

# The Level of Knowledge About Health and Dental Care in Non-Dental Medicine Students

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## ABSTRACT

**Background:** Knowledge is a factor influencing one's hygiene. Dental and oral health can be supported by the awareness to maintain and prevent problems with the treatment of oral and teeth. **Objective:** This study aims to determine the level of student knowledge about health and dental and oral care. **Method:** This research was descriptive research using the questionnaire method. Sampling was obtained by random sampling with a sample of 97 people. **Results:** The results showed that as many as 89.5% of female respondents and 92.3% of male respondents had a high level of knowledge about oral health. As many as 80.7% of female respondents and 84.6% of male respondents had a high level of knowledge about dental and oral care. As many as 100.0% of respondents from the health faculties and 88.6% of respondents from the non-health faculties had a high level of knowledge about dental and oral health. As many as 84.6% of respondents from the health faculty and 81.4% of respondents from the non-health faculty had a high level of knowledge about dental and oral care. **Conclusion:** The level of knowledge about health and dental and oral care was found higher in males than females, as well as in respondents from the health faculties compared to the non-health faculties.

**Keywords:** knowledge, oral health, dental and oral care

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## INTRODUCTION

The society might be familiar with the health problems that are part of the level of welfare that every individual must have and aware. Health is a valuable asset that must be owned by every individual, with a healthy body we can work and carry out daily activities properly and optimally. This is what we must realize and keep in mind so that we hope to be able to be free of the slightest disease (Statute number 36 of 2009 concerning health).

A single effort to avoid the disease is to understand and know the disease. We must know the causes, preventive measures, spread, until the handling of the disease[1,2]. Therefore, it is expected that a high inclination of awareness and determination will be possessed by each individual to maintain their own health[3]. From this explanation, it can be interpreted that rising the understanding of the disease has an important role in efforts to achieve a healthy life[4,5]. Knowledge is one of the factors that affect human hygiene[6]. But nowadays, it shows the opposite fact as our society tends to be ignorant and neglectful to their health problems for example in maintaining oral health and hygiene[7].

The oral cavity has an important role in everyday life[8,9]. It is an important part of the digestive system that makes us able to carry out activities through the energy we get from food. The oral cavity is the beginning of the entrance of food, as a balance of the body so if it is disturbed it will also interfere with other activities undertaken by the body[10].

Based on the 2018 Basic Health Research, 54.2% of Indonesian people experienced dental and oral health problems but the data revealed only 9.7% of the respondents came to get treatment from medical staff[11]. According to the research of Afiati et al, explaining that the right knowledge affects health behavior in improving health especially dental and oral

health[12]. The lack of public awareness to maintain oral health and hygiene results in high rates of disease regarding this matter[13]. Caries, gingivitis, and other periodontal diseases are problems that seem difficult to treat. The high prevalence rate shows that there are still many of our people who do not understand the problem, so they consider the problem to be normal and common. If the problem remained unchecked, it would certainly harm every individual. Surely, this will be in contradiction with the government program for boosting the health of its citizens.

One of the government's programs is to eradicate the health problems and to impulse oral hygiene, especially minimizing caries. Indonesia Caries Free 2030 is so-called the program. This program has been running for several years, and if now we are in the year 2020 which means that there are only 10 years left to realize the program. With a very large population and a high prevalence rate, it would be very difficult to implement the program. One effort that we can carry out in supporting the program is to increase the awareness of each Individual to prevent caries. Through understanding and knowledge of how to maintain oral health and hygiene is one way to prevent it. The level of understanding of individuals will have an important role in maintaining oral health and hygiene[14]. The purpose of this study is to determine the level of knowledge of non-Dental Medicine students at Universitas Airlangga on health and dental and oral care.

## MATERIALS AND METHODS

This research was a descriptive study that described the characteristics of respondents' knowledge about health and dental and oral care. Samples were students from all faculties at Universitas Airlangga except the dental medicine faculty. The sample selection was done by

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random sampling with a minimum sample size of 97 samples following the sample calculation formula. This research was conducted at Universitas Airlangga in October 2019. This research had been approved by the Ethics Commission of the Faculty of Dental Medicine, Universitas Airlangga.

The questionnaire was distributed in October 2019 using Google form. The questionnaire contained 10 statements regarding dental and oral health and 10 statements regarding dental and oral care. The questionnaire used language that was understandable by a broad community, so it made it easy for the sample to fill out. The number of correct answers chosen by the respondent would indicate the level of knowledge of the respondent. All of the samples filled out the questionnaire personally from the

links that had been shared. Sample characteristics were displayed in a table. Analyzes were performed on each variable with the level of health knowledge and dental and oral care using cross-tabulations.

### RESULTS

In October 2019, a sample of 83 students was obtained from 97 minimum samples. From the data in Table 1 and Table 2, the number of female respondents was 57 people (68.7%) and men were 26 people (31.3%). In Table 1 it could be concluded that out of 57 female respondents 51 of them had a high level of knowledge about oral health, and 24 out of the 26 male respondents had a high level of knowledge about oral and dental health.

**Table 1.** Characteristics of respondents and cross-tabulation on sex and level of knowledge about oral health.

		Health Knowledge Category		Total
		Low	High	
Gender	Female	6	51	57
		10.5%	89.5%	100.0%
	Male	2	24	26
		7.7%	92.3%	100.0%

In Table 2 it can be concluded that 46 out of 57 female respondents had a high level of knowledge about dental

and oral care, and 22 out of the 26 male respondents had a high level of knowledge about dental and oral care.

**Table 2.** Characteristics of respondents and cross-tabulation of sex and level of knowledge regarding dental and oral care.

		Health Knowledge Category		Total
		Low	High	
Gender	Female	11	46	57
		19.3%	80.7%	100.0%
	Men	4	22	26
		15.4%	84.6%	100.0%

From the data in Table 3 and Table 4, the number of respondents from the health faculties was 13 (15.6%) and non-health faculties was 70 people (84.3%). In Table 3 it can be concluded that all respondents from the health

faculties had a high level of knowledge about dental and oral health, and 62 out of 70 respondents who came from non-health faculties had a high level of knowledge about dental and oral health.

**Table 3.** Characteristics of respondents and cross-tabulation of the type of faculty and level of knowledge regarding oral health.

		Health Knowledge Category		Total
		Low	High	
Faculty	Health	0	13	13
		0.0%	100.0%	100.0%
	Non-Health	8	62	70
		11.4%	88.6%	100.0%

In Table 4 it can be concluded that 11 out of 13 respondents who came from the health faculties had high levels of knowledge about dental and oral care, and 57

out of 70 respondents who came from non-health faculties 57 had high levels of knowledge about dental and oral health.

**Table 4.** Characteristics of respondents and cross-tabulation of the type of faculty and level of knowledge regarding dental and oral care.

		Health Knowledge Category		Total
		Low	High	
Faculty	Health	2	11	13
		15.4%	84.6%	100.0%
	Non-Health	13	57	70
		18.6%	81.4%	100.0%

## DISCUSSION

Based on the World Health Organization (WHO) 24% of cases of the dental and oral disease occurred at the age of 18 years which was the age of students (2). One of the common diseases was periodontal disease. The prevalence of periodontal disease reached more than 82% in the young population and exceeding 50% in adults. Research conducted in the UK showed that 54% of adults having a periodontal pocket of 4 mm or more and 5% including a heavy pocket periodontal (more than 6 mm)[15]. Moreover, Research conducted by Neamatollahi and Masoumeh at the University of Iran showed the number of dental floss users at health students was 46%, while in non-health students was only 32.7%[16].

In this study covering all samples of total 100 respondents and had been divided equally to be 50 health students and 50 non-health students, results of the study proofed that the proportion of respondents in dental medicine with good behavior in maintaining oral health was statistically greater in those aged <21 years was 1 respondent (100%) compared to those aged > 21 years, that there were only 46 respondents (93.9%). In the results of the study on English Literature students, the proportion of respondents with good behavior in maintaining oral health was greater in those aged <21 years were 7 respondents (30.4%), compared with those aged > 21 years, were 7 respondents (25, 9%).

Based on the results of the study above, it was proofed that dental medicine students (health) at the age of > 21 years had good behavior in managing oral and dental health compared with English literature students[17]. The results of the research found in dental medicine students were in line with research conducted by Sharma et al., explaining that the first year was normally having bad behavior in maintaining oral hygiene[18]. Better behavior was shown by final year students, this behavior was supported by the level of knowledge about maintaining oral hygiene obtained during lectures[18]. This explains that the good behavior of dental students in maintaining oral health was driven by good knowledge. This was because the behavior becoming one of the factors affecting oral health[19].

In a study conducted by Zulfiqar et al., from his research result, it could be seen that medical students had better knowledge about behavior, attitudes, and knowledge of oral health with a significant result statistically, compared to non-medical students. According to Sharda, knowledge ( $p \leq 0.001$ ), attitude ( $p \leq 0.001$ ) and behavior ( $p \leq 0.05$ ) proofed that medical students had better knowledge of hygiene than non-medical students[20]. Research published in 2005 by Prasad and Doshi (2007) stated that oral health-related knowledge, attitudes, and behaviors were significantly higher in medical students (for knowledge  $p \leq 0.001$ , for attitude  $p \leq 0.001$  and

behavior  $p \leq 0.001$ )[21]. In general, medical students had greater knowledge about risk awareness of health behaviors. For example, in Pakistan, medical student knowledge scores were better (94.7% of medical students get good grades > 17vs52%) compared to non-medical students[20]. Moreover, research conducted by Sugumari on dental medicine students, explaining that dental medicine students brushing their teeth twice a day were raised in number compared to the medical students. This difference might be due to their profession. The results obtained among medical students could be caused by higher knowledge and socio-economic conditions[22]. In this study, 85% of dentistry students scored significantly higher than 72% of medical students and 78% of pharmacy students. These results indicated that dental students had better oral hygiene[23].

## CONCLUSIONS

The level of knowledge about health and dental and oral care was found higher in males than females, as well as in respondents from the health faculties compared to the non-health faculties.

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