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## Original Article

## Factors Related to Dental Health Service Utilization in Makassar City, Indonesia

\*Triana Amaliah Jayanti<sup>1</sup>, Muhammad Tahir Abdullah<sup>1</sup>, Nurmiati Muchlis<sup>1</sup>, Reza Aril Ahri<sup>1</sup>, Samsualam<sup>1</sup>, Andi Rizki Amelia<sup>1</sup>

<sup>1</sup>Magister in Public Health, Postgraduate Program, Universitas Muslim Indonesia, Makassar, Indonesia

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### Corresponding Author:

E-mail:

[triana.amaliah@gmail.com](mailto: triana.amaliah@gmail.com)

Address: Jalan. Urip Sumeharjo,

No. 5, 90231, Makassar,

South Sulawesi, Indonesia

Phone: +6285343721961

### Abstract

**Background:** The awareness on dental hygiene among Indonesian is still low. As a result, very limited citizen who visit the dentalcare.

**Aim:** The purpose of this study is to analyze the relationship between behavior determinants with dental health services utilization at Kapasa Health Center.

**Method:** This type of research is analytic observational with a quantitative approach, with a cross sectional approach. The samples were 96 respondents from the community in the working area of Kapasa Health Center. The data were analyzed using chi-square and logistic regression test.

**Results:** The results showed the low utilization of dental health services at Kapasa Health Center (26.0%). The results of the relationship analysis showed that there were relationship between knowledge ( $p=0.020$ ), perception ( $p=0.001$ ), attitude ( $p=0.016$ ), education level ( $p=0.010$ ), health insurance ownership ( $p=0.022$ ), family support ( $p=0.043$ ) with dental health services utilization. There were no relationship between health information ( $p=0.109$ ), health facilities ( $p=0.051$ ), health workers support ( $p=0.435$ ) with dental health services utilization at Kapasa Health Center.

**Conclusion:** The health insurance ownership is the most dominant in the utilization of dental health services at Kapasa Health Center with a value of B is +2.881. The value of B is positive, meaning that if you have health insurance, it will increase the utilization of dental health services at Kapasa Health Center. The value of Exp (B) is 17.835 which means that having health insurance will result in peoples utilize dental health services at public health center which is 17.835 times greater than if does not have health insurance.

## INTRODUCTION

Dental and oral health is an integral part of overall body health, so maintaining oral health is very important and cannot be ignored (Junaidi and Razi 2018). Based on Law No. 36 of 2009 concerning health, dental and oral health services are carried out to maintain and improve the health status of the community in the form of improving dental health, treating dental diseases, and restoring dental health which are carried out in an integrated and sustainable (Departemen Kesehatan RI 2009).

Based on the Basic Health Research (RISKESDAS) in 2018, the national prevalence of dental health problems was 57.6% and those who received medical treatment or dental health services from dentist were only 10.2%. South Sulawesi province ranges between 60-70%, and ranks second after Central Sulawesi province (73.5%) which is included in the province that has quite high dental health problems. Indonesian people's perception and behavior towards dental health is still bad. This can be seen from the large percentage of dental problems in Indonesia which tends to increase (Kemenkes RI 2018).



Kapasa Health Center is a health center that is quite developed with patient visits in 2020 as many as 10,803 patients. But awareness of the community around the Kapasa Health Center to check their teeth is still lacking. Based on monthly data reports and information from the Kapasa Health Center, the number of visits at the dental polyclinic was still lacking with patient visits in 2020 as many as 625 patients, the average visit was only 1-2 patients in a day, while according to the Indonesian Ministry of Health guidelines in 1995, indicators of the effectiveness of dental health services unit utilization at Public health center are the average number of patient visits are 9 people in a day (Dwiastuti 2013).

Low visits in the utilization of dental health services are influenced by many factors, such as the individual's own characteristics and perceptions of their dental health. In fact, in society there are various concepts of health and illness given by health service providers. Based on the results of Adriyaningsih's research (2014), factors related to the decision to utilize dental and oral health services are knowledge, attitudes, health facilities, and health insurance (Adriyaningsih, Palutturi, and Arsin 2014).

Based on the description above, the researcher is interested in conducting research about the relationship behavioral determinants with dental health services utilization at Kapasa Health Center, Tamalanrea District, Makassar City.

## METHOD

This study used a cross sectional approach with the type of research being analytic observational. The population in this study is the community in the working area of the Kapasa Health Center, Tamalanrea District, Makassar City. The inclusion criteria: (a) Community in the working area of Kapasa Health Center Makassar City. (b) Age  $\geq 14$  years. (c) Able to communicate well. (d) Willing to fill out the questionnaire. Meanwhile, the exclusion criteria: primary or mixed teeth. Sampling technique by accidental sampling, with a total sample of 96 respondents.

Data collection was carried out using a questionnaire starting from April – May 2021. The questionnaire contained statements and questions regarding the relationship between knowledge, perceptions, attitudes, education level, health insurance ownership, health information, health facilities, family support, and health workers support with the dental health services utilization at Kapasa Health Center Makassar City. Data were analyzed using chi-square test and logistic regression test with SPSS 26 programs.

## RESULTS

### *Univariate Analysis Results*

Distribution based on age, sex, knowledge, perception, attitude, education level, health insurance ownership, health information, health facilities, family support, health workers support, and dental health services utilization at Kapasa Health Center Makassar City. The results of the data analysis are as follows:

**Table 1. Characteristics of Respondents**

Variable	N	%	
Age	14 – 45 years	72	75%
	>45 years	24	25%
Sex	Male	41	42.7%
	Female	55	57.3%
Dental Health Service Utilization	Not Utilize	71	74%
	Utilize	25	26%
Knowledge	Low	38	39.6%
	High	58	60.4%
Perception	Negative	66	68.8%
	Positive	30	31.2%
Attitude	Negative	66	68.8%

Variable	N	%	
Education Level	Positive	30	31.2%
	Lower	59	61.5%
	Higher	37	38.5%
Health Insurance Ownership	Not Have Health Insurance	24	25%
	Have Health Insurance	72	75%
Health Information	Not Get Information	18	18.8%
	Get Information	78	81.2%
Health Facilities	Less Good	7	7.3%
	Good	89	92.7%
Family Support	Less Supportive	31	32.3%
	Supportive	65	67.7%
Health Workers Support	Less Supportive	2	2.1%
	Supportive	94	97.9%

Source: Primary Data, 2021

Based on the data collected from respondents, which can be seen in table 1, it shows that the age category of respondents are dominated by the age of 14 - 45 years: 72 people (75%), while those aged > 45 years: 24 people (25%). In the sex variable, respondents are dominated by female sex: 55 people (57.3%), while male sex: 41 people (42.7%). In the variable of dental health services utilization, respondents are dominated by those who did not utilize dental health services: 71 people (74%), while those who utilized: 25 people (26%). In the knowledge variable, respondents are dominated by high knowledge: 58 people (60.4%), while respondents with low knowledge: 38 people (39.6%).

Based on perception variable, respondents are dominated by negative perceptions: 66 people (68.8%), while positive perceptions: 30 people (31.2%). The attitude variable, respondents are dominated by negative attitudes: 66 people (68.8%), while positive attitudes: 30 people (31.2%). The variable of education level are dominated by lower education level: 59 people (61.5%), while the higher education level: 37 people (38.5%). The variable of respondent's health insurance ownership is dominated by who have insurance: 72 people (75%), while those who don't have health insurance: 24 people (25%).

Based on health information variable, respondents are dominated by who got health information: 78 people (81.2%), while who did not get health information: 18 people (18.8%). For the health facility variable, respondents are dominated by who rate good: 89 people (92.7%), while who rate less good: 7 people (7.3%). In the variable of family support are dominated by respondents with supportive family: 65 people (67.7%), while respondents with less supportive family: 31 people (32.3%). The variables of health workers support are dominated by respondents who rated the health workers support dental health service: 94 people (97.9%), while those who rate less supportive: 2 people (2.1%).

### Bivariate Analysis Results

Table 2. Chi-Square Test Result

Variable	Dental Health Service Utilization				Total		Sig
	Not Utilize		Utilize		N	%	
	N	%	N	%			
<b>Knowledge</b>							
Low	33	86.8%	5	13.2%	38	100%	0.020
High	38	65.5%	20	34.5%	58	100%	
Total	71	74.0%	25	26.0%	96	100%	
<b>Perception</b>							
Negative	42	63.6%	24	36.4%	66	100%	0.001
Positive	29	96.7%	1	3.3%	39	100%	

Variable	Dental Health Service Utilization				Total		Sig
	Not Utilize		Utilize		N	%	
	N	%	N	%			
Total	71	74.0%	25	26.0%	96	100%	
<b>Attitude</b>							
Negative	44	66.7%	22	33.3%	66	100%	0.016
Positive	27	90.0%	3	10.0%	30	100%	
Total	71	74.0%	25	26.0%	96	100%	
<b>Education Level</b>							
Lower	49	83.1%	10	16.9%	59	100%	0.010
Higher	22	59.5%	15	40.5%	37	100%	
Total	71	74.0%	25	26.0%	96	100%	
<b>Health Insurance Ownership</b>							
Not have health insurance	22	91.7%	2	8.3%	24	100%	0.022
Have health insurance	49	68.1%	23	31.9%	72	100%	
Total	71	74.0%	25	26.0%	96	100%	
<b>Health Information</b>							
Not get information	16	88.9%	2	11.1%	18	100%	0.109
Get Information	55	70.5%	23	29.5%	78	100%	
Total	71	74.0%	25	26.0%	96	100%	
<b>Health Facilities</b>							
Less good	3	42.9%	4	57.1%	7	100%	0.051
Good	68	76.4%	21	23.6%	89	100%	
Total	71	74.0%	25	26.0%	96	100%	
<b>Family Support</b>							
Less supportive	27	87.1%	4	12.9%	31	100%	0.043
Supportive	44	67.7%	21	32.3%	65	100%	
Total	71	74.0%	25	26.0%	96	100%	
<b>Health Workers Support</b>							
Less supportive	1	50.0%	1	50.0%	2	100%	0.435
Supportive	70	74.5%	24	25.5%	94	100%	
Total	71	74.0%	25	26.0%	96	100%	

Source: Primary Data, 2021

Based on the data collected from the respondents, which can be seen in table 2 shows that of the 38 respondents with low knowledge, a small proportion (13.2%) utilize dental health services. Meanwhile from 58 respondents who have high knowledge, a small proportion (34.5%) utilize dental health services. The results of the analysis showed that there was a significant relationship between knowledge with dental health services utilization at Kapasa Health Center Makassar City with a value of  $p = 0.020$  ( $p < 0.05$ ).

Based on the table of perception variables, from 66 respondents with negative perceptions, a small proportion (36.4%) utilize dental health services. Meanwhile from 39 respondents with positive perceptions, a small portion (3.3%) utilize dental health services. The results of the analysis showed that there was a significant relationship between perception with dental health services utilization at Kapasa Health Center Makassar City, with a value of  $p = 0.001$  ( $p < 0.05$ ).

Based on the attitude variable table, from 66 respondents with negative attitudes, a small proportion (33.3%) utilize dental health services. Meanwhile from 30 respondents with a positive attitude, a small proportion (10.0%) utilize dental health services. The results of the analysis showed that there was a significant relationship between attitudes with dental health services at Kapasa Health Center Makassar City, with a value of  $p = 0.016$  ( $p < 0.05$ ).

Based on the table of education level variables, from 59 respondents with lower education levels, a small proportion (16.9%) utilize dental health services. Meanwhile from 37 respondents with a higher education level,

almost half of proportion (40.9%) utilize dental health services. The results of the analysis showed that there was a significant relationship between education level with dental health services utilization at Kapasa Health Center Makassar City with a value of  $p = 0.010$  ( $p < 0.05$ ).

Based on the table of health insurance ownership variables, from 24 respondents who do not have health insurance, a small proportion (8.3%) utilize dental health services. Meanwhile from 72 respondents who have health insurance, a small proportion (31.9%) utilize dental health services. The results of the analysis showed that there was a significant relationship between health insurance ownership with dental health services utilization at Kapasa Health Center Makassar City, with a value of  $p = 0.022$  ( $p < 0.05$ ).

Based on the health information variable table, from 18 respondents who do not get health information, a small proportion (11.1%) utilize dental health services. Meanwhile from 78 respondents who get health information, a small proportion (29.5%) utilize dental health services. The results of the analysis showed that there was no significant relationship between health information with dental health services utilization at Kapasa Health Center Makassar City, with a value of  $p = 0.109$  ( $p > 0.05$ ).

Based on the table of health facilities variables, from 7 respondents who rate that the health facilities are not good, half of proportion (57.1%) utilize dental health services. Meanwhile from 89 respondents who rate the health facilities as good, a small proportion (32.3%) utilize dental health services. The results of the analysis showed that there was no significant relationship between health facilities with dental health services utilization at Kapasa Health Center Makassar City, with a value of  $p = 0.051$  ( $p > 0.05$ ).

Based on the table of family support variables, from 31 respondents with less supportive family support, a small proportion (12.9%) utilize dental health services. Meanwhile from 65 respondents with supportive family support, a small proportion (32.3%) utilize dental health services. The results of the analysis showed that there was a significant relationship between family support with dental health services utilization at Kapasa Health Center Makassar City, with a value of  $p = 0.043$  ( $p < 0.05$ ).

Based on the table of health worker support variables, from 2 respondents who rate health workers support to be less supportive, half of proportion (50%) utilize dental health services. Meanwhile from 94 respondents who rate that health workers support is supportive, a small proportion (25.5%) utilize dental health services. The results of the analysis showed that there was no significant relationship between health workers support with dental health services utilization at Kapasa Health Center Makassar City, with a value of  $p = 0.435$  ( $p > 0.05$ ).

### Multivariate Analysis Results

**Table 3. Equation in Variables with Logistic Regression Test**

		B	Sig.	Exp(B)	95% C.I.for EXP(B)	
					Lower	Upper
Step 1	Knowledge	1.624	0.031	5.072	1.164	22.109
	Perception	-2.313	0.050	0.099	0.010	0.996
	Attitude	-1.308	0.172	0.270	0.041	1.764
	Education Level	2.227	0.004	9.270	2.000	42.966
	Health Insurance Ownership	2.893	0.007	18.055	2.175	149.840
	Health Information	1.072	0.329	2.921	0.339	25.192
	Health Facilities	-0.025	0.982	0.976	0.118	8.043
	Family Support	2.589	0.004	13.317	2.263	78.351
	Constant	-14.484	0.005	0.000		
Step 2	Knowledge	1.625	0.030	5.081	1.173	21.999
	Perception	-2.316	0.048	0.099	0.010	0.979
	Attitude	-1.312	0.165	0.269	0.042	1.715
	Education Level	2.230	0.004	9.297	2.047	42.229
	Health Insurance Ownership	2.893	0.007	18.053	2.175	149.854
	Health Information	1.066	0.318	2.904	0.358	23.543
	Family Support	2.594	0.003	13.389	2.421	74.054
		Constant	-14.528	0.003	0.000	

		B	Sig.	Exp(B)	95% C.I.for EXP(B)	
					Lower	Upper
Step 3	Knowledge	1.555	0.034	4.737	1.129	19.883
	Perception	-2.400	0.037	0.091	0.010	0.866
	Attitude	-1.210	0.192	0.298	0.048	1.836
	Education Level	2.308	0.003	10.053	2.210	45.736
	Health Insurance Ownership	2.961	0.007	19.309	2.247	165.960
	Family Support	2.588	0.003	13.300	2.476	71.441
	Constant	-12.651	0.003	0.000		
Step 4	Knowledge	1.559	0.029	4.756	1.174	19.258
	Perception	-2.702	0.015	0.067	0.008	0.597
	Education Level	2.416	0.002	11.196	2.428	51.634
	Health Insurance Ownership	2.881	0.007	17.835	2.171	146.550
	Family Support	2.387	0.005	10.880	2.060	57.449
	Constant	-13.391	0.002	0.000		

Source: Primary Data, 2021

Based on table 3 above, the variables entered in step 1 are knowledge, perception, attitude, education level, health insurance ownership, health information, health facilities, and family support. In step 2, the excluded variable is health facilities. In step 3, the variable that is excluded is health information. While in step 4, the variable that is excluded is attitude.

The results of the logistic regression test above in the last step, step 4, show that there are 5 variables that have an influence on dental health services utilization: knowledge variable ( $p = 0.029$ ), perception ( $p = 0.015$ ), education level ( $p = 0.002$ ), health insurance ownership ( $p = 0.007$ ), and family support ( $p = 0.005$ ) with a significance value of  $<0.05$ .

Based on the table above in step 4, it can be concluded that the health insurance ownership variable has the most positive influence on dental health services utilization with a B value: +2.881 and Exp (B): value of 17.835, which means that having health insurance will result in people utilizing dental health services at Public health center 17.835 times greater than if you do not have health insurance.

## DISCUSSION

### *The relationship between knowledge with dental health service utilization at Kapasa Health Center Makassar City*

The results of this study, respondents with high knowledge more (34.5%) utilize dental health services compared to respondents who have low knowledge (13.2%). Almost all respondents with low knowledge (86.8%) did not utilize dental health services due to lack of knowledge about dental and oral health, such as about eating foods that contain a lot of sugar such as chocolate and not maintaining dental and oral hygiene easily causing cavities, lack of knowledge about the procedures for brushing teeth properly and correctly, as well as the lack of knowledge about the treatment of cavities and when to visit the dentist.

The results also showed that 38 respondents (65.5%) with high knowledge but did not utilize dental services at public health center because the service time of the public health center was limited which was only until noon while most people worked in the morning and afternoon, and some people preferred to go to a practicing dentist because they feel that the service will be more satisfying than public health center and the service time is usually available at night.

Dwianty (2010) stated in his research that there is a relationship between the utilization of public health center services with the community knowledge. Azikin (2020) states that there was an influence of knowledge on the dental and oral health services utilization. The level of individual knowledge relates to awareness to participate in an activity and have an impact on behavior. Knowledge alone is not enough to make a person change his behavior. Behavior change or adoption is a complex process and takes a relatively long time. Knowledge about seeking treatment may be influenced by many factors. Knowledge is not only obtained

formally but also through experience, besides that knowledge is also obtained through various available information media such as the internet, radio, leaflets, banners, billboards, advertisements, etc (Pratiwi and Raharjo 2017).

### ***The relationship between perceptions with dental health services utilization at Kapasa Health Center Makassar City***

Respondents are dominated by respondents with negative perceptions, from 66 respondents with negative perceptions more (63.6%) did not utilize dental health services at public health center. Respondents with negative perceptions considered that cavities did not interfere with their daily work and if they felt toothache it did not necessarily state that they were suffering from pain as long as it did not interfere with their limbs for activities. According to respondents, it is necessary to require treatment if the ability to carry out daily activities has decreased. The results also showed that a small proportion of respondents with negative perceptions (36.4%) utilize dental health services because some people are influenced by cues to act that come from information from the internet or other media, advice from people around, personal or family experiences.

The results of this study showed that almost all respondents with positive perceptions (96.7%) did not utilize health services, while only a few (3.3%). The public's perception of health is in accordance with the actual health-ill concept, but the community has not visited public health center because of the perceived barrier, and chooses to do their own treatment or seek treatment that is considered better.

This research is in line with the results of Nengsi's research (2020) which shows that perceptions are related to dental and oral health services utilization at Layang Health Center in Makassar City. Napirah (2016) in her research also states that there is a relationship between public perception of health with health services utilization in the working area of Tambarana Health Center, Poso Pesisir Utara District, Poso Regency.

According to Dwi (2009), perception is a process that makes a person choose, organize, and interpret received stimuli into a meaningful and complete picture of his world (Nengsi 2020). According to Twodde in Notoatmodjo (2007), what is perceived as healthy for one person may not be perceived as healthy for another, due to differences in perception. In addition, there are differences in the concept and perception of health and illness in society (Napirah, Rahman, and Tony 2016).

### ***The relationship between attitudes with dental health services utilization at Kapasa Health Center Makassar City***

Respondents are dominated by respondents with negative attitude, from 66 respondents most (66.7%) did not utilize dental health services because they think that dental diseases can be treated at home. Most people if they suffer from toothache will take anti-pain medication first as long as they can still carry out their daily activities. People will visit dental services at public health center if the toothache does not go away after taking anti-pain medication.

Respondents with positive attitude almost entirely (90.0%) did not utilize services compared to who utilize dental health services (10.0%) because even though attitude is a tendency to act, the attitude is not necessarily manifested in action, because the realization of action is also influenced by factors others such as the influence or support of people around and information from the mass media about toothache medicine, alternative treatments, as well as information on the place of practice/clinic of dentists.

Nengsi (2020) in his research states that attitudes are related to dental and oral health services utilization at Layang Health Center in Makassar City. Fatimah (2019) also shows that there is a relationship between attitudes with health services utilization at Kagok Health Center. The definition of attitude according to Engel (2006) states that attitude is a mental and nervous system related to readiness to respond, is organized through experience, and has a direct and/or dynamic influence on behavior (Nengsi 2020).

### ***The relationship between education level with dental health services utilization at Kapasa Health Center Makassar City***

The results of this study indicate that the majority of people in the working area of Kapasa Health Center have a lower education level than the higher education level. The majority of respondents with a lower level of education (83.1%) did not utilize dental health services. In addition, there are more respondents (40.5%) who utilize health services at public health center with a higher education level, compared to respondents with a

lower education level (16.9%). Respondents with a lower education level tend to be resigned if they suffer from a disease including toothache, while respondents with a higher education level are more concerned about their health by seeking information and services to check their dental health, and are able to do self-treatment, if after doing self-treatment the complaints do not go away. The respondents will immediately consult their illness to the dentist so that he can immediately receive the required treatment. The results showed that of 37 respondents who had a higher education level, most (59.5%) did not utilize dental health services at Kapasa Health Center because respondents felt they would be more satisfied if they did dental treatment at a private dentist.

This study is in line with Yollanda's research (2018), which found that there was a relationship between the education level variable with health services utilization at public health center. Ayuni (2017) also states that there was a relationship between education level with dental and oral health services utilization at Maccini Sawah Health Center Makassar City. According to Andersen (1975) quoted from Notoatmodjo (2012), the education level is one of the factors in the health services utilization which are included in the social structure. The education level is the basis for developing insight and making it easier for someone to accept new knowledge, attitudes and behaviors (Yolanda 2018).

#### ***The relationship between health insurance ownership with dental health service utilization at Kapasa Health Center Makassar City***

The results of this study, it showed that respondents who utilize dental health services at Kapasa Health Center were more (31.9%) who had health insurance compared to respondents who did not have health insurance (8.3%). The health insurance owned by the respondent includes the Social Security Administering Agency (BPJS), Health Insurance (ASKES), Healthy Indonesia Card (KIS), etc. Having a health insurance card makes respondents tend to utilize health services compared to respondents who do not have a health insurance card.

The results of this study from 72 respondents who have health insurance, most (68.1%) did not utilize dental health services at Kapasa Health Center because there was still a lack of awareness of the importance of maintaining oral and dental health. The majority of respondents have health insurance in the form of a BPJS card. However, knowledge about BPJS is also still lacking. Respondents did not know that in addition to filling and extracting teeth, health insurance also guarantees or covers the costs of dental and oral health checks with or without complaints or problems in the mouth. Dental and oral examination should be done regularly at least every 6 months.

Ayuni (2017) in her research states that there is a relationship between health insurance ownership with dental and oral health services utilization. Yollanda (2018) also states that there is an influence of health insurance ownership on the health services utilization at public health center. The factor of health care insurance is one of the important factors for community, by having health care insurance, people feel more protected if one day they are stricken with disease because by having health insurance they can be freed from medical expenses (Ayuni, Nurhayani, and Palutturi 2016).

#### ***Relationship between health information with dental health services utilization at Kapasa Health Center Makassar City***

The results showed that respondents are dominated by those who get health information. This shows that the level of health information received by the public is already a lot, this is influenced by the increasing number of health information currently circulating through various media, especially social media. However from 78 respondents who get health information, most (70.5%) did not utilize dental health services because even though they had received a lot of information, the influence of the current flow of information brought two different things where every positive information received by respondents also sometimes accompanied by negative things, such as information that in general dental health services at public health center will be unsatisfactory due to the limitations of care and dental health equipment which discouraged respondents from having their teeth checked. There are also respondents who have got information but still do not care about their dental health and only visit dental health services only when they feel toothache that has interfered with their daily activities. While almost all respondents who did not get information (88.9%) did not utilize dental



health services, this also proves that health information has a positive impact on behavior so that they can carry out a healthy lifestyle.

The results of this study are in line with Humairah's research (2019) which concluded that there was no significant relationship between dental health services utilization with health information at Sudiang Raya Health Center, Makassar City. This is also in line with the research of Tasya et al (2016) which stated that information was not related to dental and oral health services utilization by patients at the Hospital of Syiah Kuala University, Banda Aceh.

According to Lawrence Green in Notoatmodjo (2005), health information is part of the enabling factor, namely one of the factors facilitating behavior for the occurrence of health behavior (Muslimin 2019). Sources of health information are also one of the important factors in influencing patient decisions in utilizing health services. This is because no matter how good the quality of a health service is, if people have never heard of it and are not sure that they will provide good service, they will not utilize the service (Fatimah and Indrawati 2019).

#### ***The relationship between health facilities with dental health services utilization at Kapasa Health Center Makassar City***

The results of this study are not in accordance with the theory where health care facilities are indeed one of the factors that influence the utilization of dental health services. However, the results showed that the majority of respondents assessed the health facilities at Kapasa Health Center to be good with the treatment rooms were clean and well organized even though the rooms were not too big, and there were several posters about dental and oral health. The results of this study show that from 89 respondents who assessed the health facilities to be good, most (76.4%) did not utilize dental health services at Kapasa Health Center because there were factors that made it possible for respondents to not have time to utilize dental health services at Kapasa Health Center due to working hours and so on.

Variani's research (2020) states that there is no relationship between dental health service facilities with dental health services utilization for pregnant women at Oesapa Health Center, Kupang City. Tasya, et al (2016) also stated that the utilization factor of health facilities did not have a significant relationship with the utilization of dental and oral health services by patients at the Dental and Oral Hospital (RSGM) Syiah Kuala University, Banda Aceh.

Health facilities can also influence a person's demand for health service utilization. The availability of complete facilities will increase the utilization of health services. The availability of health facilities and facilities is one of the factors that can encourage or motivate people to take treatment efforts. However, if a health service does not have complete facilities, the community will choose another place/hospital that is more complete. Even though the community has the intention and desire to carry out treatment efforts, if health facilities are not available in the area then the community will return to choosing other healers, either traditional treatment or choosing to treat their disease themselves and even worse if they do not take treatment efforts with the hope that the disease will heal by itself (Basith 2019).

#### ***The relationship between family support with dental health service utilization at Kapasa Health Center, Makassar City***

The results showed that respondents who utilized dental health services more (32.3%) with supportive family support compared to those who did not support it (12.9%). This shows that the family is influential in decision-making in the use of dental health services by providing support such as escorting and accompanying during dental examinations and treatment, and providing advice on the selection of dental treatment that will be carried out by respondents. While family support is less supportive but utilizes dental health services at public health center because it is influenced by the urgency of the need for dental health checks such as when they have problems with their teeth and mouth, only encouragement from within or their own self-confidence that encourages them to take advantage of dental health services at public health center.

The results of this study, from the 31 respondents with less supportive family, almost all (87.1%) did not utilize dental health services at public health center because families rarely gave advice and respondents also tended to rarely ask for opinions from family about dental health, family members who do not have knowledge

about dental health, and some family members of respondents who have a lack of awareness in reminding them to check their teeth regularly.

The results of this study, from the 65 respondents who had supportive family, most (67.7%) did not utilize dental health services at public health center because even though they get support from their families, respondent's awareness of the importance of dental health was still lacking and some respondents also preferred alternative services or other treatments. So we can argue that supportive family does not necessarily make a person take good practices, otherwise family support that is less supportive does not necessarily make a person take bad or bad practices.

Humairah (2019) stated that there was a significant relationship between family support with dental health services utilization at Sudiang Raya Health Center. Elita (2013) also concluded that there was an influence of the level of family support on the utilization of health services at Onan Hasang Health Center, Pahae Julu District. According to Green in Notoatmodjo (2007) also explained that one's behavior is influenced by reinforcing factors, such as family and parental support. Family is the closest group of consumers. Where families have a higher intensity of meeting than others to discuss the selection of dental and oral health services, in this case respondents have more opportunities (Barmo, Balqis, and Nurhayan 2013).

### ***The relationship between health workers support with dental health service utilization at Kapasa Health Center, Makassar City***

The results of this study, the support of health workers at Kapasa Health Center is quite high. Based on observations, the dentist was friendly and polite to the respondent when providing dental and oral health services at the public health center, the dentist was at the place when the respondent was seeking treatment, and the administrative counter officer was quick and responsive in serving the respondent reporting to the registration counter. However, some respondents stated that dentists did not directly and quickly provide dental and oral health services and did not provide explanations/knowledge to respondents about their dental and oral diseases and its development diseases. This is what causes even though respondents have got support from health workers but respondents also feel dissatisfied so they are reluctant to reutilize dental health services, it can be seen from 94 respondents who have got support from health workers, most (74.5%) respondents chose not to utilize dental health service at Kapasa Health Center.

This research is in line with Variani's research (2020) which shows that there is no relationship between the services of dentists and dental nurses with the utilization of dental health services at Oesapa Health Center, Kupang City. Support from health workers, including doctors, nurses, and administrative counter staff, is needed to increase the utilization of health facilities by the community. One of the main requirements of health services is to have a quality service that is able to satisfy service users and providers in accordance with predetermined standards. Thus, to increase the utilization of public health center services, it is necessary to support the services of public health center workers who are oriented to quality and patient satisfaction (Purba 2011).

### ***Multivariate Analysis***

The results of the logistic regression test, the variables that influenced dental health service utilization at Kapasa Health Center are the variables of knowledge, perception, education level, health insurance ownership, and family support. The variable that most contributes or has a positive influence is health insurance ownership.

According to Law No. 40 of 2004 concerning National Social Security System and Law no. 24 of 2011 concerning Social Security Administering Council states that every Indonesian citizen is required to have health insurance managed by BPJS. Kapasa Health Center as one of the first-level health facilities and a government-owned health service provider should improve health promotion or counseling on health insurance so that people have a deeper interest in using the health insurance to carry out examinations and treatments in the Public health center. In addition, the polyclinic of Kapasa Health Center must also improve health education, especially about the importance of dental and oral examinations by health workers at least once every 6 months even without any complaints of toothache.

## CONCLUSION

Based on the results of this study, it was concluded that among the behavioral determinants studied, there was a significant relationship between knowledge, perception, attitude, education level, health insurance ownership, family support with dental health service utilization at Kapasa Health Center. Meanwhile, there is no significant relationship between health information, health facilities, health workers support with dental health service utilization at Kapasa Health Center. The most influential factor is health insurance ownership with a positive direction.

Kapasa Health Center in Makassar City is expected to provide education and socialization in order to improve patient behavior regarding awareness about dental and oral health, so that it can increase the utilization of health services in Polyclinic of Kapasa Health Center.

## Declaration of Conflicting Interest

*The author (s) declared no potential conflict of interest with respect to the research, authorship, and/or publication of this article*

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