

Need Factors Related to Utilization of Oral and Dental Health Services

Yusriani

Public Health Study Program, Universitas Muslim Indonesia, Makassar, Indonesia
yusriani.yusriani@umi.ac.id

Abstract. Dental and oral problems based on the results of the Basic Health Research (Riskesdas) in 2018 amounted to 57.6% and 10.2% received services from dental medical personnel, so the effective medical demand for dental treatment was very low. There is a high gap between the decreasing visits and the increasing prevalence of dental caries in the last two years at the Dental Polyclinic of Puskesmas Tamalate Makassar. The purpose of this study was to analyze the relationship between need factors and the utilization of health services at the Dental Polyclinic of Puskesmas Tamalate Makassar 2020. This study was an observational analytic study with a quantitative approach with a cross sectional design. The population in this study were 78 patients who visited the dental polyclinic at Tamalate Makassar Public Health Center. Sampling was done by accidental sampling. Data analysis used Chi Square test and linear regression. The results showed that of the 35 respondents who stated negative perceived need, 11.4% did not take advantage of dental and oral health services and. Meanwhile, of the 43 respondents who stated positive perceived need, 37.2% took advantage of dental and oral health services. Of the 31 respondents who stated that the evaluated need did not agree, as many as 100% did not use dental and oral health services. Meanwhile, of the 47 respondents who stated that the evaluated need agreed that as much as 100% used dental and oral health services. The results of statistical tests using the chi-square and linear regression test showed that there was a significant relationship perceived and evaluated need factors on the use of dental and oral health services in a positive direction at the Polyclinic of Puskesmas Tamalate Makassar. Conclusion There was a significant relationship between the need factors on the use of dental and oral health services. Puskesmas were expected to maintain and provide good perceptions to patients about their oral and dental health to increase health services utilization at the dental polyclinic of Puskesmas Tamalate.

Keywords: need factors; dental health; oral health; services

1. Introduction

Oral and dental health is an important part of general health and well-being and is an important factor affecting a person's quality of life [1]. Based on the 2014 Indonesian Happiness Index regarding the level of life satisfaction with ten aspects of life, the health aspect ranks sixth with a value of 69.72 [2]. Various studies in the field of Dentistry have shown that the person's oral health level also influences the quality of life for a person. Poor oral and dental health can impact the quality of life for individuals [3].

Knowing individual perceptions of dental care needs is useful in understanding why someone is seeking or not seeking treatment, which means not utilizing existing health facilities. Perceptions of the need for dental care can influence public interest in using dental health service units. An illustration of the utilization of dental health service units can be seen in the 2014 Indonesian Health Profile, namely the puskesmas, which averaged five people per day the national target. The utilization of puskesmas was nine people per day. Utilization of class B public hospitals with an average visit of 23 people per day, while the national target is 65 people per day [4].

The low utilization of health facilities, such as puskesmas, is often related to factors of knowledge, the attitude that the distance between these facilities and the community is too far (both physically and socially), high tariffs, unsatisfactory services, and so on. We often forget that the use of dental health services is also influenced by the characteristics and perceptions of the individuals themselves on their dental health. According to Ronald Andersen, the behavioral factors of health service utilization, quoted in Notoadmojo 2003, are grouped into predisposing, enabling, and need factors, which can influence a person's utilization of health services [5], [6].

The results of the Basic Health Research (Riskesdas) in 2018 showed dental and oral health problems by 57.6%, and those who received services from dental medical personnel were 10.2%. This means that the effective medical demand (desire and ability to get services) for dental treatment is very low, only 10.2% [4]. Based on the Ministry of Health's Pusdatin 2014, South Sulawesi became the province with the highest population with dental and oral problems, around 36.2%. Still, only 25.3% received treatment from dental medical personnel, whereas EMD (effective medical demand) was 10.3% [4]. In general, the principle of preventive action can be carried out by intervening in the factors that cause disease through primary prevention services. The government has carried out various activities to improve the degree of dental and oral health, one of which is implementing efforts to provide dental health care, the implementation of which is entrusted with community primary service facilities [5], [6].

Excellent service needs to be realized in health services. If viewed from the health service system in Indonesia, the role and position of the Puskesmas is as the spearhead of the health service system in Indonesia. This is because the role and position of Puskesmas in Indonesia are unique, as a primary healthcare facility responsible for carrying out public health services as a preventive effort. The main objective of the Puskesmas is to improve health and prevent disease, with the main target being the community [7].

His previous research stated that the low utilization rate of puskesmas services was influenced by various factors, both community factors as health service users and the puskesmas itself as health service providers [8]. Research on factors related to the utilization of health services at Puskesmas Kema linked knowledge and the utilization of health services at the health center shows that those who have good knowledge of the status of utilizing health services at the Puskesmas are 41(62.12%) respondents, while respondents who have good knowledge but do not utilize health services at the Puskesmas are 25 (37.88%) [9].

Based on the results of the initial survey conducted by researchers, according to data on visits for the last four years, in 2016, there were 3,571 visits; in 2017, there were 2,696; in 2018, there were 4,437; and in 2019, there were 4,103. This data shows the ups and downs of using services at the dental polyclinic of the Tamalate Health Center. In addition, it can be seen from the data on the prevalence of dental caries in 2018 as much as 39% and in 2019 as much as 41%. This shows that the gap between visits has decreased, and the prevalence of dental caries has increased in the last two years. Based on the above background, researchers are interested in researching the Need Factor Analysis of the Utilization of Health Services at the Dental Polyclinic of the Tamalate Makassar Health Center 2020.

2. Research Method

This research was conducted at the Tamalate Health Center in May-June 2020. The type of research used is quantitative research. The research design used was a cross sectional study. The data used are primary data with questionnaire data collection techniques. The study population was everyone who attended the Dental Polyclinic of Tamalate Health Center 2020. In this study, the population was taken from an average monthly visit, namely 350 patients; the sample size was determined using the Slovin formula, and sampling was carried out by accidental sampling, with a sample size of 78 respondents. The results of these studies are described in the form of a frequency distribution table and are tested using Chi-Square. In addition, in this study, data analysis was carried out after the data from the questionnaire were collected. After the complete data is collected and tabulated based on the sub-variables studied, the calculation is carried out using path analysis. Path analysis aims to determine the direct and indirect effect of exogenous (free) variables on endogenous (bound) variables with significance (σF) ≤ 0.05 and significance (σT) ≤ 0.05 .

3. Results and Discussion

The characteristics of respondents in this study were divided into four characters, namely, based on age, gender, education, and occupation. Descriptions of the characteristics of the researchers' researchrespondents are described below:

Table 1. Characteristics analysis of respondents at Tamalate Public Health Center

Characteristics Of Respondent	n	(%)
Gender		
Male	24	30,8
Female	54	69,2
Age		
<20 years old	1	1,3
20-29 years old	19	24,4
30-39 years old	30	38,5
40-49 years old	21	26,9
>50 years old	7	9,0
Education Level		
Elementary School	5	6,4
Middle School	28	35,9
Senior High School	38	48,7
University	7	9,0
Job		
Civil servants	2	2,6
Private employees	10	12,8
entrepreneur	18	23,1
Student / Student	4	5,1
Labor	2	2,6
Housewife	33	42,3
Does not work	9	11,5

Table 1 shows 24 male respondents (30.8%) and 54 female respondents (69.2%). The most important age group was the 30-39 age group, namely 30 people (38.5%), while the smallest age group was the <20 years age group, with only one person (1.3%). The largest education group is SMA education, 38 people (48.7%), while the lowest is the primary education group, only five people (6.4%). The occupational group of the most respondents is IRT, which is 33 people (42.3%), while the lowest respondent's occupation is in the civil servant and labor groups, namely only two people (2.6%) respectively.

3.1 Need factors (need) for the Utilization of Dental and Oral Health Services

Table 2. Factors of Need for Utilization of Dental and Oral Health Services at the Polyclinic of Tamalate Public Health Center 2020

Factors of Need	Utilization of Dental and Oral Health Services				Total		P Value
	Not Utilizing		Utilizing		n=78	%	
	n=31	%	n=47	%			
<i>Perceived need</i>							
Negative	4	11,4	31	88,6	35	100	0,000
Positive	27	62,8	16	37,2	43	100	
<i>Evaluated need</i>							
Disagree	31	100	0	0	31	100	0,000
Agree	0	0	47	100	47	100	

Table 2 shows that of the 35 respondents who stated negative perceived need, 11.4% did not take advantage of dental and oral health services, and 88.6% used dental and oral health services. Meanwhile, of the 43 respondents who stated positively perceived need, 62.8% did not take advantage of dental and oral health services, and 37.2% used dental and oral health services. Of the 31 respondents who stated that the evaluated need did not agree, 100% did not use dental and oral health services, while of the 47 respondents who stated that the evaluated need agreed, 100% or all of them used dental and oral health services.

3.2 Perceived Need for the Utilization of Oral and Dental Health Services

Perceived needs based on individual perceptions are needs determined by the individual and are subjective. The need for dental and oral care based on individual perceptions in this study is quite good; this can be seen from as many as 55.1% of visitors have positive perceived need. This is because the % of patient visitors at the dental polyclinic at Tamalate Makassar Public Health Center is 69.2%. Previous research states that women pay more attention to beauty, cleanliness, and personal appearance, so they try to overcome health problems in their teeth and mouth [10], [11].

The results of this study indicate that 37.2% of visitors have a positive perceived need to utilize dental and oral health services at the dental polyclinic of Tamalate Makassar Health Center. The results of statistical tests using the Chi-square test also showed a significant relationship between perceived need and the utilization of dental and oral health services. Utilization of dental and oral health services by people who are not settled (nomadic) is more strongly driven by need [12]–[14]. The public's perception of being healthy and sick is closely related to treatment-seeking behavior or not the health facilities provided [15], [16]. Health services are founded on the assumption that people need them.

According to Notoatmodjo, people's perceptions of health are closely related to treatment-seeking behavior. These two main ideas affect whether or not the health facilities provided are used. Health services are established based on the assumption that the community needs them [6], [15]. This research aligns with previous research, which states a relationship between perceptions and health services utilization in Puskesmas [17], [18].

3.3 Evaluated Need for the Utilization of Dental and Oral Health Services

Regarding needs related to evaluated needs, the results showed a relationship with the use of dental and oral health services. This can be seen from the 56 visitors/patients who agreed to the evaluated need, as much as 100% who took advantage of dental and oral health services at the dental polyclinic of the Tamalate Makassar Health Center. Health is a basic human need to live a decent and productive life, one of which is oral health. Health costs sometimes make it difficult for people to access health services, but more is needed compared to the perceived health needs.

The influence of need factors on the utilization of dental and oral health services can be seen

from the results of the regression test, which shows that the need factors consisting of perceived needs, namely perceived need and evaluated need, have a significant effect with a value of $p=0.000$ and $P=0.000$, which is smaller than the value. Alpha 0.05. Health is one of the basic human needs besides food, housing, and education because only in a healthy state can humans live, grow, and work better. The community will strive to obtain health, a continuously maintained and developed special institution, especially in utilizing health services. Which exists [19].

4. Conclusion

There is a significant effect of the need factor on the utilization of health services at the Dental Polyclinic of Puskesmas Tamalate Makassar with a positive direction. Puskesmas Tamalate Makassar is expected to provide education to increase positive perceptions of patient needs regarding awareness of caring for their teeth and mouth and increase the utilization of health services at the dental polyclinic of Puskesmas Tamalate.

5. References

- [1] A. Blanco-Aguilera *et al.*, "Application of an oral health-related quality of life questionnaire in primary care patients with orofacial pain and temporomandibular disorders," *Med. Oral Patol. Oral y Cir. Bucal*, vol. 19, no. 2, pp. e127–e135, 2014, doi: 10.4317/medoral.19061.
- [2] D. T. L. Shek and B. M. Lee, "A Comprehensive Review of Quality of Life (QOL) Research in Hong Kong," *Sci. World J.*, vol. 7, pp. 1222–1229, 2007, doi: 10.1100/tsw.2007.217.
- [3] N. Jürgensen and P. E. Petersen, "Oral health and the impact of socio-behavioural factors in a cross sectional survey of 12-year old school children in Laos," *BMC Oral Health*, vol. 9, no. 1, p. 29, Dec. 2009, doi: 10.1186/1472-6831-9-29.
- [4] Pusdatin, "Profil Kesehatan Provinsi Sulawesi Selatan Tahun 2014," 2014.
- [5] Depkes, "Survei Kesehatan Rumah Tangga," 2006.
- [6] Notoatmodjo, *Pengetahuan Pendidikan dan Perilaku Kesehatan*. 2003.
- [7] A. Anwar, "The correlation between dental health status and the quality of life in the elderly in District Malili, Luwu Timur," *Dentofasial*, vol. 13, no. 3, pp. 160–164, 2014.
- [8] C. Rahayu, S. Widiati, and N. Widyanti, "Hubungan antara Pengetahuan, Sikap, dan Perilaku terhadap Pemeliharaan Kebersihan Gigi dan Mulut dengan Status Kesehatan Periodontal Pra Lansia di Posbindu Kecamatan Indihiang Kota Tasikmalaya," *Maj. Kedokt. Gigi Indones.*, vol. 21, no. 1, p. 27, Jun. 2014, doi: 10.22146/majkedgiind.8515.
- [9] E. Rodakowska, K. Mierzyńska, J. Bagińska, and J. Jamiołkowski, "Quality of life measured by OHIP-14 and GOHAI in elderly people from Białystok, north-east Poland," *BMC Oral Health*, vol. 14, no. 1, p. 106, Dec. 2014, doi: 10.1186/1472-6831-14-106.
- [10] N. Adelina, F. Fitriana, T. Naid, S. Seniwati, and S. Septiyanti, "Isolation and Test of Anti-Bacterial Activity of Endophytic Fungi in Clove Flowers (*Syzygium aromaticum* L.) in Inhibiting Bacteria Causes of Dental Caries," *Wind. Heal. J. Kesehat.*, pp. 148–154, Apr. 2019, doi: 10.33368/woh.v0i0.171.
- [11] Z. Maulidiyah, S. Seniwati, R. Rusli, and T. Naid, "Isolasi Bakteri Rhizosfer Tanaman Nilam (*Pogostemon Cablin* Benth.) Yang Berpotensi Sebagai Penghasil Senyawa Antibakteri Terhadap Bakteri Penyebab Infeksi Saluran Pencernaan," *Wind. Heal. J. Kesehat.*, pp. 132–139, Apr. 2020, doi: 10.33096/woh.v3i2.601.
- [12] M. Naito, H. Yuasa, Y. Nomura, T. Nakayama, N. Hamajima, and N. Hanada, "Oral health status and health-related quality of life: a systematic review," *J. Oral Sci.*, vol. 48, no. 1, pp. 1–7, 2006, doi: 10.2334/josnusd.48.1.
- [13] Basuni, Cholil, Putri, and Deby Kania Tri, "Gambaran indeks kebersihan mulut berdasarkan tingkat pendidikan masyarakat di Desa Guntung Ujung Kabupaten Banjar," *Dentino J. Kedokt. Gigi*, vol. 2, no. 1, pp. 18–23, 2014.
- [14] Y. Yusriani and M. Khidri Alwi, "Community Empowerment Model Based on Local Wisdom

- As an Effort to Reduce Maternal Mortality Rate in Jenepono Regency,” 2018. doi: 10.2991/isphe-18.2018.44.
- [15] M. K. Yusriani, & Alwi, *Buku Ajar Promosi Kesehatan dan Pemberdayaan Masyarakat*. Ponorogo: Forum Ilmiah Kesehatan (FORIKES), 2018.
- [16] K. Peltzer and S. Pengpid, “Oral Health Behaviour and Social and Health Factors in University Students from 26 Low, Middle and High Income Countries,” *Int. J. Environ. Res. Public Health*, vol. 11, no. 12, pp. 12247–12260, Nov. 2014, doi: 10.3390/ijerph111212247.
- [17] D. E. Jacob and Sandjaya, “Faktor Faktor Yang Mempengaruhi Kualitas Hidup Masyarakat Karubaga District Sub District Tolikara Propinsi Papua,” *J. Nas. Ilmu Kesehat. LP2M Unhas*, vol. 1, pp. 1–15, 2018.
- [18] B. I. Sukmana, “Gambaran Karies Dengan Menggunakan Dmf-T Pada Masyarakat Pesisir Pantai Kelurahan Takisung Kecamatan Takisung Kabupaten Tanah Laut,” *Dentino*, vol. 1, no. 2, pp. 182–185, 2016.
- [19] D. Ika, L. Wagiran, W. P. J. Kaunang, and V. N. S. Wowor, “Kualitas Hidup Remaja SMA Negeri 6 Manado yang Mengalami Maloklusi,” *J. Kedokt. Komunitas dan Trop.*, vol. 2, no. 2, pp. 85–89, 2014.