

Comparison of parents knowledge of bad habits and the severity malocclusion of children in schools with different social levels



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Abstract

Objective: To know comparison of the level of knowledge of parents of bad habits and the severity of malocclusion children at school with a different social level, namely Elementary School of Kera-Kera Settlement (SD Inpres Kera-Kera) and Al-Biruni Integrated Islamic Elementary School of Makassar City (SDIT Al-Biruni Makassar).

Material and Methods: The sampling method used is purposive sampling. Measurement of the level of parental knowledge using a questionnaire, the severity of children's malocclusion using the Occlusion Feature Index (OFI) method.

Results: In the SD Inpres Kera-Kera, the level of knowledge of parents with Low criteria of 63.6%, the severity of malocclusion of children with

a very mild OFI score of 2.3%, mild criteria of 34.1%, medium criteria 59, 1%, and the weight criteria are 4.5%. SDIT Al-Biruni assessment of the level of knowledge of good parents as much as 81.4%, the severity of malocclusion with an OFI score of very mild criteria as much as 5.1%, mild criteria as much as 49.2%, medium criteria 42.4%, and severe criteria as much as 3.4%.

Conclusion: There is a difference in the knowledge of parents of SD Inpres Kera-Kera and SDIT Al-Biruni parents. Parent's knowledge of bad habits and malocclusion at SDIT Al-Biruni Makassar is far better than that of SD Inpres Kera-Kera

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Keywords: Bad habits, Malocclusion, OFI method, Parental knowledge

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Introduction

Malocclusion is a condition where there are differences in normal form or the occurrence of deviations from the normal relationship of teeth in the arch of the same or opposite teeth.¹⁻³ Malocclusion is a health problem that has received full attention, according to WHO malocclusion has become the third most common oral disease, after dental caries and periodontal disease.⁴ The prevalence of malocclusion in Indonesia has reached 80% of the population is the population of the Indonesian people and ranks third after caries and periodontal disease, because of prevalence is high malocclusion is considered a public health problem that can interfere with the quality of life of patients, impede social interaction them, and influences patient psychology.⁴ One of the causes of malocclusion is bad habits, bad habits that are carried out repeatedly and continuously during the development of the jaw will result in malocclusion.² Bad habits such as finger sucking / nipples, nail biting, lip biting, mouth breathing, and tongue sticking habits have an impact on the prevalence of malocclusion, especially in children. Examples of bad habits such as finger sucking have a high chance of disrupting tooth position, disrupting bone growth patterns that can change craniofacial growth which is known to cause malocclusion, this habit can have the effect

of malocclusion of open anterior bite. There was a significant relationship between the development and prevalence of malocclusion with the prevalence of bad habits.^{1,5} The results of a study in children aged 7-15 years who have oral bad habits showed about 80% of children suffer from malocclusion, both class I, class II and class III malocclusions. According to Singh, children who have oral bad habits, especially finger sucking, tend to have class II malocclusions. This proves a correlation that oral bad habits cause good malocclusions that do not have to be treated and that must be treated if they are not controlled.⁶

The severity of malocclusion can be seen in the period of mixed teeth, namely the age of 8-10 years because this period is the most important period in the development of teeth in children. According to Jabur and Miyasif research, ages 8-9 years are the age group that shows the highest oral bad habits with around 35, 45% of children have oral bad habits. This is also supported by the results of research from Yohana and Riyanti, which are 8-year-old children are the group that most often have oral bad habits with a percentage of 22.87%.⁶

Impacts that arise as a result of malocclusion can have an impact on the physiology, psychology and social of children. Malocclusion can disrupt the

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mastication system, pronunciation, facial posture, cause temporomandibular disorder, disturb the aesthetic, and social of children because of shame to smile, so that the consequences of malocclusion can indirectly reduce the quality of life of children.^{3,4}

Parental knowledge about adverse oral bad habits is a factor that must be considered because parents' ignorance can be the cause of the occurrence of dentofacial anomalies in children. Parents as one of the main educators in a child's life can unconsciously influence the survival or failure of a bad habit and also in the child's oral health. The influence of parents' knowledge and attitudes towards oral bad habits determines whether or not these habits are carried out continuously. Parents can provide motivation and education to their children to stop these bad habits.^{5,6}

To measure the severity of children's malocclusion in epidemiological studies, a number of malocclusion indices have been proposed and implemented, namely Occlusion Feature Index (OFI), Malalignment Index (Mal I), Handicapping Labio-lingual Deviation Index (HLD Index), Handicapping Malocclusion Assessment Index (HMA Index), Treatment Priority Index (TPI), Occlusal Index (OI). Most of these indices note specific conditions. One of the malocclusion indices, the Occlusal Feature Index (OFI), measures malocclusion based on crammed teeth, interdiggitation of cusps of teeth, overlapping bites and bite distance. This method is simple and objective and does not require complicated diagnostic equipment such as the gnathostatic model and cephalometric devices. Evaluated this method and the results of their research prove that the assessment of the severity of malocclusion by orthodontists is subjective and the assessment by public health specialists using OFI results is very close.⁷

Researchers classify schools with different social levels by assessing the external and internal of the school, which is based on the curriculum, school programs, location of school, school funding, and school facilities. Based on the description above, by assessing the knowledge of parents and malocclusions in their children the researcher wants to make a study of the comparison of parents' knowledge of bad habits with the prevalence of malocclusion of children in schools with different social levels, in Elementary School of Kera-Kera Settlement (SD Inpres Kera-Kera) and Al-Biruni Integrated Islamic Elementary School of Makassar City (SDIT Al-Biruni Makassar).

Material and Methods

This type of research is observational descriptive. Population of research were children age

developmental age of 9-12 years and their parents. The sampling method used was Purposive Sampling.

This research was conducted in Makassar City, at Elementary School of Kera-Kera Settlement (SD Inpres Kera-Kera) and Al-Biruni Integrated Islamic Elementary School of Makassar City (SDIT Al-Biruni Makassar) in the range of April- August 2019. Data were obtained through clinical examination of the oral cavity to assess the severity of a child's malocclusion using the Occlusion Feature Index (OFI) method and administering a questionnaire to parents. Statistical tests use the Gamma Correlation Test of two ordinal data to see the correlation of parents' level of knowledge with bad habits with the severity of a child's malocclusion, and the Mann Whitney Test to see a comparison between the two schools.

Tools and materials used in the form of Cheek Retractor, Oral Diagnostic Set, camera, malocclusion assessment sheet, questionnaire, pen, mask, handscoen, povidone iodine, alcohol.

This study was approved by the Ethics Committee, Faculty of Dentistry, University of Hasanuddin based attachment Number: 0229 / PL.09 / KEPK FKG-the Hospital UNHAS / 2019, and approved by the Education Department Government of Makassar based research Permit No. 070/0616/DP/VII/2019.

Results

The study was conducted at SD Inpres Kera-Kera and SDIT Al-Biruni Makassar with a total sample of 103 people (44 people from SD Inpres Kera-Kera, 59 from Al-Biruni Makassar SDIT) who met the research inclusion criteria and were taken as research subjects [table 1](#).

[Figure 1](#) is attached that 53.3% of parents do not know about malocclusion in children (Q1), 43% of parents agree that deciduous problems can affect permanent teeth (Q2), 38.6% of parents know that maintaining healthy deciduous teeth healthy and regular can prevent malocclusion in children (Q3), 56.9% of parents do not know that bad habits can affect teeth in children (Q4), 61.3% of parents know finger sucking is a bad habit that can affect teeth (Q5A), 29.5% of parents know lip sucking / biting is a bad habit that can affect teeth (Q5B), 27.2% of parents know breathing through the mouth is a bad habit that can affect teeth (Q5C), 34.1 % of parents know nail biting is a bad habit that can affect teeth (Q5D), 36.3% parents know sticking out tongue is a bad habit that can affect teeth (Q5E), 41% of parents know bruxism is a bad habit that can affect teeth (Q5F).

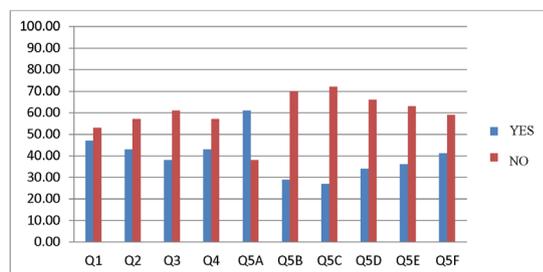
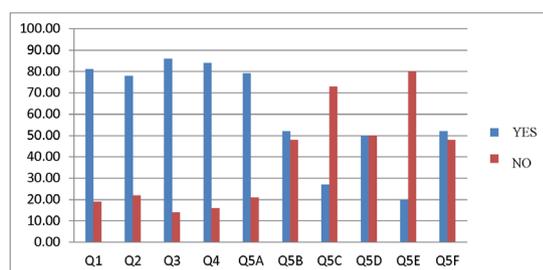
[Figure 2](#) is attached that 19.7% of parents do not know about malocclusion in children (Q1), 78% of

Table 1 The frequency of the level of children's malocclusion and the level of Parental Knowledge in SD Inpres Kera-Kera

Variable		Frequency	%
Severity of Child Malocclusion	Verymild	1	2.3
	Mild	15	34.1
	Medium	26	59.1
	Weight	2	4.5
Total		44	100.0
Parental Knowledge Level	Low	28	63.6
	Good	16	36.4
Total		44	100.0

Table 2 Frequency OFI score of children and Parents' Knowledge Level at SDIT Al-Biruni Makassar

Variable		Frequency	%
OFI score	Very mild	3	5.1
	Mild	29	49.2
	Medium	25	42.4
	Weight	2	3.4
Total		59	100.0
Parental Knowledge Level	Low	11	18.6
	Good	48	81.4
Total		59	100.0

**Figure 1** Percentage of parents' level of knowledge based on questionnaires at SD Inpres Kera-Kera**Figure 2** Percentage level of parental knowledge based on questionnaires at SDIT Al-Biruni Makassar

parents agree that deciduous problems can affect permanent teeth (Q2), 86.4% of parents know that maintaining healthy deciduous teeth healthy and regular can prevent malocclusion in children (Q3), 84.7% of parents know that bad habits can affect teeth in children (Q4), 79.6% of parents know finger sucking is a bad habit that can affect teeth (Q5A), 52.5% of parents know sucking / biting on the lips is a bad habit that can affect teeth (Q5B), 27.1% of parents know breathing through the mouth is a bad habit that can affect teeth (Q5C), 50.8% parents know nail biting is a bad habit that can affect teeth (Q5D), 20.3% parents know sticking out tongue is a bad habit that can affect teeth (Q5E), 52.5% parents know bruxism is a bad habit that can affect gear (Q5F) table 2.

Discussion

One of the causes of malocclusion is bad habits, bad habits that are done repeatedly and continuously during the development of the jaw will result in malocclusion.² Bad habits such as finger sucking / nail biting, nail biting, lip biting, mouth breathing, and tongue sticking habits have an impact on the prevalence of malocclusion, especially in children. The results study in children aged 7-15 years who have oral bad habits show that about 80% of children suffer from malocclusion, be it class I, class II, and class III malocclusions. Children who have oral bad habits, especially finger sucking, tend to have class II malocclusions. This proves a correlation that oral bad habits cause good malocclusions that do not have to be treated and that must be treated if they are not controlled.⁸

Parents as one of the main educators in a child's life can unconsciously influence the survival or failure of a bad habit and also in the child's oral health. The influence of parents' knowledge and attitudes towards oral bad habits determines whether or not these habits are carried out continuously.⁹

There is no significant relationship ($p = 0.488$, $p > 0.05$), the level of parental knowledge with the severity of a child's malocclusion is inversely related to the strength of a weak relationship in SD Inpres Kera-Kera. Elementary school children in Denpasar with the result that there was no correlation between the level of parental knowledge and the severity of malocclusion caused by bad habits, showed no relationship between parent's knowledge level with child malocclusion.

There is a significant relationship ($p: 0.003$, $p < 0.05$), the level of parental knowledge with the severity of child malocclusion is inversely related

to the strength of the strong relationship at SDIT Al-Biruni Makassar.

The results of this study can be concluded with several possibilities. First is because the malocclusion is also supported by other factors outside of bad oral habits, secondly, malocclusion is not a priority for parents in dealing with children's dental and mouth problems.

In the Mann Whitney test results obtained a sig value of 0,000. This shows that there is a difference in knowledge between parents of SD Inpres Kera-Kera and SDIT Al-biruni parents. Knowledge of parents SDIT Al-Biruni about the habits bad far more better than the knowledge of parents SD Inpres Kera-Kera, it is based of average value obtained. On average knowledge of parents SDIT Al-Biruni is much more higher than the average knowledge of parents SD Inpres Kera-Kera.¹⁰

The results of this study can be concluded with the possibility of parental knowledge influenced by several factors such as work and social environment.

Conclusion

Based on research results comparing the level of parental knowledge of bad habits and the severity of malocclusion of children in schools with different social levels, it can be concluded: parents SDIT Al-Biruni Makassar who has knowledge of Good about bad habits and malocclusion that is equal to 81,4 %. While parents in SD Inpres Kera-Kera who have good knowledge about bad habits and malocclusion are 36.4%; there is a significant difference regarding the level of parental knowledge of bad habits in schools with a social level of dressing; there is no significant relationship between the level of parental knowledge of bad habits with the severity of children's malocclusion in SD Inpres Kera-Kera. While at SDIT Al-Biruni Makassar there is a significant relationship between the level of parents' knowledge of bad habits and the severity of children's malocclusion.

Acknowledgment

None.

Conflict of Interest

The authors report no conflict of interest.

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