

Oral Health Related Quality of Life and Oral Hygiene Practice Patterns in 11-14 Year Old Children (Study at SMP PGRI 1 Cibinong, Bogor, West Java)

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ABSTRACT

Background: According to RISKESDAS West Java in 2018, the prevalence of oral hygiene practices was only 5.9% in children aged 10-14 years, so the low rate will have an impact on oral health problems. Children's quality of life refers to children's well-being and satisfaction with their oral health conditions, as well as their psychosocial consequences. Some studies suggest that oral health problems in children have an impact on the dimensions of children's functioning, such as drinking difficulties, eating difficulties, speaking difficulties, and missing school. The purpose of this study was to explain the quality of life of children related to their oral health and oral hygiene practice patterns of children aged 11-14 years at SMP PGRI 1 Cibinong.

Materials and Methods: The type of research used is a descriptive quantitative survey, with Proportional Stratified Random Sampling technique. The questionnaire consisted of 8 questions about oral hygiene practice patterns, and CPQ11-14 in the form of 38 questions about children's quality of life related to oral health.

Results and Discussion: The results showed that OHRQoL (Oral Health Related Quality of Life) of children aged 11-14 years, the majority described their oral health condition as "quite good" with a prevalence of 104 students (33.33%). A frequent problem was food stuck between the teeth. Emotional well-being was generally stable, although some students occasionally felt frustrated regarding their oral health condition. The social impact of the majority of students did not feel difficulties in interacting with friends or family due to oral health problems. The results also showed that almost most of the respondents, 125 students (40.06%), had never visited a dentist. The majority of students reported brushing more than once a day (73.72%), but most students never used dental floss (77.56%).

Conclusion: The respondents' OHRQoL was quite good, especially for never feeling frustrated with the condition of their teeth and their oral hygiene practice patterns were still lacking in the items of visiting the dentist and using dental floss.

KEYWORDS: Oral Health, Oral Hygiene Practices, OHRQoL.

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INTRODUCTION

Oral health is an important aspect of overall body health, to maintain oral health, one must prioritize their hygiene practices.¹ Oral hygiene practices are care measures that can prevent plaque as a cause of disease in the teeth and mouth, which includes activities such as visiting the dentist once every 6 months, flossing, and avoiding consumption of high-risk foods and drinks for dental health.^{2,3} Poor oral health in children can lead to discomfort, the formation of tooth and

mouth deformities, and a variety of severe health problems, including dental abscesses, bone damage, and the spread of infection through the bloodstream.⁴ Some of the changes that occur at middle school age affect oral hygiene practices such as biopsychosocial modifications (problems in health include physical, psychological, and sociocultural), increased dental caries activity and periodontal disease due to increased intake of cariogenic substances, and at that age brushing is not a priority.⁵

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WHO (World Health Organization) data in 2022 approximately 3.5 billion people worldwide are affected by oral health problems, with a particular emphasis on the middle class population.⁶ Ramadhani's research in 2018, oral health maintenance is one of the ten most prevalent diseases and is widespread in various locations, therefore it is very important to start practicing dental hygiene from a young age.⁷ National data in Indonesia based on RISKESDAS (Basic Health Research) in 2018 reported that the prevalence of oral health problems in Indonesia was 45.3%, including those aged 10-14 years at 41.4%.⁸ Maintaining oral hygiene habits is essential to ensure overall disease-free oral health.⁹ The 2018 RISKESDAS data shows that 6.7% of the Indonesian population received oral hygiene measures.⁸ West Java RISKESDAS data in 2018 that oral hygiene in the West Java area is 8.7%, in children aged 10-14 years 5.9%, this shows that the condition of dental and oral hygiene in Indonesian society tends to be poor.⁸

Oral health related to quality of life (OHRQoL) is based on the idea that injuries affecting the oral cavity cause damage that has physical, functional, psychological, and social limitations and dissatisfaction with self-appearance.⁹ Pediatric quality of life is a term that refers to a child's well-being and satisfaction with the current state of oral health and its psychosocial consequences.⁹ Research among students by Asshokkumar T *et al* in 2022 many of them started living away from home which could have an adverse effect on health, lifestyle, oral health behavior, physiological and social changes deteriorate rapidly.¹⁰ Research by Nurwati *et al* in 2019 found that oral health problems in children have an impact on the dimensions of child function, such as difficulty drinking, difficulty eating, difficulty speaking, and not attending school.¹¹ Research by Risda R *et al* in 2023 showed that the quality of life related to physical health, psychological, social relationships, and the environment that is female is higher than male, women are 59.99%, men are 54.85%.¹²

Bogor Regency, located in West Java, has a high prevalence of oral health problems with moderate socioeconomic status. According to the 2018 West Java RISKESDAS survey, the prevalence of oral health problems in individuals aged 10-14 years was found to be 49.60%.¹³ The purpose of this study was to determine how the Oral Health Related Quality of Life and oral hygiene practice patterns in children aged 11-14 years at SMP PGRI 1 Cibinong, Bogor, West Java.⁷

MATERIALS AND METHODS

The type of research used is a quantitative survey which is a descriptive study to see an overview of the variables studied.¹⁴ The design used in this study used a cross sectional study, each subject was only observed once and the measurement of the subject variables was carried out at the time of the examination.¹⁴ The research was conducted on June 21-22, 2024 at SMP PGRI 1 CIBINONG. The

instrument that will be used in this study is a questionnaire which is used as a measuring tool for researchers if it has been tested for validity and reliability.

The population in this study is already known, namely 930 students at SMP PGRI 1 CIBINONG who meet the inclusion criteria, namely students of SMP PGRI 1 CIBINONG with ages 11-14 years and agreeing to informed consent. The exclusion criteria in this study were students of SMP PGRI 1 CIBINONG who were 11-14 years old, had agreed to informed consent but were not present at the time of data collection or who did not complete the questionnaire to the end.

This study uses the Proportional Stratified Random Sampling method, which is a method that divides the population into several subgroups, or strata, based on some of the same characteristics, in this case divided into age strata 11, 12, 13, 14 years.¹⁴ From a population of 930 students, using the Slovin formula, the minimum number of samples with a 5% margin of error was obtained, namely 280 students. To prevent drop out, the researcher exceeded 20% (336 students), but the data obtained and could be analyzed were 312 students, according to the proportion of 11-year-old students totaling 14 students, 12-year-old students totaling 103 students, 13-year-old students totaling 128 students and 14-year-old students totaling 67 students.

Data collection using a questionnaire with the variable under study, namely OHRQoL based on CPQ11-14 which contains 38 questions based on 4 domains, namely oral symptoms, functional limitations, emotional and social well-being. The answer choices for the oral symptoms domain are in the form of a 0-4 Likert scale (very good, good, quite good, less good, bad) for oral and dental conditions. The answer options for the oral symptoms domain are a 0-4 Likert scale (not at all, very little, sometimes, a lot, very much) for oral conditions affecting life. The answer choices for the domain of functional limitations, emotional and social well-being are in the form of a 0-4 Likert scale (almost every day, often, sometimes, once or twice and never), so that it has a score range of 0-152. The oral hygiene practice pattern consists of 8 questions, namely dentist visits, experiencing toothache, frequency of brushing, use of dental floss, use of mouthwash, consumption of chewing gum, frequency of sugar intake, and consumption of sugary drinks. The answer options are in the form of a 0-4 Likert scale (poor, acceptable, good, very good, and perfect), so it has a score range of 0-32. The questionnaire has been tested for validity and reliability, the validity of oral hygiene practice patterns with the results of r count 0.505-0.713 is greater than r table which is 0.349, for the validity of children's quality of life r count 0.406-0.794 is greater than r table 0.349. This shows the data is valid. The reliability of the oral hygiene practice pattern, namely, Cronbach's alpha 0.734 is greater than the standard, namely, 0.600 indicating that it is reliable. The reliability of children's quality of life Cronbach's

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alpha 0.947 is greater than the standard, namely, 0.600 indicating that it is very reliable.

The data analysis used in this study was univariate analysis to describe the characteristics of all variables (OHRQoL and oral hygiene practices).¹⁰ The research data are presented in the form of percentages or frequency distribution tables.¹⁰

RESULT

The results of the univariate test in this study were in the form of frequency distribution of respondents based on gender, frequency distribution of respondents based on age, frequency distribution of oral hygiene practice patterns, frequency distribution of oral hygiene practice patterns scores, frequency distribution of oral health related quality of life, and frequency distribution of oral health related quality of life scores.

Table 1. Frequency Distribution of Respondents Based on Gender

Gender	Frequency (n)	Percentage (%)
Male	153	49.00
Female	159	51.00
Total	312	100.00

The frequency distribution of respondents based on gender is shown in Table 1. shows that there were 312 respondents, 153 (49%) male students, 159 (51%) female students. The proportion of this study on male and female gender is almost equal.

Table 2. Frequency Distribution of Respondents Based on Age

Age	Frequency (n)	Percentage (%)
11	29	9.30
12	65	20.80
13	96	30.80
14	122	39.10
Total	312	100.00

The frequency distribution of respondents based on age is shown in Table 2. shows the frequency distribution of the age of the respondents studied, totaling 312 students with details of 29 students (9.30%) with 11 years of age, 65 students (20.80%) with 12 years of age, 96 students (30.80%) with 13 years of age, and 122 students (39.10%) with 14 years of age.

Table 3. Frequency Distribution of Oral Hygiene Practice Patterns

Oral Hygiene Practices	Frequency (n)	Percentage %
Dentist visit		
6 months ago	35	11,22
< 1 year ago	32	10,26
1-2 years ago	45	14,42
> 2 years ago	75	24,04
Not at all	125	40,06
Total	312	100,00
Experiencing toothache		
Never	140	44,87
2 years ago	38	12,18
1 year ago	52	16,67
< 1 year ago	63	20,19
Frequently or almost every day	19	6,09
Total	312	100,00
Frequency of tooth brushing		
>1 time per day	230	73,72
1 time per day	46	14,74
Sometimes	24	7,69
Rare	8	2,56
Never	4	1,28
Total	312	100,00
Use of dental floss		
>1 time per day	5	1,60
1 time per day	6	1,92
Sometimes	27	8,65
Rare	32	10,26
Never	242	77,56
Total	312	100,00
Use of mouthwash		
>1 time per day	14	3,02
1 time per day	34	7,34
Sometimes	55	11,88
Rare	86	18,57
Never	123	26,57
Total	312	67,39
Gum consumption		
>1 time per day	48	15,38
1 time per day	23	7,37
Sometimes	139	44,55
Rare	95	30,45
Never	7	2,24
Total	312	100,00
Frequency of sugar intake		
>1 time per day	111	35,58
1 time per day	50	16,03
Sometimes	97	31,09

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Rare	52	16,67
Never	2	0,64
Total	312	100,00

Consumption of sugary drinks

>1 time per day	22	7,05
1 time per day	11	3,53
Sometimes	114	36,54
Rare	140	44,87
Never	25	8,01
Total	312	100,00

The frequency distribution of oral hygiene practice patterns is shown in Table 3. shows the frequency distribution of oral hygiene practice patterns consisting of 8 questions including: (1) dentist visits, (2) experiencing toothache, (3) frequency of brushing, (4) use of dental floss, (5) use of mouthwash, (6) consumption of chewing gum, (7) frequency of sugar intake, and (8) consumption of sugary drinks. For dentist visits, the highest frequency was not at all at 125 students (40.06%). For toothache, the highest frequency was never at 140 students (44.87%). The frequency of brushing teeth is more than once a day by 230 students (73.72%). For the use of dental floss, the highest frequency is never by 242 students (77.56%). For the use of mouthwash, the highest frequency is never by 123 students (26.57%). For chewing gum consumption, the highest frequency was sometimes at 139 students (44.55%). For sugar intake, the highest frequency was more than once a day for 111 students (35.58%). For the consumption of sugary drinks, the highest frequency was rarely at 140 students (44.87%).

Table 4. Frequency Distribution of Oral Hygiene Practice Pattern Scores

Oral Hygiene Practice Score	Frequency (n)	Percentage %
0-8	9	2,88
9-16	190	60,89
17-24	110	35,25
25-32	3	0,96

The frequency distribution of oral hygiene practice pattern scores is shown in Table 4. The highest prevalence of oral hygiene practice pattern scores was 9-16 as many as 190 students (60.89%). The average total score of oral hygiene practices is 15.34 ± 3.51 .

Table 5. Frequency Distribution of Oral Health Related Quality of Life Domain Oral Symptoms

Oral Health Related Quality of Life	Frequency (n)	Percentage %
DOMAIN OF ORAL SYMPTOMS		
What is the condition of oral health		
Very good	23	7,37
Good	85	27,24
Good enough	150	48,08
Not good	53	16,99
Bad	1	0,32
Total	312	100,00
How much the condition of the mouth affects life		
Not at all	69	22,12
Very little	73	23,40
Sometimes	111	35,58
Many	32	10,26
Very much	27	8,65
Total	312	100,00

Table 5 shows the frequency distribution of oral health related quality of life in the oral symptoms domain which includes: (1) how oral health conditions, (2) how much oral conditions affect life. For how the condition of oral health, the highest frequency is quite good at 150 students (48.08%). For how much oral conditions affect life, the highest frequency was sometimes at 111 students (35.58%).

Table 6. Frequency Distribution of Oral Health Related Quality of Life Domain Functional Limitation

Oral Health Related Quality of Life	Frequency (n)	Percentage %
DOMAIN OF FUNCTIONAL LIMITATIONS		
Have you ever experienced tooth and mouth pain		
Never	100	32,05
Once or twice	91	29,17
Sometimes	102	32,69
Often	19	6,09
Every day	0	0,00
Total	312	100,00
Have you ever experienced bleeding gums		
Never	111	35,58

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					0
Have you ever had trouble sleeping				Has there ever been a mouth injury	
Never	87	27,88	Never	108	34,62
Once or twice	54	17,31	Once or twice	92	29,49
Sometimes	107	34,29	Sometimes	96	30,77
Often	41	13,14	Often	16	5,13
Every day	23	7,37	Every day	0	0,00
Total	312	100,00	Total	312	100,00
					0
Do you ever find it difficult to chew your food			Have you ever experienced bad breath		
Never	54	17,31	Never	33	10,58
Once or twice	38	12,18	Once or twice	56	17,95
Sometimes	99	31,73	Sometimes	176	56,41
Often	92	29,49	Often	36	11,54
Every day	29	9,29	Every day	11	3,53
Total	312	100,00	Total	312	100,00
					0
Do you ever find it difficult to open your mouth			Have you ever felt food slipping between your teeth		
Never	127	40,71	Never	8	2,56
Once or twice	65	20,83	Once or twice	35	11,22
Sometimes	96	30,77	Sometimes	114	36,54
Often	22	7,05	Often	135	43,27
Every day	2	0,64	Every day	20	6,41
Total	312	100,00	Total	312	100,00
					0
Do you ever find it difficult to pronounce words			Have you ever breathed with your mouth		
Never	241	77,24	Never	135	43,27
Once or twice	44	14,10	Once or twice	52	16,67
Sometimes	26	8,33	Sometimes	98	31,41
Often	1	0,32	Often	23	7,37
Every day	0	0,00	Every day	4	1,28
Total	312	100,00	Total	312	100,00
					0
Do you ever find it difficult to eat what you want			Have you ever taken longer to eat than other people		
Never	195	62,50	Never	46	14,74
Once or twice	50	16,03	Once or twice	63	20,19
Sometimes	57	18,27	Sometimes	153	49,04
Often	8	2,56	Often	46	14,74
Every day	2	0,64	Every day	4	1,28
Total	312	100,00	Total	312	100,00
					0
Once or twice	109	34,94	The frequency distribution of oral health related quality of life in the functional limitations domain is shown in Table 6. Table 6 shows the frequency distribution of quality of life in the functional limitation domain including 12 questions: (1) whether you have experienced pain in your teeth, (2) whether		
Sometimes	74	23,72			
Often	17	5,45			
Every day	1	0,32			
Total	312	100,00			

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you have experienced bleeding gums, (3) whether you have experienced mouth sores, (4) whether you have experienced bad breath, (5) whether you have experienced food slipping between your teeth, (6) whether you have breathed with your mouth, (7) whether you have taken longer than other people, (8) whether you have experienced difficulty sleeping, (9) whether you have experienced difficulty chewing food, (10) whether you have experienced difficulty opening your mouth, (11) whether you have experienced difficulty saying words, (12) whether you have experienced difficulty eating the food you want. For whether they have experienced pain in the teeth, the highest frequency is sometimes, 102 students (32.69%). For whether they have experienced bleeding gums, the highest frequency is never at 111 students (35.58%). For whether they have experienced mouth sores, the highest frequency is never at 108 students (34.62%). For whether they have ever felt bad breath, the highest frequency is sometimes 176 students (56.41%). For whether ever felt food slipping between the teeth, the highest frequency was often 135 students (43.27%). For whether ever breathed with the mouth, the highest frequency was never 135 students (43.27%). For whether they have ever taken longer to eat than other people, the highest frequency was sometimes 153 students (49.04%). For whether they have ever felt difficulty sleeping, the highest frequency was sometimes 107 students (34.29%). For whether ever felt difficulty chewing food, the highest frequency was sometimes 99 students (31.73%). For whether they had difficulty opening their mouths, the highest frequency was never 127 students (40.71%). For whether they had difficulty saying words, the highest frequency was never 241 students (77.24%). For whether ever had difficulty with the desired food, the highest frequency was never at 195 students (62.50%).

Table 7. Frequency Distribution of Oral Health Related Quality of Life Domain Emotional Well-Being

Oral Health Related Quality of life	Frequency (n)	Percentage %
EMOTIONAL WELL-BEING DOMAIN		
Have you ever found it difficult to drink using a straw		
Never	166	53,21
Once or twice	59	18,91
Sometimes	65	20,83
Often	21	6,73
Every day	1	0,32
Total	312	100,00
Do you ever feel frustrated with the condition of your teeth and mouth?		

Oral Health Related Quality of life	Frequency (n)	Percentage %
Never	104	33,33
Once or twice	62	19,87
Sometimes	87	27,88
Often	43	13,78
Every day	16	5,13
Total	312	100,00
Do you ever feel unsure of yourself		
Never	54	17,31
Once or twice	57	18,27
Sometimes	95	30,45
Often	78	25,00
Every day	28	8,97
Total	312	100,00
Do you ever feel embarrassed about the condition of your teeth and mouth		
Never	23	7,37
Once or twice	48	15,38
Sometimes	105	33,65
Often	113	36,22
Every day	23	7,37
Total	312	100,00
Do you ever worry what other people think about your oral condition?		
Never	66	21,15
Once or twice	51	16,35
Sometimes	93	29,81
Often	72	23,08
Every day	30	9,62
Total	312	100,00
Do you ever worry that your teeth and mouth are not as good as others?		
Never	55	17,63
Once or twice	44	14,10
Sometimes	73	23,40
Never	55	17,63
Often	98	31,41
Every day	42	13,46
Total	312	100,00
Do you ever feel annoyed		
Never	26	8,33
Once or twice	29	9,29
Sometimes	102	32,69
Often	106	33,97
Every day	49	15,71
Total	312	100,00
Do you ever feel nervous		

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Oral Health Related Quality of life	Frequency (n)	Percentage %
Never	33	10,58
Once or twice	54	17,31
Sometimes	114	36,54
Often	90	28,85
Every day	21	6,73
Total	312	100,00
Do you ever worry that you are not as healthy as other people?		
Never	88	28,21
Once or twice	52	16,67
Sometimes	101	32,37
Often	52	16,67
Every day	19	6,09
Total	312	100,00
Do you ever worry that you are different from others		
Never	84	26,92
Once or twice	59	18,91
Sometimes	66	21,15
Often	77	24,68
Every day	26	8,33
Total	312	100,00
Have you ever missed school due to illness, doctor's appointment, or surgery?		
Never	108	34,62
Once or twice	175	56,09
Sometimes	0	0,00
Often	29	9,29
Every day	0	0,00
Total	312	100,00
Have you ever had trouble paying attention in school?		
Never	65	20,83
Once or twice	58	18,59
Sometimes	131	41,99
Often	52	16,67
Every day	6	1,92
Total	312	100,00

The frequency distribution of oral health related quality of life in the emotional well-being domain is shown in Table 7. Shows the frequency distribution of the quality of life of the emotional well-being domain consisting of 12 questions including: (1) whether they ever have difficulty drinking using a straw, (2) whether they ever feel frustrated, (3) whether they ever feel unsure, (4) whether they ever feel

embarrassed about the condition of their teeth and mouth, (5) whether they ever feel worried about what other people think about the condition of their teeth and mouth, (6) whether they ever feel worried that the condition of their teeth and mouth is not as good as other people, (7) whether you have ever felt upset, (8) whether you have ever felt nervous, (9) whether you have ever felt worried that you are not as healthy as others, (10) whether you have ever worried that you are different from others, (11) whether you have ever missed school, doctor's appointments, or surgery (12) whether you have ever had difficulty paying attention at school. For whether it is ever difficult to drink using a straw, the highest frequency is never, 166 students (53.21%). For whether you have ever felt frustrated, the highest frequency was never, 104 students (33.33%). For whether they ever felt unsure, the highest frequency was sometimes 95 students (30.45%). For whether you have ever felt embarrassed by the condition of your teeth and mouth, the highest frequency was often 113 students (36.22%). For whether ever feel worried about what other people think about the condition of teeth and mouth, the highest frequency is sometimes 93 students (29.81%). For whether you ever feel worried that the condition of your teeth and mouth is not as good as other people, the highest frequency is often 98 students (31.41%). For whether ever felt upset, the highest frequency was often 106 students (33.97%). For whether you ever feel nervous, the highest frequency is sometimes 114 students (36.54%). For whether you ever feel worried that you are not as healthy as other people, the highest frequency is sometimes at 101 students (32.27%). For whether you have ever worried that you are different from other people, the highest frequency was never at 84 students (26.92%). For whether you have ever missed school, a doctor's appointment, or surgery, the highest frequency was once or twice, 175 students (56.09%). For whether you ever have difficulty paying attention to lessons at school, the highest frequency was sometimes (131 students (41.99%)).

Table 8. Frequency Distribution of Oral Health Related Quality of Life Domain Social

Oral Health Related Quality of life	Frequency (n)	Percentage %
DOMAIN SOCIAL		
Do you ever find it difficult to do your homework		
Never	128	41,03
Once or twice	56	17,95
Sometimes	90	28,85
Often	33	10,58
Every day	5	1,60
Total	312	100,00
Do you ever not want to speak loudly in class		
Never	90	28,85
Once or twice	73	23,40
Sometimes	81	25,96

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Often	54	17,31
Every day	32	10,26
Total	312	100,00
Have you ever avoided school activities		
Never	162	51,92
Once or twice	79	25,32
Sometimes	50	16,03
Often	18	5,77
Every day	3	0,96
Total	312	100,00
Do you ever not want to talk to other children		
Never	124	39,74
Once or twice	83	26,60
Sometimes	78	25,00
Often	23	7,37
Every day	4	1,28
Total	312	100,00
Have you ever avoided laughing with other children		
Never	159	50,96
Once or twice	69	22,12
Sometimes	54	17,31
Often	27	8,65
Every day	3	0,96
Total	312	100,00
Do you ever feel afraid to joke with other children		
Never	137	43,91
Once or twice	69	22,12
Sometimes	75	24,04
Often	25	8,01
Every day	6	1,92
Total	312	100,00
Do you ever feel like being alone during school activities		
Never	76	24,36
Once or twice	86	27,56
Sometimes	100	32,05
Often	41	13,14
Every day	9	2,88
Total	312	100,00

Have you ever fought with friends or family		
Never	93	29,81
Once or twice	85	27,24
Sometimes	96	30,77
Often	30	9,62
Every day	8	2,56
Total	312	100,00
Do other children ever tease		
Never	138	44,23
Once or twice	84	26,92
Sometimes	64	20,51
Often	20	6,41
Every day	6	1,92
Total	312	100,00
Have you ever been ostracized by friends		
Never	194	62,18
Once or twice	85	27,24
Sometimes	24	7,69
Often	7	2,24
Every day	2	0,64
Total	312	100,00
Do other people ask questions about oral conditions		
Never	76	24,36
Once or twice	86	27,56
Sometimes	100	32,05
Often	41	13,14
Every day	9	2,88
Total	312	100,00
Do you ever want to spend time with other people		
Never	2	0,64
Once or twice	9	2,88
Sometimes	12	3,85
Often	289	92,63
Every day	0	0,00
Total	312	100,00

The frequency distribution of oral health related quality of life in the social domain is shown in Table 8. The frequency distribution of quality of life in the social domain includes 12 questions including: (1) whether you have difficulty doing homework, (2) whether you don't want to talk loudly in class, (3) whether you avoid activities, (4) whether you don't want to talk to other children, (5) whether you avoid laughing with other children or family, (6) whether you feel afraid to joke with others, (7) whether they ever wanted to be alone during school activities, (8) whether they ever fought with other people or family, (9) whether other children ever teased them, (10) whether they ever felt ostracized by others, (11) whether other children ever asked questions about the condition of their teeth and mouth, (12) whether they ever wanted to spend

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time with others. For whether it is ever difficult to do homework, the highest frequency is never at 128 students (41.03%). For whether you ever don't want to talk loudly in class, the highest frequency is never by 90 students (28.85%). For whether they have ever avoided activities, the highest frequency is never by 162 students (51.92%). For whether they did not want to talk to other children, the highest frequency was 124 students (39.74%). For whether ever avoided laughing with other children or family, the highest frequency was never at 159 students (50.96%). For whether they ever felt afraid of joking with other people, the highest frequency was never, 137 students (43.91%). For whether they ever felt like being alone during school activities, the highest frequency was sometimes, 100 students (32.05%). For whether they have ever quarreled with other people or family, the highest frequency is sometimes at 96 students (30.77%). For whether other children ever teased, the highest frequency was never (138 students (44.23%)). For whether they have ever felt ostracized by other people, the highest frequency was never, amounting to 194 students (62.18%). For whether other children ever asked questions about the condition of the teeth and mouth, the highest frequency was sometimes at 100 students (32.05%). For whether they ever wanted to spend time with others, the highest frequency was often 289 students (92.63%).

Table 9. Frequency Distribution of Oral Health Related Quality of Life Scores

Oral Health Related Quality of Life Score	Frequency (n)	Percentage %
0-38	0	0,00
39-73	27	8,65
74-112	209	66,98
113-152	58	18,58

The frequency distribution of oral health related quality of life score is shown in Table 9. The highest prevalence of children's quality of life score was 74-112 with 209 students (66.98%). The average total score of children's quality of life was 101.2 ± 18.79 .

DISCUSSION

This study aims to determine the oral health quality of life and oral hygiene practice patterns in children at SMP PGRI 1 Cibinong in this study the proportion of males and females is almost the same, with the average age of respondents being 13 years old and the majority of respondents being 14 years old. These results are in line with research by Sari MD & Nerito Prima 2024 showing that research at MOJOKERTO Junior High School also found that the average age of respondents was 13 years.¹⁵ Other results in line with research by Farhani AL *et al* 2024 the number of respondents based on age in adolescent students at SMP

Negeri 17 Tasikmalaya showed that the majority of respondents were 14 years old.¹⁵

The results showed that the frequency distribution of dental and oral hygiene practices based on gender in the dentist visit statement, the majority of respondents answered that they did not visit the dentist at all. These results are in line with research by Manuel DH *et al* 2021 which showed that respondents in maintaining oral health showed that 61.6% of respondents had never been to the dentist, only 5.3% routinely visited the dentist less than 6 months a year, and 72.8% of respondents had never been to the dentist in the last 1 year.¹⁶ Preventing oral diseases with regular visits to the dentist is recommended at least once every 6 months, the aim is to prevent tooth decay, prevent gingival and periodontal disease and reduce the risk of systemic diseases caused by poor oral hygiene.^{10,17} In the statement of experiencing toothache, the majority of respondents answered that they never had toothache. These results are not in line with the research of Yuli Gestina & Zuhriya Meilita 2020 which shows that the research taken in Jatiasih Village, Bekasi City, found that (73.33%) of students experienced toothache.¹⁸ In the statement of the frequency of brushing teeth, the majority of respondents answered more than once. Brushing your teeth aims to remove plaque, so it must be done properly and correctly, brushing your teeth at least 2 times a day, in the morning before eating and at night before going to bed, but there are still many who ignore this.^{19,20} In the statement on the use of dental floss, the majority of respondents answered that they had never used a dental cleaning tool, namely dental floss. These results are in line with research by Anggina DN *et al* 2023 showing that most students never use dental floss.²¹ The statement on student candy consumption the majority of respondents answered sometimes. This result is not in line with the research of Adriani *et al* 2024 showing that students rarely consume chewing gum by (57%). Consuming excess sugar intake can have adverse effects on dental health. Excessive consumption of sugar-containing foods and not taking good care of the mouth will result in poor oral health.²² The statement regarding the consumption of sugary drinks the majority of respondents answered rarely. The statement regarding the use of mouthwash, the majority of respondents answered never. The domain of the statement submitted to these students can be seen that more students do not pay attention to oral hygiene practice patterns.

The results showed that the frequency of oral hygiene practice pattern scores had an average score given by researchers to students. The results The highest prevalence for the score of oral hygiene practice patterns was 9-16 as many as 190 students (60.89%). The results of the study are not in line with the research of Jumriani *et al* 2024 which shows that the measurement of dental and oral hygiene practices in students has a dental and oral hygiene practice score of 68.46%.²³

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The results showed that the frequency distribution of oral health related quality of life in the oral symptom domain on the statement of how the condition of oral health was mostly answered quite well. These results are in line with research by Ramadhika AZ *et al* 2019 showing that the quality of life related to oral health is (71.3%).²⁴ In the statement experiencing toothache, most respondents answered sometimes. These results are not in line with research by Avina A *et al* 2022 the domain of the impact of oral symptoms on children shows that most respondents reported that their children had never experienced pain in the teeth, mouth and jaw.¹¹ The results of the frequency distribution study of oral health related quality of life in the functional well-being domain on the statement of whether they have ever had difficulty sleeping, most respondents answered sometimes. These results are in line with research by Wiworo H *et al* 2021 showing that respondents who experienced a low quality of life were 134 students, this could reduce their quality of life regarding oral health.²⁵ In the statement whether you have experienced difficulty chewing food, most respondents answered sometimes. These results are not in line with the research of Oktadewi FD *et al* 2020 showing that the majority of respondents have never experienced functional welfare health problems due to their oral conditions.²⁶ In the statement whether they have experienced difficulty eating what they want, most respondents have never had difficulty eating what they want. These results are in line with the research of Sri Utami, Prasepti DR 2019 showing that 46 students (41.8%) had difficulty eating because many felt disturbed in their study time due to the pain caused by dental and oral problems, thus reducing their quality of life.²⁷ The results of the frequency distribution study of children's quality of life in the emotional well-being domain on the statement whether they have experienced frustration, the majority of respondents answered never. Other results are in line with research by Permatasari *et al* 2019 and Pesaressi *et al* 2020 which state that children's oral health problems do not have much impact on children's psychological conditions.^{26,28} In the statement whether you have ever felt embarrassed, the majority of respondents answered often. These results are in line with research by Veyla Apro, Sari DP 2020 showing that 182 children (33.34%) have a poor quality of life, there is a significant difference between oral health experience and quality of life based on gender.²⁹ In the statement whether they have missed school, doctor's appointments, or surgery, the majority of respondents answered once or twice. In the statement whether it was ever difficult to pay attention to lessons at school, the majority of respondents answered sometimes. These results are in line with the research of Putri NF *et al* 2021 showing that there are (51.6%) students included in the category of learning disorders / lack of influence on children's quality of life related to oral health from the aspect of learning disorders.³⁰ The results of the study on the frequency distribution of oral health related

quality of life in the social domain on the statement whether they ever did not want to speak loudly in class, the majority of respondents answered never. These results are in line with research by Nasia AA *et al* 2022 showing that the social domain most respondents reported that their children never refused to speak because of oral and dental problems.¹¹ In the statement whether they have ever avoided laughing when with other people or family, most respondents answered never. In the statement whether they have ever felt ostracized by others, most respondents answered never. These results are in line with Oktadewi FD *et al* 2020 research showing that 61 students (87.1%) have never been ostracized by other children, this shows that respondents have never experienced social limitations due to their oral health.²⁶

The results showed that the frequency distribution of oral health related quality of life scores was the highest prevalence for children's quality of life scores, namely 74-112 as many as 209 students (66.98%). These results are in line with the research of Ricky Amran 2024 showing the characteristics of respondents based on gender and quality of life. The highest gender was female (64.9%). Quality of life related to the oral cavity gets an average score of 12 ± 73.31 .³¹

CONCLUSION

Based on research at SMP PGRI 1 Cibinong, Bogor Regency, it was concluded that the majority of respondents were 14 years old with an average of 13 years old. The findings show that there are results in the pattern of oral hygiene practices: students have never visited a dentist. The quality of life of children also has several results: the condition of the student's mouth is quite good, never experiencing bleeding gums, never feeling difficulty saying words, sometimes experiencing oral pain, often feeling food tucked between teeth often spending time with others, sometimes feeling frustrated with the condition of teeth and mouth.

It is recommended that oral health services work with schools to improve oral hygiene practice patterns through interesting and relevant education, such as dentist visits, how to brush teeth properly, and the dangers of consuming soft drinks, and it is necessary to educate oral hygiene practice patterns to parents to encourage and take responsibility for their child's oral health by controlling oral hygiene practice patterns at home, and taking their children to the dentist from an early age.

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