Dental care necessity at productive age in Cilayung Village, Jatinangor Districts Sumedang Regency

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ABSTRACT

Introduction: The need of dental care is defined as a collection of dental and oral treatment in which according to dental personnel should be obtained by a certain period in order to achieve good dental health status. According to WHO, the productive age is the age group between 35-44 and is considered as the standard age for checking the adult oral health condition. The purpose of this research is to obtain the necessity of oral health data at productive age in Cilayung village. **Method:** The research method was descriptive with cluster sampling technique. Samples of 80 respondents were obtained by pathfinder surveys technique. The necessity of dental care was assessed using WHO oral health surveys and the dental condition of respondents were checked using mouth mirror. **Result:** The results shows that the highest number of caries prevention is ~~at~~ as many as 80 people (100%) and the need for one surface treatment as many as 75 people (93.75%). **Conclusion:** The research concluded that the people in Cilayung village is in high need of caries and surface treatment.

Keywords: Oral health care necessity, productive age, Cilayung village

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INTRODUCTION

Dental caries is the most common dental disease in Indonesia and can affect people from every level of society.[1] The results of Riskesdas[2] show the highest proportion of people at 35-44 years of productive age who have dental and mouth problems (based on perceived need) is 30.5%, while the proportion based on expressed needs is 10.3%.[2]

Based on Riskesdas data and indications of normative dental care needs at the 35-44 year old people is still high but the ability to get dental care at that age is still low due to busy work, time, cost, and attitude.[3] Dental and oral health problems occuring at the age of 35-44 years old is indicated by the prevalence of the highest DMFT index.[4]

Component D (caries) reflects the need for dental care (normative needs), the high number of component D (caries) shows the increasing normative needs. Component F shows expressed needs. Dental care needs are defined as a collection of dental and oral care which according

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to dental and medical personnel must be obtained by a person in a certain period of time in order to achieve good dental health status. The dental and oral health of the patient is strongly influenced by personal beliefs, cultural background, social factors, education, and environment.[5]

The largest population in Cilayung village is a productive age population.[6] In Cilayung village there is no hospital or practice place of doctors or dentists.[7] Indonesians have dental and mouth problems in the last 12 months recorded an average of 25.9%. 31.1% of them received treatment from dental personnel (dentists, dental nurses, or dentists specialists), while another 68.9% were not treated.[2]

METHODS

This research type was descriptive research by doing survey in Cilayung Village. The population taken in this study was the productive age society in Cilayung village aged of 35-44 years based on WHO Oral Health Surveys 2013. The sampling technique used is cluster sampling technique with pathfinder surveys method, which aim to cover the major population groups who generally suffer from different diseases in terms of their type and severity. This method can also be used to estimate the number of subjects for each age group in each location.[8]

Based on the pathfinder surveys sampling method, the number of subjects to be examined in each age group index ranges from 25-50 for each region, depending on the prevalence and severity of an area. A minimum sample of 80 people with a ratio of 40 men and 40 women in 2 RW namely RW 002 and RW 009 Cilayung are willing to follow this research and these numbers are obtained through pathfinders' survey. The tools used in this study include excavator, glass mouth, mask and gloves, mouth rinse, 70% alcohol, tissue/cotton, flashlight, stationery, check forms from WHO and informed consent.

The examination is performed by one person who has underwent the stages of the calibration procedure. The examiner records the identity of the examining subject on the examination form, such as name, age, sex, occupation, address. The informed consent will then be given to the subject whether they approve or disapprove of the examination. the subject of the study who agreed, they were asked to sit on the chair for having dental examination to determine the dental health status. The researcher will perform systematic inspection of the subject's teeth, the assessment was started from the upper right region, the upper left region, the lower left region, and lastly the lower right region. The examination result will then be recorded on the inspection form and on which there is two check boxes for each jaw. The top of the box is used to fill the subject gear status and the bottom box is used to fill dental care needs. The box is filled with the code located to the right of the box.

In the upper box is filled with the patient's tooth status code, which is the code of 0 is for healthy teeth, code 1 is for dental holes/caries, code 2 is for caries disarray, code 3 is for untreated blowing, code 4 is for tooth removed or missing Due to caries, code 5 is for teeth removed or lost for other reasons, code 6 is for fissure sealant, code 7 is for abutment bridges and special crown/ veneer/implant, code 8 is for non-eruptive teeth, code T for trauma (fracture), code 9 is for teeth not including the above criteria. In the bottom box filled with the patient's dental needs code, the code of dental care needs such as P code for the prevention and treatment of caries,

F codes is for fissure sealant, code 1 is for one surface coat, code 2 is for patching of two or more surfaces, codes 3 is for prostheses/ bridges, code 4 is for veneers/coatings (may be recommended for aesthetic purposes), code 5 is for pulp treatment And restoration, code 6 is for retraction. Data collected then processed and presented in tabular form.

RESULTS

The results accumulated based on the research on dental care needs at productive age range of 35- 44 years old conducted in Cilayung Village Jatinangor District Sumedang is presented in Table 1.

In Table 1 it can be seen that the respondents who are residents of Cilayung Village Jatinangor are 80 respondents. Most of the respondents have job as a housewives that is 28 respondents (35%).

Table 2 shows the last education level of 80 respondents from Cilayung Village Jatinangor.

Table 1. Frequence distribution of the respondents occupation

Occupation	Frequency	Percentage
House wife-	28	35
Enterpreneur	14	17.50
Civil employee	9	11.25
Private employee	8	10
Village officials	5	6.25
Unemployment	5	6.25
Construction laborers	3	3.75
Security personnel, leanliness andEnvironmentalorderinunpad	2	2.50
Booth maker	2	2.50
Driver	1	1.25
School guard	1	1.25
Laborers	1	1.25
Army	1	1.25
Total	**80**	**100**

Tabel 2. Frequnce distribution of respondents education level

Education	Frequency	Percentage
Unschooling	1	1.25
Elementary	26	32.50
Junior high school	13	16.25
Senior high school	28	35
College	12	15
Total	**80**	**100**

Tabel 3.Dental health status at productive age based on number of respondents

Code	Status	Total respondent	Percentage
0	Healthy teeth	79	98.75
1	Caries	79	98.75
2	Filling plus caries	5	6.25
3	Filling without caries	2	2.50
4	Extracted teeth due to caries	53	66.25
5	Extracted teeth due to another reason	12	15
6	*Fissure sealant*	0	0
7	Denture, abutment tooth, crown, veneer	1	1.25
8	Unerupted tooth	14	17.05
T	Trauma/fracture	3	3.75
9	None of the above Total	II	13.75

Most of the respondents had a senior high school education (SMA) that is 28 respondents (35%).

Table 4.Dental health status at a productive age based on number of teeth

Code	Status	Total number of teeth	Percentage
0	Healthy teeth	1450	56.64
1	Caries	787	30.74
2	Filling plus caries	6	0.23
3	Filling without caries	6	0.23
4	Extracted teeth due to caries	198	7.73
5	Extracted teeth due to another reason	15	0.58
6	*Fissure sealant*	0	0
7	Denture, abutment tooth, crown, veneer	1	0.03
8	Unerupted tooth	34	1.32
T	Trauma/fracture	3	0.11
9	None of the above	60	2.34
	Total	**2560**	**100**

Table 5. Dental care requirement at productive age based on the number of respondents

Code	Treatment	Total responden	Perscentage
0	None	0	0
P	Caries prevention	80	100
	Fissure sealant	11	13.75
1	One surface filling	75	93.75
2	Two surfaces filling	47	58.75
3	Denture/crown and bridge	59	73.75
4	*Veneer*	5	6.25
5	Treatment and restoration	11	13.75
6	Tooth extraction	51	63.75

Dental health status of 80 respondents showed that 79 respondents (98.75%) had healthy teeth in their oral cavity and 79 respondents (98.75%) had dental caries (Table 3). Table 4 exhibits that the dental health status of 80 respondents showing most of the respondents has healthy dental status with the amount of 1450 teeth (56.64%).

Table 5 shows that all of 80 respondents indicated needing of caries prevention care is at 100%. Table 6 shows the result that dental care needs of 80 respondents indicated that productive age in Cilayung need dental care based on the number of teeth requiring caries prevention care were 1483 teeth (57.89%).

Table 6. Dental care requirements at productive age based on number of teeth

Code	Treatment	Total number of teeth	Percentage
0	None	0	0
P	Caries prevention	1482	57.89
F	*Fissure sealant*	31	1.21
1	One surface filling	509	19.88
2	Two surfaces filling	122	4.76
3	Denture/crown and bridge	211	8.24
4	*Veneer*	10	0.39
5	Treatment and restoration	13	0.50
6	Tooth extraction	182	7.10
	Total	**2560**	**100**

DISCUSSION

The depiction of dental care needs at productive age in Cilayung based on Table 3 shows that dental health status of productive age population in Cilayung is 79 respondents (98.75%) and Table 4 shows that 1450 respondents (56.64%) have healthy teeth. The results of this study indicate that the number of healthy teeth is very high, but still visible signs of early caries lesions of spots or white spots, discoloration or rough stains that can lead to more severe caries. It is important to be noted to prevent oral dan dental disease.

Table 5 shows the results of 80 respondents (100%) requiring caries prevention care. Maintaining oral hygiene is the best way to prevent the occurrence of mouth disease, such as caries and gingivitis.

Table 2 shows from 80 respondents who were examined, as many as 28 respondents (35%) graduated from high school. Survey conducted by Maulana[9], said that people who have a high level of education will have a better knowledge and a good attitude regarding health in general. Hence, it will affect their behavior towards healthy living and can maintain a good dental health. Generally, people with higher education level have higher economic status so helps in taking care of dental hygiene as recommended by dentist. Previous research conducted by Setyowati[10] di Napier suggests that there is a correlation between socioeconomic factors and the status of tooth loss.[9] According to Blum's theory in Kiswaluyo[11] a person's dental health status can be affected by one of them is the level of education, where the higher level of education The more knowledge will be gained.[11]

Table 3 shows that the highest dental health status of 35-44 years old was the respondents who had carious teeth in the oral cavity of 79 respondents (98.75%) and Table 4 shows that dental health status based on the number of teeth examined was 787 teeth (30.74%) who had caries. Based on Benedicto's[12] research in Brazil that caries and periodontal diseases are major health problems affecting most of the adult population over 35 to 40 years.[9] This is reinforced by research in the Jakarta Public Health Center conducted by Indirawati and Lannywati[13] in 2007 which stated that the increase dental caries cannot be separated from the factors that cause dental caries, namely direct and indirect factors. Age is an indirect factor that causes an increase in dental caries, with 35 years of age as much as 70%.[13]

The absence of medical prectices including dentists in Cilayung and the distance to the nearest Puskesmas has a direct affect to their dental health status and the dire need of proper care and treatment. The location of Puskesmas located in the center of Jatinangor, allows the community to easily conduct routine visits to the Puskesmas, so that cases of dental caries in the community can be handled quickly, resulting in the number of patients with an indication of deprivation is reduced. Therefore, the number of fillings is greater than the number of tooth extractions. Research conducted by Kiswaluyo[11] in 2012 concludes that proximity or distance of health services with shelter is a major factor to consumer demand in the utilization of health services.

CONCLUSION

The research concluded that the people in Cilayung village is in high need of caries and surface treatment.

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