

Reinforced Socialisation on Correct Way of Wearing Dental Braces on Students From Smpn 34 and Smpn 36 Medan Using Pocket Books

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ABSTRACT

Dental braces installed in dental artisan and beauty salons are due to lack of awareness and knowledge of the community, especially school students about the indication of the use of dental braces and its consequences if used with improper purposes. One of the government's efforts to improve dental health rates for school students is the holding of the oral healthcare program (UKGS) in school. However, the oral healthcare program has not been evenly implemented and it is rare to conduct outreach about the use of dental braces. The purpose of this study was to increase knowledge about the correct use of braces in students of SMPN 34 and SMPN 36 Medan. This research was a descriptive study using 118 student samples from SMPN 34 and SMPN 36 Medan. The results of this study showed that was 92.6% of male students and 84.4% of female students knew that braces function was to straighten teeth, 79.6% male students and 78.1% female students knew the purpose of installing braces was for health, and 92.6% of male students and 84.4% of female students have known that braces installation must be performed by an orthodontist. The conclusion of this study was the level of knowledge about the use of braces in students of SMPN 34 and SMPN 36 Medan was quite high.

Keywords: Braces, Function of dental braces, Dental artisan

1. INTRODUCTION

Dental braces are tools that are used to straighten dan align the teeth. There are different types of brackets (visible or invisible) for the purpose of aesthetics or cosmetic. Who would have thought that original dental braces from the time of before Christ (BC) will continue to develop and advance? The original use of braces is to stabilize the mobility tooth. Braces, through the time of development and with the growth of knowledge, dental braces are later on being used to correct under bites, malocclusion, overbites, cross bites, open bites, deep bites, misaligned teeth and skeletal or dental anomalies [1].

In this development age, the use of dental braces in Indonesia is rapidly increasing. The use of dental braces is no longer only for oral and dental health, instead, it has become a trend for the new generation youngsters. Hence, youngsters nowadays are interested to wear dental braces either for dental health or for the sake of looks.

Dental braces are one of the technology in dentistry to help people with misaligned teeth or malocclusion.

Generally, malocclusion occurs due to heredity factor which includes crowded teeth or diastemata, hypodontia or hyperdontia and dental-facial anomalies. Besides that, malocclusion can be caused by bad oral habits such as thumb sucking, tongue thrusting, post-facial accidents, premature loss of teeth, etc. In order to treat malocclusions, causative factors and special treatment using orthodontic appliances such dental braces are needed [2].

Dental braces work by transferring the force and pressure given onto the surface of the teeth. There are 4 basics needed to be understand in order to move the teeth well. Conventional fixed orthodontics use brackets, bonding, arch wire, elastics and ligature wire to align the teeth. Teeth will move when the activated arch wires give pressure onto the teeth. Arch wires will supply constant pressure during the active phase to align the teeth into the right position [3].

Majority of the dental braces are used to treat children and adults' teeth. They consisted of little brackets that are attached to each front tooth surface and it is adjusted with tape that surrounds the teeth. The advantage of dental

braces is the wearer is allowed to eat and drink while wearing the braces while the disadvantage of dental braces is that it has to be tightened by the dentist regularly.

Every dental braces installation begins with each patient have to consult visually with a dentist. Every procedure starts with an extra oral and intraoral checkup to determine the duration of treatment needed based on severity, location, age which usually ranged from 6 months to 6 years, although there are researches show that average treatment duration ranged from 1 to 4 years.

Dental artisan (*Tukang Gigi*) is very common in Indonesia. They never learn and fully understand about biology and anatomy of human teeth and skulls. The head of Indonesian Dental Association (PDGI), Zaura Rini Matram, stated that dental braces that are not installed or fitted according to the proper dental procedure will only create more anomalies instead of just moving the teeth. Dental braces installation has to be based on understanding and application on dental knowledge and technology [4].

Indonesian Dental Association strongly prohibits the dental braces installations done by the dental artisan. Their reason for this prohibition is that dental braces installation without proper professional judgment will cause infection risks on both hard and soft tissues such as those installations that are done by the dental artisan. First, the use of dental braces will give pressure to the alveolar bone by the tooth that is being given pressure, the continuous pressure on the alveolar bone will make the tooth moves towards the direction of the pressure that is given. This concept is seldom realized by dental braces users. Secondly, the growth of bacteria in the mouth will increase the risk of infection. The gap in between braces and teeth or in between the braces will become the perfect place for bacteria growth. In order to prevent the health problems caused by the bacteria, maximum oral condition consideration is needed while planning the treatment because of how dangerous and infectious the disease is to the braces wearers. Incorrect dental braces installation will risk the patient towards health problem [5].

Although it is clearly stated in ministry of health regulations that dental artisan are only given competency to make dentures, majorities members of the public still don't know about their competency and what are the risk to them who are being offered orthodontic treatment by the dental artisan rather than an orthodontic specialist. Members of the public are usually attracted to far lower tariff that is being offered by the dental artisan. Their service costs a fraction of what is being offered by the orthodontist. The phenomenon of wearing dental braces is a human effort to fulfil their wish to be better or to show their self-existence. Dental braces to them are not only for straightening the teeth, but also for the sake of fashion due to the trend that is seen on social media [6-8].

Self-image of teenagers using dental braces in city of Makassar showed that there are three types of purpose that teenagers know about dental braces. These purposes are health, accessories and social economy. Their knowledge about dental braces is mainly about self-image and appearance which is the first impression that people gives to them. Their confidence comes from their daily appearance which then becomes their self-image and impression on people around them. There are also 2 main different purposes based on genders. Girls tend to project their self-image a lot more than boys which usually makes that started wearing braces because of peer pressure given by their close friends, whereas, boys usually wear dental braces because of their health conditions with the support from the family members [9,10].

2. METHODS

This was a description survey by using 118 students from SMPN 34 and SMPN 36 in Medan. The implementation of this community service will be carried out in a few steps. Guidebooks, assessment forms, educational outreach posters and sharing materials are prepared beforehand. The implementation will start in the third quarter of the year in the month of July because July is the start of the new academic year.

Before informational outreach started, every student was inspected for malocclusion or any teeth structural anomalies. Informational outreach was done by a person from the outreach team in each class. The sharing materials consist of healthy teeth, the process of dental decay, diets that were good and bad for their oral health, right way and timing of tooth brushing. These materials were shared through the use of audiovisual either short dental health video playback or slideshows on PowerPoint with the help of teeth phantom.

Next, "Brushing Teeth Together" was carried out by the students with the supervision of the outreach team members. Toothbrush and toothpaste were distributed to every student. This activity takes about 15 minutes. Last but not least, another outreach was carried out specifically for teachers and the parents on the subject of dental braces usages and ways to maintain good oral health.

3. RESULTS

This community service was done on 118 samples. 50 samples from SMPN 34 and 68 samples from SMPN 36. Table 1 shows the data distribution of students from SMPN 34 and 36 based on gender.

Table 1. Student’s distribution based on gender.

Gender	Total	Percentage (%)
Male	54	45.8
Female	64	54.2
Total	118	100

Table 2 showed that there are 29 male students (53.7%) and 30 female students (46.9%) that have crowded teeth, while 25 male students (46.3%) and 34 female students (53.1%) do not have crowded teeth.

Table 2. Students with crowded teeth prevalence based on gender.

Gender	Crowded Teeth			
	Yes		No	
	Total	Percentage (%)	Total	Percentage (%)
Male	29	53.7	25	46.3
Female	30	46.9	34	53.1

Table 3 showed that 50 male students (92.6%) and 54 female students (84.4%) knew the function of the dental braces is to align teeth, while 4 male students (7.4%) and 10 female students (15.6%) thought that dental braces are only for fashion.

Table 3. Knowledge distribution on function of wearing dental braces based on gender.

Gender	Function of Dental Braces			
	Teeth Alignment		Fashion	
	Total	Percentage (%)	Total	Percentage (%)
Male	50	92.6	4	7.4
Female	54	84.4	10	15.6

Table 4 showed that 49 male students (90.7%) and 52 female students (81.3%) knew that dental braces have to be installed by the orthodontist, while 5 male students (9.3%) and 12 female students (18.8%) thought that dental braces installation can be done by anyone.

Table 4. Knowledge distribution on dental braces installation based on gender.

Gender	Dental braces installation			
	Orthodontist		Anyone	
	Total	Percentage (%)	Total	Percentage (%)
Male	49	90.7	5	9.3
Female	52	81.3	12	18.8

Table 5. Knowledge distribution on purpose of wearing dental braces based on gender.

Gender	Purpose of wearing dental braces			
	Health		Fashion	
	Total	Percentage (%)	Total	Percentage (%)
Male	43	79.6	11	20.4
Female	50	78.1	14	21.9

Table 5 showed that 43 male students (79.6%) and 50 female students (78.1%) knew the purpose of wearing dental braces is for health, while 11 male students (20.4%) and 14 female students (21.9%) thought that purpose of wearing dental braces is for fashion.

4. DISCUSSION

Public awareness and knowledge towards oral health and dental braces function are factors that members of the public especially the number of teenagers wearing dental braces installed by dental artisan is high. Besides that, government is having a tough time to supply oral healthcare program (UKGS) in each and every school to do an outreach and fulfil the need of dental treatment. This will negatively affect the students’ concern towards taking good care of their oral health, let alone those wearing dental braces just for the sake of fashion [3].

Chaney defined lifestyle is a way of life that is especially important towards the group of people with expressive attitude. They will usually try to define themselves by their actions such to differentiate themselves from others. Lifestyle has also become a standard limit in terms of interaction patterns. People with lower lifestyle will feel inferior to high class people, hence, it forms a communication barrier between them [11].

SMPN 34 is a middle school in Medan City that has students from middle to lower class social status families. They seldom get their dental check-up done regularly and wouldn’t care less about their oral health conditions. There is no oral healthcare program (UKGS) in this

school. Hence, a frequent community outreach to this school is needed.

SMPN 36 is a middle school in Medan Amplas district with their students coming from middle to lower class social status families. Social status condition has always been a predisposing factor that affects the attitude of the community in taking care of their personal health including oral health. Hence, a lot of them got their trendy looks with cheap prices by neglecting their own health.

Table 3 shows that 92.6% male students and 84.4% female students knew that function of the dental braces is to align teeth. Table 5 shows that there are 79.6% male students and 78.1% female students knew that purpose of getting dental braces is to enhance health. These results show that students from SMPN 34 and SMPN 36 have high level of knowledge and understand the function and purpose of dental braces is to enhance health, although there are still a number of students thought that dental braces are just for fashion. This group of people are the reason why the need of socialisation of the use of the dental braces has to be increase in order to not misunderstand the purpose of wearing dental braces. This is because there are many cases happened to teenagers wearing braces without knowing the purpose in Thailand shows that the usage of dental braces with oral hygiene consideration is very harmful towards their health. Although dental braces at a glance may look clean and safe to be use, loose or incorrect installation of the dental braces may injure the gingiva or necrotize the dental pulp which will then become source of infection for other parts of the body such as eyes, heart, kidneys, etc [8,9,12].

Table 4 shows that 92.6% male students and 84.4% female students already knew that dental braces installation has to be done by the orthodontist. The result shows that students from SMPN 34 and 36 have high level of knowledge. They already knew the professionals to look for whenever they want to get their dental braces fixed (Orthodontist).

5. CONCLUSION

Students of SMPN 34 and 36 generally have understood the function of wearing dental brace is to align teeth, dental braces can only be done by the orthodontist and understood the purpose of wearing dental braces is to enhance the oral health.

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