

The Influence of Quality of Dental Health Services on Trust in West Sulawesi Province, Indonesia

Research Article

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Abstract

Purpose: To evaluate patient confidence in the quality of community dental and oral health services from various dimension.**Materials and Methods:** This research was conducted in Polewali Mandar Regency in 2019 and used a pilot path finder design. The subjects consisted of 458 participants. Data was collected using a questionnaire which had been design in accordance with this survey. The questionnaire included 67 questions with responses in the form of bad, poor, moderate, good, very good. Questions about confidence in dental and oral health services were grouped into four dimensions, namely the dimensions of ability, kindness, integrity, and confidence. Confidence was analyzed using the F-test and multiple regression.**Results:** Service quality dimension which included dimension of registration, doctors, and pharmacy had an influence on community confidence with a P value < 0,05.**Conclusion:** The quality of dental and oral health services in Wonomulyo sub-district and Bulo sub-district, Polewali Mandar Regency, had a significant influence on community confidence.**Keywords:** Community Confidence; Quality of Health Services; Dental Health Service.

Introduction

Law Number 36 Year 2009 concerning public health states that health service facilities are a tool and place that used to carry out health service efforts which include promotive, preventive, curative, and rehabilitative activities that conducted by the central government, regional governments, and the community [1, 2].

The Minister of Health Regulation No. 4 of 2018 Chapter II Article 2, paragraph 1a states that every hospital has an obligation to provide true information about hospital services to the public, and paragraph 1 b, states that every hospital has an obligation to provide safe and excellent health services, anti-discrimination, and effective, by prioritizing patients, in accordance with hospital service standards. In Indonesia, several international-standard-hospitals with various sophisticated facilities have been established. However, the services provided by hospitals in Indonesia are still lacking compared to services provided by hospitals abroad. Hospitals in America have adopted a market driven struc-

ture, which is centered on patients to provide health care [3-5].

All hospitals need to measure, monitor and improve the quality of health services in order to survive and reach the millennium development goals. Under such circumstances, hospital managers place a major emphasis on as many patients as possible and make loyal customers, by recognizing their expectations and trying to respond to them effectively [6, 7].

Health care providers can gain patient confidence by focusing on patient satisfaction to increase patient confidence in health services. Patients must trust their healthcare professionals to work for their best interests and results. Improving the competence of health workers, strengthening the law, discipline and effective management of patient complaints, are often proposed as a strategy to increase patient confidence [8-10].

A study in Sweden found that low levels of trust in hospitals were associated with an increased risk of psychological distress.

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Patients with a low level of trust were less likely to seek or access health services, and were less likely to accept health service recommendations or maintain continuity of care, and were more likely to avoid health care, including hospitals [11].

Based on data from the Health Office of Polewali Mandar Regency in 2016, there was one hospital located in the city center, 20 community health center and 58 pharmacies to serve 417, 472 inhabitants of Polewali Mandar Regency. The number of dentists on duty at the community health center in 2016 was 16 dentists. The ratio of dentists and population was 4: 100,000, whereas based on the indicator target of 'Healthy Indonesia' program, the ideal category for the ratio of dentists and population is 11: 100,000, this indicates the lack of doctors who work in remote areas which then has an impact on the quality of services provided [12, 13].

Patient confidence will have an impact on the level of patient visits to the hospital. Polewali Mandar Regency has only one public hospital located in the city center and a research had been conducted and revealed that Polewali Mandar Hospital had good quality of service. However, there is no research that examines the influence of service quality on community confidence in Polewali Mandar Regency.

Materials And Methods

Code of ethics: 0246/PL09/KEPK FKG-RSGM UNHAS/ 2019. This study used a pilot pathfinder design and was conducted in Wonomulyo Subdistrict, and Bulu Subdistrict, Polewali Mandar Regency, July 22 - July 26, 2019. Researchers took

as many as 458 subjects based on criteria, namely urban communities in Wonomulyo Subdistrict and rural communities in Bulu Subdistrict, Polewali Mandar Regency, aged 18 years and over and had undergone dental care both at the community health center and at the hospital located at Polewali Mandar.

The inclusion criteria in this study included the community in Wonomulyo and Bulu Subdistricts, Polewali Mandar Regency, aged ≥ 18 years, those who had received services in dental polyclinics in community health service or hospitals in Polewali Mandar Regency and were willing to fill out questionnaires. Exclusion criteria in this study were subjects who did not complete the questionnaire and subjects who did not return the questionnaire.

Assessment was done using a Likert scale with item valuation, namely code 5 = very satisfied, code 4 = satisfied, code 3 = quite satisfied, code 2 = not satisfied, code 1 = very dissatisfied. Then the dimensions of service and confidence were classified into categories namely low: 1-2.33, moderate: 2.34-3.66, high: 3.67-5.00 [14, 15].

Results

The research design used was a pilot pathfinder survey, conducted in urban and rural areas of Polewali Mandar Regency, so that only 458 subjects were obtained that met the inclusion and exclusion criteria.

Table 1 showed the distribution of characteristics of survey subjects by sex, age, ethnicity, and religion. Based on gender, in urban areas the number of female subjects was higher than men, which

Table 1. Distribution of Subjects by Gender, Age, Ethnicity, Religion.

Characteristics	Urban		Rural		Total	
	n	%	n	%	N	%
Gender						
Male	111	47	125	56.1	236	51.4
Female	125	53	98	43.9	223	48.6
Age group (years)						
18-24	128	54.2	85	38.1	213	46.4
25-34	47	19.9	51	22.9	98	21.4
35-44	18	7.6	39	17.5	57	12.4
45-55	32	13.6	38	17	70	15.3
56>	11	4.7	10	4.5	21	4.6
Ethnicity						
Bugis	79	33.5	21	9.4	100	21.8
Makassar	6	2.5	8	3.6	14	3.1
Toraja	5	2.1	4	1.8	9	2
Mandar	78	33.1	155	69.5	233	50.8
Etc.	68	28.8	35	15.7	103	22.4
Religion						
Islam	222	94.1	209	93.7	431	93.9
Buddha	9	3.84	9	4	18	3.9
Hindu	0	0	0	0	0	0
Christian	5	2.1	5	2.2	10	2.2
Etc.	0	0	0	0	0	0
TOTAL	236	100	223	100	459	100

Source : primary data 2019

was 125 subjects (53.3%), and in rural areas the number of male subjects was higher than women, which was 125 subjects (56.1%). Based on age characteristics, the most subjects in urban areas were 18-24 years old, as many as 128 subjects (54.2%) and in rural areas the most subjects were 18-24 years old, as many as 85 subjects (38.1%). Based on ethnic characteristics, the most subjects in urban areas were Bugis tribes as many as 79 subjects (33.5%) and in rural areas the most subjects were Mandar tribes as many as 155

subjects (69.5%). Based on the characteristics of religion, in urban areas the most subjects were 222 Muslims (94.1%) and in rural areas the most subjects were 209 Muslims (93.7%).

Table 2 showed the distribution of subject characteristics based on marital status, latest education and employment. Based on the characteristics of marital status in urban areas, the highest number of subjects was unmarried status as many as 118 subjects (50.0%)

Table 2. Distribution of Subjects Based on Marital Status, Latest Education, and Employment.

Characteristics	Urban		Rural		Total	
	n	%	n	%	N	%
Marital status						
Single	118	50	102	45.7	220	47.9
Married	88	37.3	112	50.2	200	43.6
Widow	3	1.3	4	1.8	7	1.5
Widower	24	10.2	5	2.2	29	6.3
Latest Education						
No school	33	14	37	16.6	70	15.3
Elementary school	25	10.6	36	16.1	61	13.3
Middle school	26	11	29	13	55	12
High school	108	45.8	105	47.1	213	46.6
Bachelor/S1	40	16.9	16	7.2	56	12.2
Master/S2	1	0.4	0	0	1	0.2
Doctor/S3	3	1.3	0	0	3	0.7
Employment						
Not working/housewife	109	46.2	90	40.4	199	43.4
Farmer	19	8.1	63	28.3	82	17.9
Laborer/handyman	7	3	7	3.1	14	3.1
Trader/entrepreneurs	45	19.1	39	17.5	84	18.3
Private employee	14	5.9	5	2.2	19	4.1
Government employee	7	3.0	5	2.2	12	2.6
Etc.	35	14.8	14	6.3	49	10.7
TOTAL	236	100	223	100	459	100

Source : primary data, 2019

Table 3. Distribution of subjects based on income per month, distance from home to hospital / community health service / dentist practice, and health insurance status.

Characteristics	Urban		Rural		Total	
	n	%	n	%	N	%
Income per month						
Rp.0 - Rp.150.000	116	49.4	114	51.1	230	50.2
Rp.150.000 - Rp.500.000	30	12.8	25	11.2	55	12.0
Rp.500.000 - Rp.1.000.000	31	13.2	26	11.7	57	12.4
Rp.1.000.000 - Rp.2.000.000	45	19.1	36	16.1	81	17.7
> Rp.2.000.000	13	5.5	21	9.4	34	7.4
Distance from home to hospital / community health service / dentist practice						
0 - 5 km	119	50.4	111	49.8	230	50.1
6 - 10 km	94	39.8	77	34.5	171	37.3
>10 km	23	9.7	35	15.7	58	12.6
Health insurance status						
Yes	96	40.7	84	37.7	180	39.2
No	140	59.3	139	62.3	279	60.8
TOTAL	236	100	223	100	459	100

Source : Primary data, 2019

and in rural areas the most subjects were unmarried status as much as 102 subjects (45.7%). Based on the characteristics of the latest education in urban areas, the most subjects were 'high school education' as many as 108 subjects (45.8%) and in the rural areas the most subjects were 'high school education' as many as 105 subjects (47.1%). Based on the characteristics of employment in urban areas, the most subjects were 'not working or as housewives' as many as 109 subjects (46.2%), and in rural areas the most subjects were 'not working or as housewives' as many as 90 subjects (40.4%).

Table 3 showed the distribution of characteristics of survey subjects based on income per month, distance from home to hospital/community health service/dentist practice, and health insurance status. Based on the characteristics of income per month in urban areas, the highest number of subjects was income per month Rp. 0 - Rp. 150,000 as many as 116 subjects (49.4%) and in rural areas the most subjects were income per month Rp. 0 - Rp. 150,000 as many as 114 subjects (51.1%). Based on the characteristics of the distance from home to hospital /community health service/dentist practice, in urban areas the most subjects were 0-5 km from home to hospital /community health service/dentist practice as many as 119 subjects (50.4%) and in rural areas the most subjects were 0-5 km from home to hospital/community health service/dentist practice as many as 111 subjects (49.8%). Based on the characteristics of health insurance status, in urban areas subjects who did not have health insurance were 140 subjects (59.3%) and in rural areas subjects who did not have health insurance were 139 subjects (62.3%).

Based on table 4 regarding the distribution of respondent's answers in the registration dimension in the Urban area, the majority of respondents' answers were in the low category, total mean value of 12 questions in this dimension was 2.29 and this dimension

was classified as simple. In the doctor dimension in the Urban area, the majority of respondent's answers were in the low category, total mean value of 12 questions in this dimension was 2.17 and this dimension was classified as simple. In the nurse dimension in the urban area, the majority of respondent's answers were in the low category, total mean value of 12 questions in this dimension was 2.28 and this dimension was classified as simple. In the pharmaceutical dimension in the Urban area, the majority of respondent's answers were in the low category, total mean value of 11 questions in this dimension was 2.32 and this dimension was classified as simple. In the hospital/community health service environment dimension in urban areas, the majority of respondent's answers were in the moderate category, total mean value of the 9 questions in this dimension was 2.41 and this dimension was classified as simple. In dimension of community confidence in urban areas, the majority of respondent's answers were in the high category, total mean value of 10 questions in this dimension was 3.80 and this dimension is classified as good.

Based on table 5 regarding the distribution of respondent's answers in the registration dimension in the Rural area, the majority of respondent's answers were in the low category while those in the moderate category were the distance of the location of the registration. Total mean value of 12 questions in this dimension was 2.05 and this dimension was classified as simple. In the dimension of doctors in the Rural area, the majority of respondent's answers were in the low category. Total mean value of 12 questions in this dimension was 2.14 and this dimension was classified as simple. In the dimension of nurses in rural areas the majority of respondent's answers were in the low category. Total mean value of 12 questions in this dimension was 2.25 and this dimension was classified as simple. In the pharmaceutical dimension in the Rural area, the majority of respondent's answers were in the moderate category. Total mean value of 11 questions in this dimension was

Table 4. Distribution of respondent's answers to confidence in urban areas.

Dimension	Mean	Deviation Standard	Category
Registration	2,29	0.87	Low
Doctor	2.17	0.77	Low
Nurse	2.28	0.87	Low
Pharmacy	2.32	0.81	Low
Hospital/community health service environment	2.41	1.15	Moderate
Confidence	3.80	0.81	High

Low : 1 - 2.33 ; moderate : 2.34 - 3.66 ; High : 3.67 - 5.00

Source : Primary data, 2019

Table 5. Distribution of respondents' answers to confidence in rural areas.

Dimension	Mean	Deviation Standard	Category
Registration	2.05	0.82	Low
Doctor	2.14	0.82	Low
Nurse	2.25	0.9	Low
Pharmacy	2.34	0.92	Moderate
Hospital/community health service environment	2.41	1.15	Moderate
Confidence	3.67	0.86	High

Low : 1 - 2.33 ; moderate : 2.34 - 3.66 ; High : 3.67 - 5.00

Source : Primary data, 2019

Table 6. The Influence of service quality on confidence.

Dimension	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	40.518	1.296		31.271	0.000
Registration	0.207	0.063	0.212	3.305	0.001
Doctor	-0.524	0.066	-0.557	-7.911	0.000
Nurse	0.082	0.078	0.098	1.052	0.294
Pharmacy	0.153	0.076	0.169	2.014	0.045
Environment	-0.061	0.071	-0.059	-0.866	0.387

Source: primary data processed, 2019

Table 7. Coefficient of Determination 'Service Quality on Confidence'.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.365	0.133	0.123	6.73

Source: primary data processed, 2019

2.34 and this dimension was classified as simple. In the dimensions of the hospital/community health service environment in the Rural area, the majority of respondent's answers were in the moderate category, total mean value of 9 questions in this dimension was 2.41 and this dimension was classified as simple. In community confidence in rural areas, the majority of respondent's answers were in the high category. Total mean value of 10 questions in this dimension was 3.67 and this dimension was classified as good.

Based on the results of the regression analysis table, it could be explained that the dimensions of service quality, including the dimensions of registration, doctors, and pharmacy had a significant influence on community confidence with a P value <0.05.

Table 7 showed the coefficient of determination, where the value of R Square obtained was 13.3%, which was the magnitude of the influence of service quality on confidence, and the remaining 86.7% was the magnitude of influence caused by other factors that was not examined in this study.

Discussion

The results of a survey conducted in Polewali Mandar Regency, showed that patients who received more dental care in health facilities were patients in the 18-24 years age group. Based on gender, male patients made more hospital visits than women, this is not in line with previous studies conducted in Bantaeng Regency which stated that more female patients visited health facilities than male patients [15].

In the registration dimension in urban and rural areas, the item that had the lowest mean value was the facilities in the registration section. This result is not in line with a research conducted in Banjarmasin, Indonesia, where the facilities in the registration section were in the high category, because the registration system implemented was online-based system, where the online administration process was more efficient than the usual registration system, so it did not require a long time in registration section [17].

In the doctor dimension in the urban area, the item that had the lowest mean values were the neatness, cleanliness and uniformity of the doctor's clothes. These results are not in line with a research conducted in Bantaeng Regency, where uniformity of doctors was in the high category, because differences in appearance would make it easier for patients to distinguish between doctors and nurses or other staff [15].

In the dimension of doctors in the rural area, the item that had the lowest mean value was 'the doctor explains the answers to questions raised by the patient'. These results are in line with research conducted in Iran, where doctors did not provide enough opportunities for patients to ask questions about their dental and oral health problems, that was because of the short treatment time and the large number of patients that must be treated, so that time to explain the answers to patient's questions was very limited [18].

In the nurses dimension in the Urban and Rural areas, the item that had the lowest mean value was 'neatness, cleanliness and uniformity of the nurse's clothes'. These results are not in line with a research conducted in Bantaeng Regency where uniformity of nurses was in the high category, because differences in appearance would make it easier for patients to distinguish between doctors and nurses or other staff [15].

In the pharmaceutical dimension in urban and rural areas, item that had the lowest mean value was 'neatness, cleanliness and uniformity of pharmacy clothing'. This result is not in line with a research conducted in Bantaeng Regency, where the uniformity of each staff was in the high category, because the difference in appearance would make it easier for patients to distinguish between doctors and nurses or other staff [15].

In the dimensions of the hospital/community health service environment in the Urban and Rural areas, items that had the lowest mean value were 'the cleanliness of the hospital environment' for the Urban area and 'the beauty of the park around the hospital or community health service' in the Rural area. These results were

not in line with a research conducted in California, where environmental cleanliness and beauty of the park were in the high category, because cleanliness would make patients, visitors or staff more comfortable, especially with the presence of a park in a hospital/community health service [19].

In this study it was found that service quality had a significant influence on confidence. This is in line with a research conducted in Iran's health services sector, where service quality had a positive impact on patient confidence. Similarly, research conducted at the Special Hospital of South Sulawesi and Malang General Hospital, revealed the influence of service quality on confidence had a P value of 0.028, which means that service quality significantly influenced confidence [20-22].

The quality of service affects expectations and reality, if the patients get more service, then the patients will say the service they received has a certain quality and will develop into satisfaction with the service. On the other hand, if the patients feel the service is not in accordance with their expectations then the service is judged to be of poor quality. Patients generally have expectations in the form of pharmacists should be more friendly, more responsive to patient needs, give medicines to patients with a fast time, clearer writing of drugs, a waiting room that is more comfortable and cleaner [23, 24].

Health services that are easily accessible can produce developments in the use of health services by patients. Some actions need to be taken to improve the quality of services in health facilities. Health service staff, including nurses, registration officers, and doctors, must continue to be trained in order to realize the wishes of patients. The wishes and expectations of patients should be heard in order to ensure good quality health services in rural and urban areas. In addition, the environment in health care centers must also be cleaner and healthier [25-29].

Conclusion

The dimensions that had the lowest mean values were the registration dimension, the doctor dimension, the nurse dimension, and the pharmaceutical dimension. On service quality, the dimensions of registration, doctors and pharmacy had a significant influence on community confidence. In addition, community confidence had a good mean value, and the quality of health services had a significant influence on community confidence.

Ethics Approval

Permission was approved from Faculty of Dentistry, Ethics and Research Advisory Committee, Hasanuddin University.

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