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LIST OF ORAL PRESENTATION

FACTORS AFFECTING UTILIZATION OF NATIONAL HEALTH INSURANCE (JKN) IN DENTAL HEALTH AMONG COASTAL COMMUNITY IN WATU ULO, JEMBER

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Abstract

The objectives of this study are to identify factors associated with national health insurance (JKN) utilization in dental health at primary health cares among PBI participants in a coastal community in Watu Ulo, Jember. A survey was conducted among 104 adults enrolled incapable polis insurance (PBI JKN) living in Watu Ulo in February 2018. A descriptive statistic was done to analyze the socioeconomic characteristics, knowledge of dental insurance coverage and utilization of the insurance in dental health at primary health cares. Multiple regression was performed to examine the determinants of dental insurance utilization. The mean score of knowledge on dental health coverage was 2.28 (SD=1.16) with the minimum score at 0 and maximum at 5. More than 86% of the respondents never use their insurance in any dental services provided at primary health centers. The knowledge on dental insurance coverage was strongly associated with utilization of the insurance ($p = 0.001$), while four other factors, age, sex, education, and occupation were not associated with utilization of dental insurance. The knowledge of insurance coverage influenced the utilization of dental health insurance. It is required more efforts on dissemination knowledge on the coverage of national health insurance on dental health to achieve equity on health among the coastal community.

Keywords: dental insurance, dental care utilization, coastal community.

1.Introduction

Indonesia is one of the largest archipelagic countries in the world and has a long coastline of 81,000 km. Around 60% of the Indonesian population lives around the coastal area [1]. Coastal communities are communities that closely connected to the coastal systems [2]. This community's livelihood depends on the coast, from the natural resources to services in the marine system. Nowadays, Indonesia aims to develop a strong and independent maritime country by increasing the efforts for developing marine and coastal resources [3,4]. Development of human resources is important to achieve this national goal. Consequently, better health care needs to be improved for quality human resources.

Dental health plays an important role for general health to develop quality human resources in Indonesia. Nonetheless, there are an increasing proportion of dental health problems in Indonesia. Data of National Basic Health Research (RISKESDAS) showed dental health problems were reported by 25.9% people in 2013, a 2.7% increase over 2007 [5]. This increasing number showed the need for dental health insurance to ensure equity health services across this nation.

Indonesia started a new health insurance system named JKN (Jaminan Kesehatan Nasional) in January 2014. This national health insurance is managed by BPJS (Badan

Penyelenggara Jaminan Sosial) as mandated by law. Enrolment scheme of JKN consisted of two types polis holders. These are including incapable polis insurance (PBI) which paid by the Indonesian government and capable polis insurance (non-PBI) [6]. JKN covers medical and nonmedical benefits. Medical benefits of JKN are health services which include promotive, preventive, curative, rehabilitative. Non-medical benefits are services in the form of accommodation benefits and ambulance [7]. The insurance benefits of JKN also include dental treatments.

Dental health benefits of JKN are some primary care and advanced care. However, this national health insurance doesn't provide all kinds of dental treatments and exclude some clinical and pharmacy treatments [8]. General practitioners provide primary dental care services at primary health centers (Puskesmas) or private clinics and private practices. Moreover, advanced dental services are provided by dental specialists at hospitals [7].

Watu Ulo is a coastal area in Jember, East Java which well-known for its beautiful beaches. Maduranese dominates the communities. A study found that human resources were below the average among 60% of the communities in this region [9]. In 2017, there were 810 JKN participants in this region [10]. However, data obtained from Puskesmas Sabrang, where this region is one of the service areas, showed only around 40 patients visited dental health centers in a month. This is a small number considering there were in total 14,598 JKN participants in the Sabrang health center [10]. Therefore, this study aims to identify factors associated with national health insurance (JKN) utilization in dental health at primary health cares among PBI JKN participants in a coastal community in Watu Ulo, Jember and assess their knowledge of dental insurance coverage.

2. Methods

This is a quantitative study with observational methods using a cross-sectional approach. Coastal communities are those who live within 20 km of the coast [11]. The location of this study was coastal communities in Watu Ulo, Sumberejo village, subdistrict Ambulu, Jember. The samples are 104 of PBI JKN participants aged 15 to 64 years in these communities. Data was collected in February 2018. The ethical clearance was approved by the Ethical Committee of Faculty of Dentistry, University of Jember.

Independent variables of this study are sex, age, education, occupation and knowledge of dental insurance coverage. The dependent variable is the utilization of national health insurance in dental health. Questionaries of knowledge on dental insurance coverage consisted of 9 items whereas the utilization of dental insurance also consisted of 9 questions. The questioners were multiply closed-ended questions. The correct answers for knowledge questioner coded as '1' and wrong answers ceded as '0'. Scoring method for utilization questioner was based on the frequency of dental service utilization which coded '0' for never, '1' for sometimes, '2' for always.

The questioners were made based on official service guideline of JKN dental coverage in primary cares. The JKN service coverage in the primary oral health is as follows:

a. service administration which includes administration fees for participant registration, provision and

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provision of referral for treatment to advanced health facilities if first-level health facilities can not handle the patient's illness;

    b. Examination, treatment, and consultation with medical experts;

    c. Premedication, post-extraction drugs;

    d. oro-dental emergency;

    e. extraction of primary teeth (with topical anesthesia/infiltration);

    f. removal of permanent teeth without complications;

    g. Dental filling with composite lift / GIC;

    h. Tooth cleaning / dental scaling (once a year);

    i. denture prosthesis [7].

The correct answers for knowledge questioner coded as '1' and wrong answers ceded as '0'.

Data of the respondent characteristics and questioner of the knowledge and utilization was analyzed in the descriptive table. Multivariate analysis was performed using a multiple regression model on the factors related to the utilization of national dental health insurance in primary cares. This model included sex, age, education, occupation, knowledge as predictors. All analyses were performed using SPSS version 19. A statistical significance level of 0.05 was used in the analysis

3.Results

This study identified the factors associated with the utilization of JKN in dental health among coastal communities whose their insurance paid by governments (PBI). As shown in Table 1, in total there were 104 participants which mostly female (53.8%).

Table 1. Characteristic of the respondents (N=104)

Variables	N	%
Sex		
- Male	48	46.2
- Female	56	53.8
Age		
- 15-24	32	30.8
- 25-44	26	25.0
- 45-60	30	28.8
- < 60	16	15.4
Education		
- No education	17	16.3
- Primary education	55	52.9
- High schools	32	30.8
Occupation		
- Fishermen	44	42.3
- Housewives	36	34.6
- Student	20	19.2
- Others (farmers&shopkeepers)	4	3.9

Mean age of the samples was 38.84, and about 30.8% of the participants were age 15-24 years and only 15.4% were age 60 years and older. The samples mostly had low education that 52.9% of participants were in primary education and 16.3% had no education. In this study, 42.3% of the samples were fishermen, and 34.6 % were housewives.

Regarding the knowledge on the insurance coverage in dental health, the mean score of knowledge was 2.28 (SD=1.16) with the minimum score at 0 and maximum at 5. Majority of the participants answer drug prescriptions correctly after dental treatments were

included on the insurance services (51%). As presented in Table 2. this service was the highest percentage of the correct answers among other dental treatments. Tooth extraction was the second highest percentage which about 48% of the respondent knew that this treatment was covered in the insurance. The following treatments that less popular among this community was premedication (37.5%) and dental emergencies (33.7%). Less than a quarter respondents knew that dental filling was included in the insurance services. This study found very few samples had information that dental cleaning (7.7%) and denture (5.8%) were covered in JKN.

Table 2. Knowledge of insurance (JKN) coverage in primary dental health (N=104).

Dental services	N	%
Post-treatment drugs	53	51.0
Tooth extraction	50	48.1
Premedication	39	37.5
Dental emergencies	35	33.7
Dental filling	25	24.0
Dental cleaning/scaling	8	7.7
Denture	6	5.8

Among 104 PBI JKN holders, the mean score of JKN utilization in dental health was 0.70 (SD=1.56) with the minimum score at 0 and maximum at 6. In general, the utilization of JKN insurance in dental treatment was very low. As shown in Table 3, the majority of the respondents never use their JKN for dental treatments. Only 14.4% of respondents reported always use their JKN insurance for drugs prescription whenever they had oral health

problems. In a condition of emergencies related to oral health, 11.5% of responded reported had ever use JKN but not always. The utilization of JKN for tooth extraction was reported by ten respondents (9.6%), whereas scaling only six respondents (5.8%). A similar figure was found for JKN utilization in routine oral health examination and dental filling which reported by four people (3.8%). All respondents of this study never had denture treatment using their JKN in health centers.

Table 3. Utilization of JKN in dental services at primary health centers (N=104).

Dental services	Never		Sometimes		Always	
	N	%	N	%	N	%
Prescription drugs	87	83.7	2	1.9	15	14.4
Dental emergencies	92	88.5	12	11.5	0	0
Tooth extraction	94	90.4	10	9.6	0	0
Tooth cleaning (scaling)	98	94.2	6	5.8	0	0
Routine oral health examination	100	96.2	4	3.8	0	0
Dental filling	100	96.2	4	3.8	0	0
Dentures	104	100	0	0	0	0

As presented in Table 4, this study found that the independent variable which related to utilization was the knowledge of insurance coverage. This positive association indicates the higher the knowledge on the insurance,

people are more likely use the insurance for dental treatments (p=0.002).

Table 4. Multiple linear regression of determinants of JKN dental insurance utilization (N=104)

Variables	B	Sig
Sex		
- Male (Ref)		
- Female	-0.230	0.390
Age	0.024	0.861
Education		
- No education(Ref)		
- Primary education	0.027	0.856
- High schools	0.015	0.940
Occupation		
- Fishermen (Ref)		
- Housewives	0.219	0.431
- Students&others	0.307	0.195
Knowledge	0.338	0.001

4.Discussion

This study aimed to examine determinants of the utilization of national health insurance (JKN) in dental health among PBI participants in coastal communities of Watu Ulo, Jember. This study found very low utilization of JKN insurance in dental health. PBI JKN participants consisted of people who categorized as poor and disadvantaged [6]. The income of the most family in this community depends on the sea as fishermen who are not a routine income. Therefore, it requires contributions from the government, especially for the majority of fishers who cannot afford the regular payment of the JKN [12].

In this study, knowledge of the JKN coverage of dental health was very low. Majority of PBI JKN holders had no information on dental service provided by the insurance. This may be related to the low educational level of the respondents. It is known that poor educational level may lead to low income, unemployment, and poor occupational status. Financial costs and a low level of information about the importance of oral health could be a hindrance to dental care [13].

Utilization of JKN in dental health was very low. This study found that individual knowledge on dental insurance coverage is the only predictor that statistically significant for dental insurance utilization. An increase of knowledge on the insurance coverage is associated with an increase in utilization. This finding was consistent with prior studies in some region in Indonesia. A study in Rowosari primary health center, Semarang found a significant relationship between knowledge level (p=0,00) of JKN participants to the utilization of health care services in the primary health center [14]. The other study among JKN participants in Jumpadang Baru health centers, Makassar, Sulawesi showed a relationship between knowledge, attitude and family support with JKN Health Care Service utilization [15]. The better the level of community knowledge, the better public awareness of the use of health facilities. This awareness can increase the utilization of health services which can improve the community health status [16].

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5. Conclusion

The results showed the majority of the PBI participants in coastal communities never use JKN for dental treatments. In this study, the knowledge of the insurance coverage played an important role in the utilization of the insurance.

People with less knowledge are also less likely to use the insurance for seeking dental treatment. Given the low level of education in this community, it poses a particular challenge for policymakers to find ways to effectively reach those people to give a better understanding on the JKN scheme.

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