electronic Word of Mouth (E-Wom) Dalam Meningkatkan Minat Beli Konsumen di Sosial Media. *Jurnal Manajemen dan Inovasi (MANOVA)*, 2(1), 31–45. <https://doi.org/10.15642/manova.v2i1.354>
- Eninurkhayatun, B., Suryoputro, A., & Fatmasari, E. Y. (2017). Analisis Tingkat Kepuasan Pasien terhadap Kualitas Pelayanan Rawat Jalan di Puskesmas Duren dan Puskesmas Bergas Kabupaten Semarang Tahun 2017. *JURNAL KESEHATAN MASYARAKAT*, 5, 10.
- Fitriana, A., Setyanugraha, R. S., & Hasibuan, R. R. (2021). Pengelolaan Keuangan Keluarga dalam Upaya Meningkatkan Produktivitas Masyarakat yang Mandiri Kelurahan Teluk Kabupaten Banyumas. *Perwira Journal of Community Development*, 1(1), 37-41.
- Fitriana, A., Hasibuan, R. R., Tyas, K. Z., & Supriatin, D. (2022). Pendampingan Pencatatan Keuangan Sederhana Bagi Pelaku UMKM Bidang Pariwisata di Desa Petahunan, Kab. Banyumas. *PaKMas: Jurnal Pengabdian Kepada Masyarakat*, 2(1), 17-22.
- Gunawan, S., Keni, K., & Risnawaty, W. (2018). Pengukuran Kepuasan Pasien Rawat-Inap Rumah Sakit Umum Daerah Tarakan Jakarta. *Jurnal Bakti Masyarakat Indonesia*, 1(1).
- Hasibuan, R. R., & Pratiwi, A. R. (2021). Antecedent Repurchase Intention Aplikasi Shopee dengan Kepuasan sebagai Variabel Mediasi di Kabupaten Banyumas. *Tirtayasa Ekonomika*, 16(2), 253-265.
- Hasibuan, R. R., Setyanugraha, R. S., Amelia, S. R., Arofah, A. A., & Pratiwi, A. R. (2021). Penyuluhan Pemanfaatan Air Nira Pohon Kelapa Menjadi Gula Semut untuk Meningkatkan Perkonomian Desa Kuripan Kabupaten Cilacap. *ETHOS: Jurnal Penelitian dan Pengabdian kepada Masyarakat*, 9(1), 107-111.
- Hasibuan, R. R. (2021). Analisis Pengaruh Kualitas Produk, Promosi, dan Tenaga Penjual terhadap Keputusan Pembelian Produk Kosmetik Import Oriflame di Spo 1507. *JURNAL EKONOMI*, 11(2), 1-12.



- Hasibuan, R. R., & Setyanugraha, R. S. (2021). Impact of the Company's Service Quality Dimension on Customer Customer Satisfaction at Imalez Multy Corp Cooperative. *Perwira International Journal of Economics & Business*, 1(1), 19-28.
- Hasibuan, R. R., Setyanugraha, S., & Priambodo, A. (2019). Uji Kelayakan Bisnis dan Strategi Pemasaran Peningkatan Daya Jual Produk UMKM Gula Merah di Kecamatan Kesugihan. *Jurnal EBI*, 1(1).
- Ibrahim, N. B., Enn, N. R., & Husein, A. (2017). Patient's perceived Satisfaction towards Dental Treatment provided by Undergraduate Students. *Madridge Journal of Dentistry and Oral Surgery*, 2(2), 59–64. <https://doi.org/10.18689/mjdl-1000115>
- Joesyiana, K. (2018). Pengaruh word of mouth terhadap keputusan pembelian konsumen pada media online shop shopee di pekanbaru. *Jurnal valuta*, 4(1), 71-85.
- Kuntoro, W., & Istiono, W. (2017). Kepuasan Pasien Terhadap Kualitas Pelayanan di Tempat Pendaftaran Pasien Rawat Jalan Puskesmas Kretek Bantul Yogyakarta. *Jurnal Kesehatan Vokasional*, 2(1), 140. <https://doi.org/10.22146/jkesvo.30327>
- Lely, M., & Suryati, T. (2018). Persepsi Pasien Rawat Jalan terhadap Kualitas Pelayanan di Rumah Sakit. *Buletin Penelitian Kesehatan*, 46(4). <https://doi.org/10.22435/bpk.v46i4.33>
- Leonnard, L., & Susilowati, E. (2018). Electronic Word of Mouth (E-Wom) of Transportation Application Consumers in Indonesia: Which Factors That Are Matter. *Esensi: Jurnal Bisnis Dan Manajemen*, 8(1). <https://doi.org/10.15408/ess.v8i1.6708>
- Lubis, A. S., & Andayani, N. R. (2018). Pengaruh Kualitas Pelayanan (Service Quality) terhadap Kepuasan Pelanggan PT Sucofindo Batam. *JOURNAL OF APPLIED BUSINESS ADMINISTRATION*, 1(2), 232–243. <https://doi.org/10.30871/jaba.v1i2.619>
- Luo, J. Y. N., Liu, P. P., & Wong, M. C. M. (2018). Patients' satisfaction with dental care: A qualitative study to develop a satisfaction instrument. *BMC Oral Health*, 18(1), 15. <https://doi.org/10.1186/s12903-018-0477-7>
- Mumu, L. J. (2015). Analisis faktor-faktor yang berhubungan dengan kepuasan pasien di Poliklinik Penyakit Dalam RSUP Prof. Dr. RD Kandou Manado. *JIKMU*, 5(4).
- Park, S., Kim, H.-K., Choi, M., & Lee, M. (2021). Factors affecting revisit intention for medical services at dental clinics. *PLOS ONE*, 16(5), e0250546. <https://doi.org/10.1371/journal.pone.0250546>
- Prastyo, N. A., Suharto, A., & Tyas, W. M. (2018). Pengaruh E-Wom (Electronic Word Of Mouth) dan Harga Terhadap Minat Beli Pada Online Shop. *Fakultas Ekonomi Universitas Muhammadiyah Jember*.

- Rahmadi, R., Soolany, C., & Pratama, A. R. (2018). Penerapan Manajemen Strategi Pemasaran untuk Meningkatkan Daya Jual Produk UMKM Gula Merah di Kabupaten Cilacap. *JTI-UNUGHA (Jurnal Teknologi Industri-UNUGHA)*, 2(2).
- Sandy, N., Juliawati, M., & Andayani, L. H. (2022). Patient Satisfaction Level Concerning Dentistry Services during the COVID-19 Pandemic. *e-GiGi*, 10(1), 88. <https://doi.org/10.35790/eg.v10i1.39018>
- Sesrianty, V., Machmud, R., & Yeni, F. (2019). Analisa Kepuasan Pasien Terhadap Mutu Pelayanan Keperawatan. *JURNAL KESEHATAN PERINTIS (Perintis's Health Journal)*, 6(2), 116–126. <https://doi.org/10.33653/jkp.v6i2.317>
- Setyanugraha, R. S., Fitriana, A., & Hasibuan, R. R. (2021). Festival Wisata Online Sebagai Bentuk Komunikasi Pemasaran Dan Peningkatan Kinerja Keuangan UMKM Di Masa Pandemi Covid-19. *AGUNA: Jurnal Ilmu Komunikasi*, 2(2), 54-62.
- Setyanugraha, S., & Hasibuan, R. R. (2020). ANTESEDEN LOYALITAS KONSUMEN DARI PEMBERIAN LAYANAN PRODUK INTERNET PT. LAXO. *Jurnal Ekonomi Manajemen*, 6(1), 21-30.
- Soumokil, Y., Syafar, M., & Yusuf, A. (2021). Analisis Kepuasan Pasien Di Rumah Sakit Umum Daerah Piru. *Jurnal Ilmiah Kesehatan Sandi Husada*, 10(2), 543–551. <https://doi.org/10.35816/jiskh.v10i2.645>
- Suleman, D., Febriyantoro, M. T., Fadly, R., Napitupulu, R. L., Safria, D., & Hasibuan, R. R. (2022). Perceptions On Halal Labels Impact On Purchase Decisions With Brand Image As Intervening Variables: A Consumer Study Of Solaria Restaurants In Jakarta. *International Journal of Social and Management Studies*, 3(6), 58-63.
- Suwono, S., & Reza Rahmadi Hasibuan. (2022). Total Quality Management (TQM) Terhadap Kinerja Keuangan Dengan Kualitas Kerja Sebagai Variabel Mediasi Pada Perusahaan Manufaktur. *Jurnal E-Bis*, 6(2), 606-619. <https://doi.org/10.37339/e-bis.v6i2.1019>
- Ulkhaq, M. M., & Br. Barus, M. P. (2017). Analisis Kepuasan Pelanggan dengan Menggunakan SERVQUAL: Studi Kasus Layanan IndiHome PT. Telekomunikasi Indonesia, Tbk, Regional 1 Sumatera. *Jurnal Sistem dan Manajemen Industri*, 1(2), 61. <https://doi.org/10.30656/jsmi.v1i2.365>
- Wahyani, W. (2013). Penerapan metode service quality untuk menganalisis kepuasan pelanggan. *Institut Teknologi Adhi Tama Surabaya*.
- Wittayapairoch, J., Punchai, S., Jenwitheesuk, K., Chotmongkol, V., Sawanyawisuth, K., & Jenwitheesuk, K. (2019). Factors associated with patient satisfaction in laparoscopic adrenalectomy. *Heliyon*, 5(6), e01909. <https://doi.org/10.1016/j.heliyon.2019.e01909>