

Distribution of Caries Based on PUFA Index on College Students of Student Study Service (KKN) Participants

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DISTRIBUTION OF CARIES BASED ON PUFA INDEX ON COLLEGE STUDENTS OF STUDENT STUDY SERVICE (KKN) PARTICIPANTS

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ABSTRACT

Adolescence is a period which the activity of caries and periodontal disease increases due to high consumption of cariogenic food and lack of maintaining healthy teeth and healthy mouth. This research aimed at describing caries based on PUFA index on 45 college students. The data regarding caries condition was provided in table. The research result showed that pulpitis cases was found in 345 teeth, fistula case in 8 teeth, meanwhile, ulcer and abscess case were not found. The condition above showed that caries based on PUFA index on college students was included in high category.

Keywords: Caries, PUFA index, College Students

INTRODUCTION

In the world, caries was a problem with the highest prevalence and significantly, it caused social effect, influenced 60-90% of school-age children and most of them were also teenagers (Dixit, et al., 2013). The recent study reported that there was an increase of high caries either on children or adult people. Caries trend had a tendency for being serious and involved many teeth. Serious caries that was not treated could cause pulpitis, sepsis, and infection which could widen to periodontal tissue, and sometimes it could cause serious complication such as cellulitis and brain abscess (Alkarimi, et al., 2012). Mouth cancer was in second ranking on males and third ranking on females, meanwhile, oropharynx cancer was in fifth ranking in Southeast Asia (World Health Organization, 2013). East Java Province had high DMF-t index, which was 5.5, with *decay* number in 1.6, *missing* in 3.8, and *filling* in 0.08. College students of Student Study Service [*Kuliah Kerja Nyata (KKN)*] participants were 20 – 24 years old which according to *Riskesdas* that DMF-t number for the age of 15-24 years was 1.8 (Balitbangkes, 2013). Adolescence was a period which the activity of caries and periodontal disease increased due to high consumption of cariogenic food and the lack of maintaining healthy teeth and healthy mouth.

Furthermore, there were various indexes for measuring dental and oral disease. PUFA index gave information about clinical consequence from untreated caries, such as pulp abscess that was perhaps more dangerous rather than the lesions of caries. Criteria for PUFA index were pulpitis, ulceration, fistula, and abscess. PUFA score for an individual was about 0-32 (Monse, et al., 2010; Benzian, et al., 2011; Monse, et al. 2012; Mehta, et al., 2013; Praveen, et al., 2015).

METHOD

The subject of this descriptive research was 45 college students of KKN participants in phase I at Glingseran village, Wringin sub-district, Bondowoso district on 21st February 2017. The data that was about variable of this research (caries based on PUFA index) was collected through dental check. The instrument and material which were utilized were glass mouth, oral sonde, forcep, *nierbekken*, *dappen glass*, tampon basin, *handscoon*, masker, mouthwash glass, *tissue*, *headlamp*, alcohol, *cotton roll*, and tampon. The collected data was analyzed descriptively and then, it was provided in table and chart.

RESULT

Table 1. Distribution of Dental Disease with PUFA Index Based on the Total of Teeth

Type of Dental Disease	Total of Teeth	Percentage
Pulpitis	345	24%
Fistula	11	0.8%
Ulcer	0	0%
Abscess	0	0%
Total	1440	

Distribution result of teeth check on college students of Student Study Service (*KKN*) participants was provided in Table 1.

DISCUSSION

Distribution of caries based on PUFA index on college students of Student Study Service (*KKN*) participants in phase 1 at Glingseran village, Wringin sub-district, Bondowoso district, Indonesia were: pulpitis (24%), fistula in 8 teeth (0.8%), meanwhile, ulcer and abscess were not found. This showed that high case was due to untreated dental disease, particularly pulpitis in adolescence. In addition, the total of other cases was less or even was not found in check time. In this case, perhaps the three cases had ever been occurred, but in the check time, it had healed. Thus, the occurrence number seemed to be small. According to the age group, the most number of dental treatment proportion was in the age of 6-18 years (69.4%), meanwhile, in the age of 19-20 years was 30.6%. The most susceptible age toward caries was in the age of 4-10 years which was in baby teeth and in the age of 12-18 years which was in adult teeth (Wong, et al., 2008).

Caries was a common chronic disease that was occurred in adolescence and it could cause negative impact toward either individual welfare or group when they had activities daily (Novita, 2016). In the age of more than 14 years, it was the more the time for being exposed by sugary and cariogenic food toward the teeth. If it was not supported by well dental and oral cleanliness, it would be occurred easily demineralization. As the effect, caries could be occurred. The biggest proportion of caries was found on students or college students which were 42.1% (Radiah, et al., 2013; Veiga, et al., 2016).

In addition, it was occurred hormonal change on adolescence to the early adulthood. The hormonal change could cause the occurrence of oral problem such as gum swellings. Hence, it could make oral cleanliness less. Nevertheless, this could cause the increase of caries occurrences (Tarigan & Rasinta, 2013; Lucaks & Largaespada, 2016).

CONCLUSION

According to the result of data analysis, it could be concluded that the occurrence of caries which was based on PUFA index on college students of Student Study Service (*KKN*) participants in phase 1 at Glingseran village, Wringin sub-district, Bondowoso district was in high category.

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