

Self-Reported Oral Hygiene in Children and Adolescents in Albania: A Questionnaire-Based Study

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Abstract Objectives: This study aims to investigate oral hygiene knowledge in two samples (urban vs. rural) of Albanian children and adolescents through a questionnaire regarding the actions undertaken and the tools used in their daily oral hygiene routine. **Methods:** Two schools were selected: one in the rural area in the district of Durrës (216 students, boys and girls) and one in the urban area of Durrës (100 students, boys and girls). The children participated voluntarily and with personal responsibility in completing the questionnaire, after the purpose of this scientific work was explained. Full confidentiality is guaranteed for all participants in completing the questionnaire. **Results:** The Kolmogorov-Smirnov and Shapiro-Wilk tests, and the nonparametric Mann-Whitney and Wilcoxon tests were used to run statistical analyses. There is a statistically significant difference between males and females related to oral hygiene practices at home. Additionally, the two populations differ in their oral hygiene practices, both in self-care routines at home and in professional dental care. **Conclusions:** The participant children have sufficient information about oral hygiene, yet the rural population shows less self-practice or professional oral hygiene. In addition, females show higher adherence to oral hygiene practices at home. This study is the first of its kind done in Albania and highlights enduring differences between rural and urban populations, which should be targeted to address equal opportunities for each child.

Keywords Oral Cavities, Oral Hygiene, Questionnaire, Gingivitis, Dental Plaque

1. Introduction

Oral health hygiene is the practice of keeping the mouth cavity clean and in good condition by regular brushing and periodical examination by a health care provider, according to the World Health Organization (WHO) [1]. Oral health differs from early childhood to adulthood, and from country to country, mainly due to the economic conditions [2]. Dental caries is still an unresolved issue worldwide, primarily due to dietary changes. Frequent intake of high-energy foods, foods poor in nutrients and rich in sugar and fat, plays a major role in dental caries [3]. In fact, according to Decayed, Missing, Filled Teeth (DMFT) index the prevalence of dental caries varies among countries, making it necessary to explore caries prevalence and oral health practices in each country, particularly where little data are available. In Albania, some studies showed a DMFT of 3.72 in 12-year-old children, raising an alarm among Albanian population [2,4]. Even though information is scarce, still, nutrition is believed to be the main reason for these DMFT index data among children and adolescents in Albania [5]. Adolescence is a critical time when the body goes through significant changes physically and psychologically [6], and food plays an important role as well. Foods containing calcium and vitamins have an essential function for the dental development reducing the risk of dental caries [7]. However, nourishment has a crucial role in a child's health;

thus, it is also very important to get the right amount of nutrients, such as sugar, which should be around 10% of the total energy consumption, according to the WHO. In fact, Albanian diet has substantially changed since the fall of communist regime, starting in the year 1990. During the communist era there was a very poor diet due to the shortage of food in general. Unfortunately, the difference was even bigger between urban and rural areas. This was reflected in every single sector, including the dental care sector that was heavily affected [8]. Even nowadays the public dental service faces many challenges such as poor accessibility in rural areas [8]. This leads to a chain of other problems such as old equipment; sanitary conditions are quite poor, and the old infrastructure. Taking all these issues into consideration, children mainly refuse to go to the dentist in a public dental clinic [8]. The most recent studies done on oral health care have shown that there is an immediate need to improve the oral health care system in Albania [2,4].

The aim of this study is to investigate oral hygiene knowledge in a sample of children and adolescents through a questionnaire regarding the actions taken and tools used in their daily oral hygiene routine. Plus, to see the differences between rural and urban areas regarding knowledge and information.

2. Methods

In this study 316 children and adolescents in total, from “Besnik Hidri” elementary, middle and high school (216) in the district of Durrës, and “Marie Kaçulini” elementary and middle school (100) in the urban area of Durrës received the questionnaire. The age range was from 6 years old to 18 years old. The questionnaire was distributed to them handily, assuring complete anonymity, and it was prepared by us taking as a reference the study of Sbricoli et al. [9]. Children and adolescents were free to choose whether they wanted to participate in our study. The only criteria were care and honesty in answering the questions. The questionnaire was formulated and distributed on printed paper and began with a short explanation of the study’s purposes. The questionnaire contains questions regarding:

Demographic information: age, gender, school level and residency (urban or rural),

Oral hygiene at home: Brushing frequency, type of toothbrush used, and the duration of each brushing session. Here, additional questions are being asked to explore the use of supplementary hygiene tools such as floss and whether the participants incorporated tongue cleaning as part of their routine.

Professional oral hygiene (at the dentist): familiarity with professional teeth cleaning procedures, and how

frequently children and adolescents receive professional cleanings. For participants undergoing orthodontic treatment, there were questions regarding the use of braces and other orthodontic devices.

Oral hygiene instructions/techniques: from whom children and adolescents get guidance and if they have ever attended oral hygiene sessions organized by dentists at school or elsewhere.

For more, to gain insights into their experiences and attitudes toward dental care, questions were included about their feelings during dental visits and whether any fear of the dentist stemmed from personal or societal experiences.

2.1. Hypothesis

Null hypothesis 1: There are no statistically significant differences between children and adolescents in oral hygiene practices in rural versus urban areas, both in self-care routines at home and in professional dental care.

Null hypothesis 2: There are no statistically significant differences between children and adolescent males versus females in oral hygiene practices, both in self-care routines at home and in professional dental care.

2.2. Statistical Analysis

To test the two hypotheses, data were analyzed using the Mann-Whitney U test, a nonparametric test suitable for comparing two independent groups (urban vs. rural and males vs. females). This test was selected due to the ordinal nature of some responses and the non-normal distribution of variables taken into consideration, confirmed via the Shapiro-Wilk and Kolmogorov-Smirnov tests. Analyses were conducted using SPSS software, with a significance level $\alpha = 0.05$.

2.3. Ethical Approval and Consent to Participate

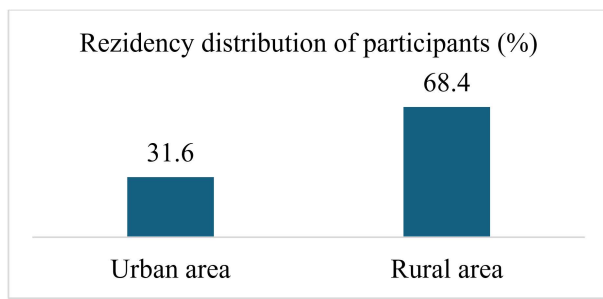
The administration of the questionnaire was approved by the local school authorities. The ethical committee of the school called Bordi Drejtues i Shkollës “Besnik Hidri” and “Marie Kaçulini”, date 26/04/2024, Nr. Ex Prot, Durrës, Albania and parents’ permission was asked too. Informed consent to participate in our study was obtained from parents for every single participant younger than the age of 16. The study adhered to ethical standards by ensuring participants’ anonymity, voluntary participation, and the confidentiality of their responses. Prior to participation, students were briefed on the study’s purpose and given the option to withdraw at any time. All experimental procedures (questionnaire) were approved by the Ethics Committee called Bordi Drejtues i Shkollës “Besnik Hidri” and “Marie Kaçulini”, date 26/04/2024, Nr. Ex Prot, Durrës in accordance with the Code of Ethics of the World Medical Association (Declaration of Helsinki) [10].

3. Results

The questionnaire was completed by 316 students, 216 in the rural area (68.4%) and 100 in the urban area (31.6%) (Table 1 and Graph 1). None of the questionnaires collected were rejected due to filing errors (Figure 1). The ages of the students vary from class II, about 6 years old, to class XII, around 18 years old. In this work, gender equality has been respected, 158 females (50%) and 158 males (50%) (Table 2 and Graph 2).

Table 1. Distribution of participants by place of residency

Residency	Frequency	Percentage
Urban area	100	31.6
Rural area	216	68.4
Total	316	100



Graph 1. Residency Distribution of participants

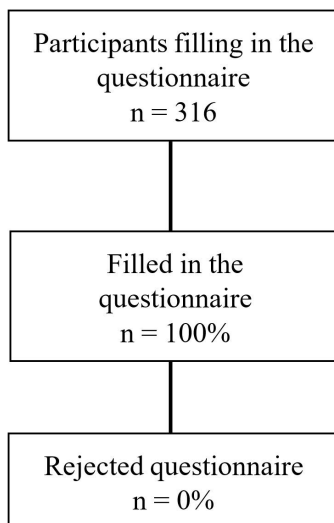
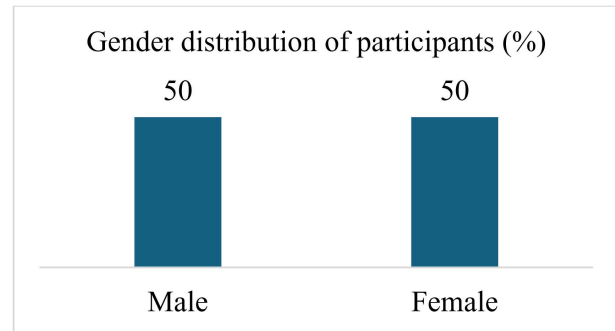


Figure 1. Flowchart of the study

Table 2. Gender distribution of participants

Sex	Frequency	Percentage
Male	158	50
Female	158	50
Total	316	100

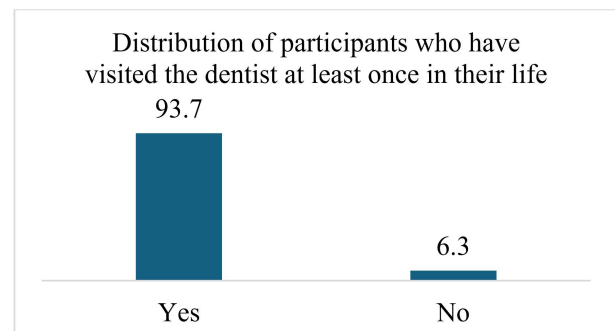


Graph 2. Gender distribution of participants

Out of 316 participants in the questionnaire, 296 (93.7%) said that they went to the dentist at least once in their life and 20 (6.3%) never went (Table 3 and Graph 3).

Table 3. Frequency of participants who have visited the dentist at least once in their life

Have you ever been to the dentist	Frequency	Percentage
Yes	296	93.7
No	20	6.3
Total	316	100



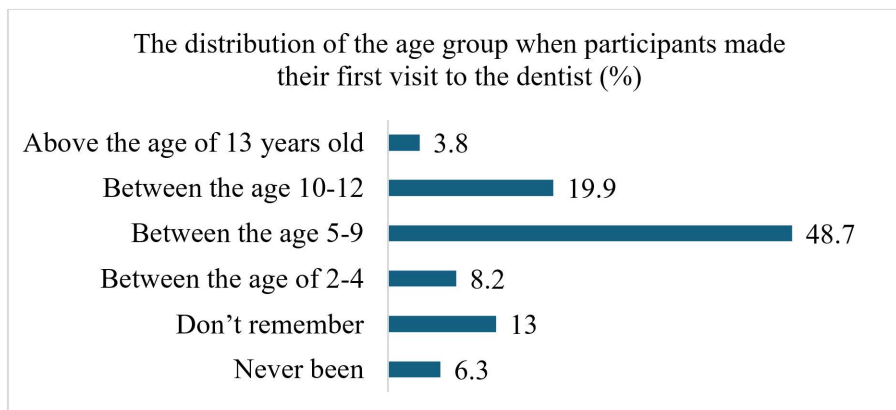
Graph 3. Distribution of participants who have visited the dentist at least once in their life

More specifically, regarding the question "when was your first visit to the dentist, at what age", 154 (48.7%) said that between the ages of 5 and 9, followed by 63 (19.9%) who had gone around the age of 10-12 years, followed by 41 (13.0%) participants, who did not remember, and there were also those who had gone around the age of 2-4, 26 (8.2%). 20 participants (6.3%) had never been to the dentist. A small number 12 (3.8%) had gone for the first time above the age of 13 (Table 4 and Graph 4).

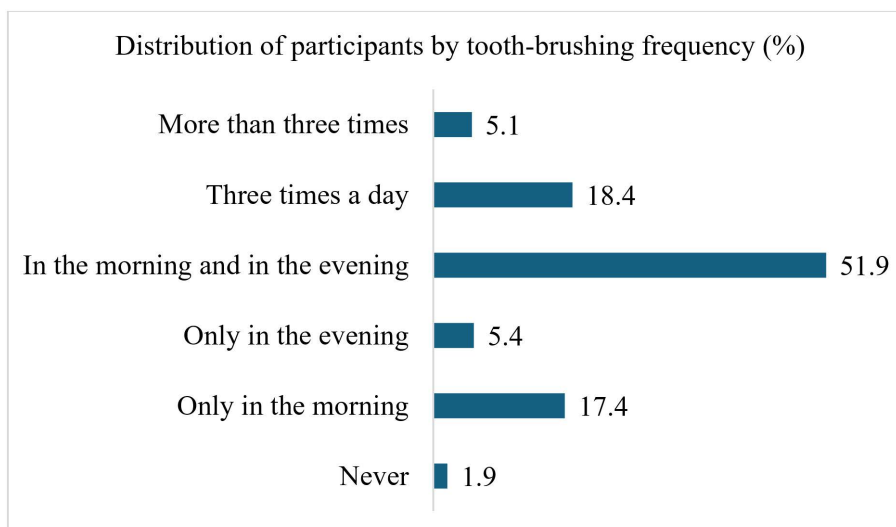
Most of them, 164 (51.90%) stated that they brush their teeth twice a day, while 58 (18.4%) stated that they brush their teeth three times a day. There were also those participants who only brushed their teeth once a day, some of them only in the morning 55 (17.4%) and others only in the evening 17 (5.4%). There were 16 (5.1%) of the participants who cleaned more than three times a day and only 6 (1.9%) of those who never cleaned (Table 5 and Graph 5).

Table 4. Age group when participants made their first dental visit

The first visit to the dentist	Frequency	Percentage
Never been	20	6.3
Don't remember	41	13
Between the age of 2-4	26	8.2
Between the age of 5-9	154	48.7
Between the age of 10-12	63	19.9
Above the age of 13	12	3.8

**Graph 4.** Percentage distribution of the age group when participants made their first visit to the dentist**Table 5.** Frequency distribution of participants by how often they brush their teeth

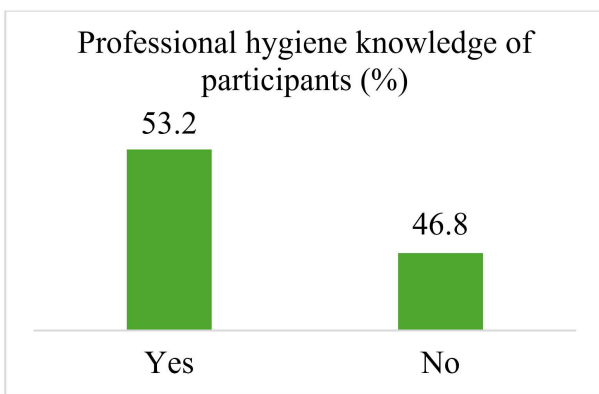
How often do you brush the teeth	Frequency	Percentage
Never	6	1.9
Only in the morning	55	17.4
Only in the evening	17	5.4
In the morning and in the evening	164	51.9
Three times a day	58	18.4
More than three times	16	5.1

**Graph 5.** Distribution of participants by tooth-brushing frequency (%)

Professional oral hygiene was known by 168 (53.2%) participants and was not known by the remaining 148 (46.8%) (Table 6 and Graph 6). Professional oral cleaning was performed by 104 (32.9%), while the majority of participants 212 (67.1%) did not perform it (Table 7 and Graph 7). The data show that 212 (67.1%) had never had professional oral cleaning, only 55 (17.4%) every six months and 49 (15.5%) once a year (Table 8 and Graph 8).

Table 6. Professional hygiene knowledge distribution of participants

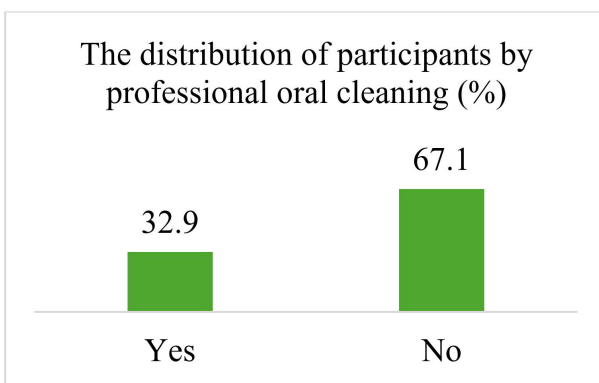
Professional oral hygiene	Frequency	Percentage
Yes	168	53.2
No	148	46.8



Graph 6. The distribution of participants by professional hygiene knowledge (%)

Table 7. The frequency distribution of participants by professional oral cleaning

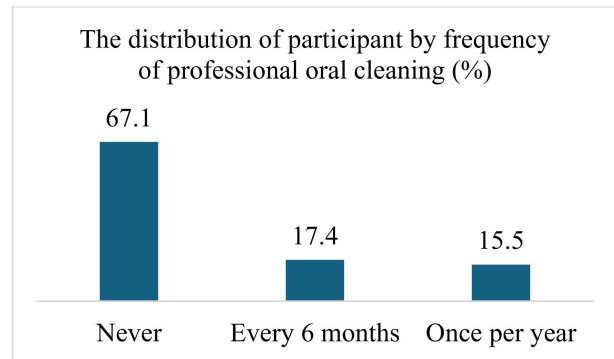
Professional oral cleaning	Frequency	Percentage
Yes	104	32.9
No	212	67.1



Graph 7. The distribution of participants by professional oral cleaning (%)

Table 8. The frequency distribution of participants by frequency of professional oral cleaning

Frequency of professional oral cleaning	Frequency	Percentage
Never	212	67.1
Every 6 months	55	17.4
Once per year	49	15.5



Graph 8. The distribution of participant by frequency of professional oral cleaning (%)

3.1. Hypothesis Testing

Null hypothesis 1: There are no statistically significant differences between children and adolescents in oral hygiene practices in rural versus urban areas, both in self-care routines at home and in professional dental care.

Alternative hypothesis 1: There are statistically significant differences between children and adolescents in oral hygiene practices in rural versus urban areas, both in self-care routines at home and in professional dental care.

Firstly, to test whether location influences oral hygiene practices both in self-care routines at home and in professional dental care, we construct the variables as follows:

Oral hygiene practices in self-care routines at home – calculated as the average of the scores from responses to questions 8 –13, which assess oral hygiene at home.

Oral hygiene practices in professional dental care – calculated as the average of the scores from responses to questions 14 –19, which assess professional oral hygiene.

Table 9 below presents some statistics for two variables: Oral hygiene practices in self-care routines at home and Oral hygiene practices in professional dental care, categorized by areas of residence. It turns out that the mean and standard deviation of the variable Oral hygiene practices in self-care routines at home are greater than the mean and standard deviation of the variable Oral hygiene practices in professional dental care both in urban and rural areas.

Table 9. Some statistics about variables taken into consideration

Descriptive Statistics						
Areas of residence		N	Minimum	Maximum	Mean	Std. Deviation
Urban areas	Oral hygiene practices in self-care routines at home	100	1.50	4.00	2.6533	0.50122
	Oral hygiene practices in professional dental care	100	1.00	2.17	1.4067	0.34355
	Valid N (listwise)	100				
Rural areas	Oral hygiene practices in self-care routines at home	216	1.00	4.17	2.4468	0.47807
	Oral hygiene practices in professional dental care	216	1.00	2.17	1.2708	0.31513
	Valid N (listwise)	216				

Table 10. Results about Tests of Normality for variables in the first column

Variables	Tests of Normality					
	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Oral hygiene practices in self-care routines at home	0.087	316	0.000	0.981	316	0.000
Oral hygiene practices in professional dental care	0.258	316	0.000	0.843	316	0.000
Oral hygiene practices in self-care routines at home in rural areas	0.094	216	0.000	0.975	216	0.001
Oral hygiene practices in self-care routines at home in urban areas	0.109	100	0.005	0.980	100	0.131
Oral hygiene practices in professional dental care in rural areas	0.255	216	0.000	0.814	216	0.000
Oral hygiene practices in professional dental care in urban areas	0.258	100	0.000	0.883	100	0.000

To test the null hypothesis 1, we used the nonparametric Mann-Whitney U test, as the variables Oral hygiene practices in self-care routines at home and Oral hygiene practices in professional dental care are not normally distributed either in the aggregate form or within groups based on areas of residence.

Table 10 presents the results from the two tests of normality: Kolmogorov-Smirnov and Shapiro-Wilk. As all the p values are smaller than the significance value $\alpha=0.05$, we conclude that all the variables listed in the first column of table 9 are not normally distributed.

After performing Mann-Whitney U test, with p-values smaller than 0.05, we reject the null hypothesis and conclude that the two populations of areas of residence are not identical regarding both variables, Oral hygiene practices in self-care routines at home and Oral hygiene practices in professional dental care (Tables 11 and 12). So, there is evidence in favor of the existence of the shift in the locations of the distributions.

In this case, the mean rank for the urban areas of residence group is higher than that for the rural areas of residence group, reflecting that the individuals in urban areas tend to have better oral hygiene practices both in professional dental care and at home.

Null hypothesis 2: There are no statistically significant differences between children and adolescent males versus females in oral hygiene practices, both in self-care routines at home and in professional dental care.

Alternative hypothesis 2: There are statistically significant differences between children and adolescent males versus females in oral hygiene practices, both in self-care routines at home and in professional dental care.

Table 13 presents some statistics for two variables: Oral hygiene practices in self-care routines at home and Oral hygiene practices in professional dental care, categorized by gender. Similar to the case of Areas of Residence, the mean and standard deviation of the variable Oral hygiene practices in self-care routines at home are greater than the mean and standard deviation of the variable Oral hygiene practices in professional dental care for both genders.

Table 14 presents the results from the two tests of normality: Kolmogorov-Smirnov and Shapiro-Wilk, for the new variables added to the study: Oral hygiene practices in self-care routines at home for male/female and Oral hygiene practices in professional dental care for male/female. As all the p values are smaller than the significance value $\alpha=0.05$, we conclude that all the variables listed in the first column of table 14 are not normally distributed.

Again, running Mann-Whitney U test to test the null hypothesis 2, it turns out that while two populations based on gender are not identical regarding Oral hygiene practices in self-care routines at home (p value is 0.006), they do not differ with respect to Oral hygiene practices in professional dental care (p value is 0.156). Tables 15 and 16 present the results after performing Mann-Whitney U test for null hypothesis 2.

From table 15, as the mean rank for the female result indicates that female individuals have better Oral individuals is higher than that for male individuals, this hygiene practices in self-care routines at home.

Table 11. The result from Mann-Whitney U test about areas of residence differences for Oral hygiene practices in professional dental care

	Areas of residence	N	Mean Rank	Sum of Ranks	Test Statistics
Oral hygiene practices in professional dental care	Urban	100	186.17	18617.00	$z = -3.768$
	Rural	216	145.69	31469.00	$p \text{ value} = 0.000$
	Total	316			

Table 12. The result from Mann-Whitney U test about areas of residence differences for Oral hygiene practices in self-care routines at home

	Areas of residence	N	Mean Rank	Sum of Ranks	Test Statistics
Oral hygiene practices in self-care routines at home	Urban	100	181.90	18190.00	$z = -3.118$
	Rural	216	147.67	31896.00	$p \text{ value} = 0.002$
	Total	316			

Table 13. Some statistics about Oral hygiene practices in self-care routines at home and Oral hygiene practices in professional dental care for both genders

Descriptive Statistics						
Gender		N	Minimum	Maximum	Mean	Std. Deviation
Male	Oral hygiene practices in self-care routines at home	158	1.00	4.17	2.4262	0.50493
	Oral hygiene practices in professional dental care	158	1.00	2.17	1.2859	0.31538
	Valid N (listwise)	158				
Female	Oral hygiene practices in self-care routines at home	158	1.50	4.00	2.5981	0.46920
	Oral hygiene practices in professional dental care	158	1.00	2.17	1.3418	0.34265
	Valid N (listwise)	158				

Table 14. Results about Tests of Normality for variables Oral hygiene practices in self-care routines at home for male/female and Oral hygiene practices in professional dental care for male/female

Variables	Tests of Normality					
	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Oral hygiene practices in self-care routines at home for male	0.111	158	0.000	0.971	158	0.002
Oral hygiene practices in self-care routines at home for female	0.106	158	0.000	0.980	158	0.020
Oral hygiene practices in professional dental care for male	0.261	158	0.000	0.827	158	0.000
Oral hygiene practices in professional dental care for female	0.252	158	0.000	0.857	158	0.000

Table 15. The result from Mann-Whitney U test about gender differences for Oral hygiene practices in self-care routines at home

	Gender	N	Mean Rank	Sum of Ranks	Test Statistics
Oral hygiene practices in self-care routines at home	Male	158	144.41	22817.00	$z = -2.759$
	Female	158	172.59	27269.00	$p \text{ value} = 0.006$
	Total	316			

Table 16. The result from Mann-Whitney U test about gender differences for Oral hygiene practices in professional dental care

	Gender	N	Mean Rank	Sum of Ranks	Test Statistics
Oral hygiene practices in professional dental care	Male	158	151.42	23924.00	$z = -1.418$
	Female	158	165.5	26162.00	$p \text{ value} = 0.156$
	Total	316			

4. Discussion

As recently outlined by the World Health Organization, oral health should be on the spot for the next years, to improve overall health in every country signing the Bangkok Declaration [11].

The present study considered the differences between rural and urban areas through a questionnaire regarding oral hygiene habits. Although this study is a local survey, as far as we know, this is the first of its kind done in Albania.

Regardless of the area of residence, our results showed that 93.7% went to the dentist at least once in their life and most of the children, 48.7% declared that they had gone to the dentist for the first time between 5 – 9 years old. Our data are in line with the study of Sbricoli et al., [9] done in Italy, and close enough to the Chinese children who declared to have gone around 4.8 – 5.4 years old [12]. However, the Albanian children show a discordance for the first dental visit with the Polish children who make it around 3.8 years old [13], and with Saudi Arabian children between 3 – 6 years old [13]. According to American Academy of Pediatric Dentistry the optimal time for the first dental visit is between 6 – 12 months old, even though most of the literature suggests that the optimal time for the first dental visit ranges from 1 to 6 years old [9,12,14,15]. Corresponding to the literature and based on our data, we could say that there is no specific age for the first dental visit. In fact, the study of Mileva & Kondeva, [16] suggested that the first visit occurs with the need to go to the dentist due to dental caries. Unfortunately, this often happens due to economic reasons. In Albania, the dental service costs a lot and many people cannot afford it [4,5,8]; thus they go to the dentist only when it is really needed, or even when it is too late. The difference between urban and rural areas is present in this case, as the dental service shows a huge difference between two areas. During the communist period Albania had a good and organized health care system, even better than today, and people did not have to pay; all expenses were covered by the government [8]. After the fall of communism in 1991, the dental service went through privatization. Many private clinics have been opened and mainly in the capital of Albania. These private clinics are very well equipped with modern technology but also very expensive, which is prohibitive for many people that cannot afford it [8]. Although there are many dental clinics, it is a huge difference between urban and rural areas, where private dental clinics are concentrated in cities, and as a result there are almost no dental clinics in rural areas [8]. This could be the reason why almost half of our participants, 46.8%, did not have knowledge about professional oral hygiene. Our statistical results showed a smaller p-value leading us to reject the null hypothesis, concluding that there is a significant difference between two areas. However, we underline that our participants, 51.9%, most of them are in line with the Italian National Guidelines too,

as they brush their teeth twice a day, similar to the participants in the study of Sbricoli et al. [9]. Also, compared to the Scandinavian [17,18] and Portuguese [19] adolescents, our participants are not behind them at all. In fact, despite the area where our participants were located and the economic situation, they brushed their teeth twice a day. We cannot say the same for professional oral cleaning, as it was performed by only 32.9%, while the majority of participants, 67.1%, did not perform it. We believe that the main reason is the economic situation [8,16] due to the high prices that the dentists charge for cleaning. This could also be the reason why our statistical analyses showed a significant difference between male and female in oral hygiene. Females are more responsible as they care more about their external look, while males are more careless about it. Another reason could be young age, as they or their caregivers might believe it is not necessary to do it at this age. Our data show that 67.1% had never had professional oral cleaning, only 17.4% every six months and 15.5% once a year. These data are much lower compared to the Italian adolescents [9]; however, these data are encouraging, considering that the information distributed in schools is not enough in Albania.

Another issue that we have taken into consideration is orthodontic appliances. Our data showed that only 7.3% of our participants had orthodontic appliances. This data should be taken seriously, because the reason why we have so few children with orthodontic appliances is not clear. We think that high costs can be one of the main factors that influence not placing orthodontic appliances [20–22].

School is a very important place for children's education and training, which directly affects children's health. The WHO advises having a special program about oral hygiene and advises it to be an active part of the curriculum of a class/school [22]. A dentist at the school would be very important for providing information and for maintaining the most suitable and good oral hygiene. In fact, such a school program was once part of the school curriculum, both in rural and urban areas, but in recent times it is no longer an active part of it [8].

Early preventive dental visits are very important to reduce costs [23], and educating parents on oral health is a key factor, as parents are the main caregivers and guardians of children's health [24,25]. In fact, even in Albanian culture, the parents play a very important role in the life and health of the child. Despite the area, our data show that 49.1% of participants declared that parents gave them the information regarding oral health, which reinforces even more the fact that the role of the family is irreplaceable in the formation and growth of a child.

4.1. Limitations and Recommendations

Since our work is the first of its kind, to our knowledge, we should be satisfied with the data obtained, but it should not be forgotten that in the future a larger number (sample) of participants should be included for additional

stratification regarding age, gender and socioeconomic status. This can be achieved by organizing meetings between elementary and secondary school children with public health workers and dentists. In fact, for the next question we asked if they had ever attended oral hygiene meetings held by a dentist at school or elsewhere. Only 42.7% answered yes, while the rest 57.3% did not participate. In our opinion, precisely not organizing such meetings between public health workers and dentists for school children, can have a negative impact on children's oral health. We hint at this from the next question, where children were asked if they wanted or needed more information about oral health. Our data showed that most of the participants, 69.6%, had expressed a desire to attend relevant meetings by obtaining more information about oral health. Regardless of whether the children are in our country 69.6% or in Italy 82.2% [9], both groups have expressed the desire and interest in receiving more information about oral health. This data is very encouraging, because it shows that children, regardless of where they are, express the desire and willingness to receive relevant information about oral health.

The WHO advises and has organized various meetings in schools precisely to provide information about oral health [23], so in Albania we must also promote the organization of informative meetings about oral health, where children have the opportunity to receive relevant information.

Another limitation is the number of participants. In fact, 316 children is a good number but still it must be larger; and above all must include children from all areas of the country, Albania.

4.2. Interpretation of Our Hypothesis

We built our questionnaire with the idea and conviction that oral hygiene at home is spread equally everywhere, regardless of which country we live in. In fact, we reviewed the updated literature [9,25,26,27] and our results almost match the results of our colleagues, who have done work and research similar to ours. Based on daily experience, and also from the literature [9,28] about oral hygiene, we built our hypotheses.

In fact, our data showed that there is a significant statistical difference in oral hygiene practices between children and adolescents in rural versus urban areas, both in self-care routines at home and in professional dental care. We think the economic situation [2,4,5,8,20] and the lack of information have brought to a difference between urban and rural areas. Even for us, such a result was very unexpected, because the children had expressed that they had sufficient knowledge about oral hygiene. However, as we have stated before, we must emphasize that the number of participants in the urban area is not equal to the number of participants in the rural area. This difference in numbers may also be the key to these results.

5. Conclusions

The main conclusion of our study was that children have sufficient information about oral hygiene, yet there are differences between the samples (males vs. females, urban vs. rural). This study is the first of its kind done in Albania, to our knowledge, and normally it will need further work. However, although the number of participants is considerable and has given us statistical data, in terms of oral hygiene either at home or professional oral hygiene, in urban and rural areas and males versus females, an even higher number of participants is needed to reach more complete conclusions.

List of Abbreviations

World Health Organization (WHO)
Decayed, Missing, Filled Teeth (DMFT)

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