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Impact of dental caries, malocclusion and oral habits on the oral health-related quality of life of preschool children

Impacto da cárie dentária, maloclusão e hábitos orais na qualidade de vida relacionada à saúde oral em crianças pré-escolares

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ABSTRACT

Introduction: Oral diseases and disorders as well as oral habits can impact the quality of life of children. **Purpose:** To associate the dental caries, malocclusion and oral habits with the quality of life of preschool children. **Methods:** Cross-sectional study with 93 children from three to five years of age who have or have not been affected by untreated carious lesions. Parents answered the questionnaire on oral habits and quality of life instrument related to oral health denominated Early Childhood Oral Health Impact Scale (B-ECOHIS). A pediatric dentist assessed the severity of the carious lesions and the presence of occlusal disorders. The level of significance used was 5%. **Results:** The B-ECOHIS demonstrated impact on quality of life with increasing age in the fields of symptoms, psychological aspects, self-image and social interaction and family function. Dental caries were shown to have an impact on the quality of life of children and their families, especially in relation the domains of symptoms and limitations. Oronasal breathing and pacifier habits negatively impacted the quality of life of children and their families. There was no association between malocclusion and quality of life related to oral health. **Conclusion:** The dental caries, the pacifier suction habits and oronasal breathing demonstrated negative impact on quality of life related to oral health of children.

Keywords: Dental caries; Malocclusion; Habits; Quality of life; Child, Preschool

RESUMO

Introdução: As doenças e desordens bucais, bem como hábitos orais, podem causar impacto na qualidade de vida das crianças. **Objetivo:** Associar a cárie dentária, maloclusão e hábitos orais com a qualidade de vida de crianças pré-escolares. **Métodos:** Estudo transversal com 93 crianças de 3 a 5 anos de idade, acometidas, ou não, por lesões de cárie não tratadas. Os responsáveis responderam ao questionário sobre hábitos orais e ao Questionário sobre a Qualidade de Vida Relacionada à Saúde Bucal de Crianças na Idade Pré-escolar (B-ECOHIS). Um odontopediatra avaliou a gravidade das lesões de cárie e a presença de alterações oclusais. O nível de significância utilizado foi de 5%. **Resultados:** O B-ECOHIS evidenciou impacto na qualidade de vida, conforme o aumento da idade, nos domínios dos sintomas, aspectos psicológicos, autoimagem e interação social e de função familiar. A cárie dentária apresentou impacto sobre a qualidade de vida das crianças e de seus familiares, especialmente em relação aos domínios dos sintomas e limitações. Hábitos de respiração oronasal e chupeta também evidenciaram efeitos negativos na qualidade de vida das crianças e de seus familiares. Não foi observada associação entre maloclusão e qualidade de vida relacionada à saúde oral. **Conclusão:** A cárie dentária, os hábitos de sução de chupeta e de respiração oronasal demonstraram impacto negativo na qualidade de vida relacionada à saúde oral das crianças.

Palavras-chave: Cárie dentária; Má oclusão; Hábitos; Qualidade de vida; Pré-escolar

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INTRODUCTION

The oral health-related quality of life (OHRQOL) is a subjective and multidisciplinary aspect which has been studied in several countries. It embraces broad issues in its concept, such as physical, family and leisure characteristics, etc[1,2,3,4].

In Brazil, there are two validated instruments to assess OHRQOL in children[5,6], the Brazilian Early Childhood Oral Health Impact Scale (B-ECOHIS)[7] and the Scale Oral Health Outcomes for five-year-old children (SOHO-5)[6]. The B-ECOHIS is designated for children from 2 to 5 years old[5,8] and its use helps to increase knowledge about adverse oral conditions which affect children's quality of life[3,4,9,10].

Studies have shown that dental caries present negative impact on quality of life of children and their families, including nutrition aspects, behavioral oral symptoms and educational alterations[1,2,3,4]. Other oral alterations, such as malocclusions, have also been associated with quality of life worsening[3,11,12], mainly in relation to psychosocial issues and functional limitations.

The presence and the severity of dental caries are related to oral habits of children[13]. A systematic review suggested the use of pacifiers and bottles, mainly at night, as a predisposing factor for caries, because of the flow and salivary neutralization decrease – leading teeth to fermentable carbohydrates exposure -, and also the cariogenic diet condition. The authors also observed the impact on sleep quality, since children with dental caries wake up more frequently at night and receive higher quantity of bottles[14].

The influence of oral habits on the orofacial myofunctional system was described in literature[15,16], especially the prolonged habits of suction and the oronasal breathing in children. However, there is a gap in relation to the association between oral habits and preschool children quality of life, using instruments about OHRQOL. Thus, knowing the impact of oral habits, dental caries lesions and malocclusions on OHRQOL and being able to precociously intervene in these situations will help in the reestablishment and/or in the direction to adjust the stomatognathic system.

Based on the previous descriptions, the purpose of this study was to associate the dental caries, malocclusion and oral habits with the quality of life of preschool children and their family members.

METHODS

This study was submitted to the central ethics committee from *Universidade Federal do Rio Grande do Sul* and approved (number 19236). The children's legal guardians, who agreed to participate in this study, received instructions and signed the free and clarified consent term.

This is a cross-sectional study. There were 167 eligible children, from 3 to 5 years old, without history of neurological diseases and craniofacial abnormalities, affected, or not, by untreated dental caries lesions, who were waiting for assistance at the institutional pediatric dental clinic. From them, 74 children were excluded, because of situations like: legal guardians who did not accept to participate in the study, previous dental treatment, age incompatible with the report, and not found reports. The final sample consisted of 93 children.

The sample size was measured considering the results of a study which evaluated the OHRQOL of children with dental caries[6]. In this study, the authors used the B-ECOHIS[17] for OHRQOL, and the dmft index[18] and severity[13] for the dental caries index. Based on the mentioned study, and considering the B-ECOHIS score as primary outcome, assigning a power of 85% and a significance level of 5%, 84 individuals were selected, through the software WINPEPI, 2003, v.8.

For the dental diagnosis (caries and malocclusion), the subjects were assessed by an expert evaluator, a pediatric dentist. The oral conditions assessment was performed through dental equipment, under lighting and after prophylaxis of hemi arch, with Robinson brush and prophylactic fluoride toothpaste.

The diagnosis of caries injuries and the severity analysis were based on the dmft index[18], which allows professionals to measure and to compare the dental caries experiences in populations. The dmft classification was based on a study[13] and it is frequently used in dental researches about OHRQOL[4,10], dividing the children into: dmft 0 = free of caries, dmft 1-5 = low severity, dmft $\geq$ 6 = high severity.

The malocclusion was classified as: anterior open-bite, posterior open-bite, overbite, anterior crossbite, unilateral posterior crossbite and bilateral posterior crossbite, according to the World Health Organization[18].

The B-ECOHIS questionnaire[19] was used to evaluate the OHRQOL, and it was responded by the childrens' guardians. The B-ECOHIS consists of 13 questions: nine about impact on children (symptoms – one question; limitations – four questions; psychological – two questions; self image and social interaction – two questions) and four about impact on family (parents' anxiety – two questions; family function – two questions). For each item, it is assigned a scored response: 0 = never; 1 = almost never; 2 = sometimes; 3 = frequently; 4 = very frequently; 5 = I don't know.

The children's guardians also responded a questionnaire about oral habits, created by this study's researchers and based on literature[13] (Appendix 1). The breathing condition was clinically verified, through the 'breathing' item from the protocol of Orofacial Myofunctional Evaluation with Scores (OMES)[20]. The 3 points scale was managed according to the protocol authors' suggestions. Score 3 was attributed to nasal breathing, when the lips remained occluded, without effort, mainly during the resting state, maintaining the functional space free. Score 3 was attributed when the subjects, breathing, presented air inhalation through the nasal and oral cavities,

simultaneously, even when they were able to perform only nasal inhalation, without showing signs of tiredness and shortness of breath. Score 1 was attributed when the subjects, trying to perform nasal inhalation, in a few minutes, presented tiredness, shortness of breath and they opened the mouth to breath. The assessment was performed by a speech language therapist, who was different from the one who applied the questionnaire about oral habits.

At the same moment of the dental and speech and language assessment, the instrument B-ECOHIS and the questionnaire about oral habits were applied. Both were read out and the guardians' responses were registered. The management of the oral habits questionnaire and of the B-ECOHIS protocol was performed by an only examiner, who was previously trained in paused reading and constant intonation, to apply each question and to show the responses options, when they existed.

The professionals from both areas were blinded for the evaluation of each other, not to have proximity for foregone conclusion. All the subjects who participated in this research, in cases of alterations related to dental and speech language aspects were referred to screening, as the respective services, according to each necessity.

For the data statistical analysis, it was used the software Statistical Package for the Social Science (SPSS), v.18.0 for Windows®. The B-ECOHIS scores were described through median and interquartile amplitude, because of variable asymmetry. So, the nonparametric tests were performed to evaluate the associations between the dependent variable (OHRQOL, measures through B-ECOHIS) and the independent variables (classification according to the number of caries injuries, malocclusion, etc). In the comparison of the B-ECOHIS median scores, between the groups, the Mann-Whitney or Kruskal-Wallis' tests were applied. In association with dozens of continuous variables, the Speerman's correlation test was applied. The association of the categorical variables was evaluated through the Pearson's Chi-Square test or Fisher's exact test. The significance level was 5%.

RESULTS

From the children, 48 (51.6%) were male, with age average of 4 years and 6 months ± 0.8 years. They were divided in three groups, according to age groups: 29 (31.2%) children were from 3 years to 3 years and 11 months; 30 (32.3%) children were from 4 years to 4 years and 11 months and 34 (36.6%) children were from 5 years and 5 years and 11 months.

According to the dmft index, 49 (52.7%) children were free of caries, 18 (19.4%) of them presented low severity caries, and 26 (28%) of them presented high severity caries. The malocclusion was present in 43 (46.2%) children.

From the sample total, 80 (86%) presented some type of oral habit, considering that many children presented a combination of two or more habits. In relation to the bottle use, 80 (86%) children used it at some moment of their childhood, and 50 (53.8%) children still use it. The bottle use before sleeping was verified in 72 (77.4%) subjects and, in the middle of the night, it was used by 34 (36.6%) of the children. The pacifier use was reported in 46 (49.5%) children, and 26 (56.5%) of them still use it. The habit of digital sucking was present in 11 (11.8%) children and 8 (8.6%) of them still do it. The clinical breathing assessment showed that 28 (30.1%) children presented oronasal breathing.

In general, the children's guardians reported higher impacts related to the children than to the families. The gender was not significantly associated with the B-ECOHIS scores. However, these scores indicated difference (p=0.002) related the age groups, showing that the quality of life impact increased according to age, in relation to the symptoms (p=0.011), psychological aspects (p=0.031), self image and social interaction (p=0.002) and family function (p=0.003) (Table 1).

Among the analyzed clinical conditions, there was direct relationship between OHRQOL and caries severity, considering the B-ECOHIS general median. In the comparison between dental caries and the children's age groups, there was no difference among the groups (p=0.518), as well as there was no association with gender (p=0.479) (Table 2).

The use of pacifier presented association with self image and social interaction. The oronasal breathing presented difference, in comparison with the B-ECOHIS general median (Table 3).

DISCUSSION

Oral health is essential for quality of life in several aspects, such as physical, social and psychological. The feeding skill and the occurrence of pain or discomfort are usually considered the most relevant positive and negative aspects for quality of life[17].

Studies which verified the children's guardian responses for the B-ECOHIS[1,2,3,4] indicated that the dental caries' impact on children's life is associated, more frequently, to the symptoms, limitations and psychological aspects, confirming the results of this study. The children's age group was related to the impact on OHRQOL, in relation to symptoms, psychological aspects, self image and social interaction. It may be justified by the fact that the children's psychological development occurs when they are about 5-6 years old, when they start to worry about self image and other aspects[9]. The family function also presented association with age groups. However, it was not found studies to justify this finding. A study suggested that, although the use of secondary respondents is considered a possible alternative[8], some aspects may be differently interpreted on the guardians' perspective.

Items related to symptoms of parents' anxiety were frequently reported on the family impact session[1,2,3,10], topic which was also observed in this study. It must be considered, in this finding, the fact that the guardians were looking for assistance, demonstrating concern, especially about dental

Table 1. Frequency of the impact on quality of life of children from 3 to 5 years old and their families, according to the guardians' answers, because of teeth problem (n=93)

Impact section	Domains	Never	Almost never	Sometimes	Frequently	Very frequently	I don't know
		n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Section of impact on children							
How often does your child...							
Feel teeth, mouth and jaw pain?	DS	39 (41.9)	13 (14.0)	28 (30.1)	11 (11.8)	2 (2.2)	0 (0.0)
How often does your child...because of teeth problems or dental treatments?							
Have difficulties to have hot or cold drinks	DL	68 (73.1)	5 (5.4)	12 (12.9)	5 (5.4)	1 (1.1)	2 (2.2)
Have difficulty to eat certain types of food	DL	61 (65.6)	5 (5.4)	20 (21.5)	4 (4.3)	1 (1.1)	2 (2.2)
Have difficulties to pronounce any Word	DL	79 (84.9)	4 (4.3)	6 (6.5)	2 (2.2)	0 (0.0)	2 (2.2)
Missed nursery, kindergarten or school	DL	80 (86.0)	4 (4.3)	5 (5.4)	3 (3.2)	0 (0.0)	1 (1.1)
Have difficulty to sleep	DP	68 (73.1)	7 (7.5)	12 (12.9)	5 (5.4)	0 (0.0)	1 (1.1)
Get angry	DP	65 (69.9)	7 (7.5)	13 (14.0)	6 (6.5)	1 (1.1)	1 (1.1)
Avoid smiling or laughing	DAIS	76 (81.7)	4 (4.3)	7 (7.5)	4 (4.3)	2 (2.2)	0 (0.0)
Avoid sleeping	DAIS	84 (90.3)	2 (2.2)	4 (4.3)	1 (1.1)	2 (2.2)	0 (0.0)
Section of family impact							
How often have you or another family member... because of teeth problems or dental treatment of your child?							
Get angry	DAP	69 (74.2)	5 (5.4)	6 (6.5)	9 (9.7)	4 (4.3)	0 (0.0)
Feel guilty	DAP	64 (68.8)	8 (8.6)	14 (15.1)	0 (0.0)	7 (7.5)	0 (0.0)
Misses work	DFF	70 (75.3)	9 (9.7)	7 (7.5)	7 (7.5)	0 (0.0)	0 (0.0)
How often has your child have dental problems or have dental treatment which caused financial impact to your family?	DFF	78 (83.9)	3 (3.2)	6 (6.5)	5 (5.4)	1 (1.1)	0 (0.0)

Subtitle: SD = Symptoms Domain; LD = Limitations Domain; PD = Psychological Aspects Domain; SID = Social Interaction and Self Image Domain; PAD = Parents' Anxieties Domain; FD = Family Function Domain

Table 2. Difference between the oral clinical conditions for each domain and for the total of the Early Childhood Oral Health Impact Scale, presented in median (minimum-maximum)

	DS	DL	DP	DAIS	DAP	DFF	Total B-ECOHIS
Total Sample	1(0-2)	0(0-2)	0(0-2)	0(0-0)	0(0-3)	0(0-1.5)	4(0-12.5)
Classification							
Free of caries	0(0-2)	0(0-1)	0(0-0)	0(0-0)	0(0-0.5)	0(0-0)	1(0-6)
Low severity	1(0-2)	1(0-4.25)	0(0-2)	0(0-1)	2(0-3.25)	0(0-2)	6.5(0.75-14.25)
High severity	2(1-3)	2(1.75-5)	2(0-4)	0(0-2)	3(0-5.25)	0(0-2)	11.5(4.75-16.5)
p-value	0.003#	<0.001#	<0.001#	0.117#	<0.001#	0.128#	<0.001#
Malocclusion							
Present	1(0-2)	0(0-4)	0(0-2)	0(0-2)	0(0-3)	0(0-2)	6(0-14)
Absent	1(0-2)	0(0-2)	0(0-1.25)	0(0-0)	0(0-3)	2(0-6)	4(0-10.25)
p-value	0.723*	0.578*	0.437*	0.073*	0.857*	0.546*	0.616*

Kruskal Wallis test

* Mann Whitney test

Subtitle: SD = Symptoms Domain; LD = Limitations Domain; PD = Psychological Aspects Domain; SID = Social Interaction and Self Image Domain; PAD = Parents' Anxieties Domain; FD = Family Function Domain; B-ECOHIS = Early Childhood Oral Health Impact Scale

Table 3. Distribution of oral habits for each domain and for the total of the Early Childhood Oral Health Impact Scale, presented in median (minimum-maximum)

Oral habits	SD	LD	PD	SID	PAD	FD	Total B-ECOHIS
Pacifier							
Present	1(0-4)	0(0-10)	0(0-6)	0(0-8)	0(0-8)	0(0-6)	6(0-32)
Absent	1(0-4)	0(0-8)	0(0-6)	0(0-8)	0(0-7)	0(0-5)	2.5(0-26)
p-value	0.387	0.323	0.369	0.010*	0.379	1.000	0.199
Finger							
Present	1(0-4)	1(0-8)	0(0-5)	0(0-3)	2(0-6)	0(0-6)	7(0-24)
Absent	1(0-4)	0(0-10)	0(0-6)	0(0-8)	0(0-8)	0(0-6)	4(0-32)
p-value	0.365	0.497	0.906	0.899	0.506	0.419	0.505
Onychophagy							
Present	0(0-2)	0(0-4)	0(0-3)	0(0-2)	0(0-4)	0(0-0)	1(0-16)
Absent	1(0-2)	0(0-2)	0(0-2)	0(0-0)	0(0-3)	0(0-2)	4.5(0-11.25)
p-value	0.501	0.759	0.501	0.052	0.870	0.528	0.606
Objects into the mouth							
Present	1(0-2)	0(0-2)	0(0-2)	0(0-0)	0(0-3)	0(0-2)	3(0-10)
Absent	1(0-2)	1(0-3)	0(0-2)	0(0-0)	0(0-3)	0(0-1)	4.5(0-13.75)
p-value	0.798	0.133	0.796	0.907	0.709	0.395	0.432
Mouth breathing							
Present	1(0-2)	1(0-4)	0(0-2)	0(0-1)	0(0-3)	0(0-2)	6(0-15)
Absent	0.5(0-2)	0(0-2)	0(0-0.25)	0(0-0)	0(0-1.25)	0(0-0)	1(0-6.25)
p-value	0.128	0.011*	0.069	0.018*	0.046*	0.007*	0.006*
Bottle							
Present	1(0-4)	0(0-10)	0(0-6)	0(0-8)	0(0-8)	0(0-6)	5(0-32)
Absent	1.5(0-3)	1(0-8)	0(0-6)	0(0-2)	0(0-6)	0(0-3)	3.5(0-26)
p-value	0.659	0.826	0.547	0.594	0.661	0.340	0.827
Bottle BS							
Present	1(0-4)	0(0-10)	0(0-6)	0(0-8)	0(0-8)	0(0-6)	6(0-32)
Absent	1(0-3)	0(0-2)	0(0-4)	0(0-8)	0(0-4)	0(0-2)	2(0-14)
p-value	0.935	0.401	0.613	0.153	0.352	0.260	0.274
Bottle AN							
Present	1(0-4)	1(0-8)	0(0-6)	0(0-8)	2(0-7)	0(0-6)	6(0-27)
Absent	1(0-4)	0(1-10)	0(0-6)	0(0-8)	0(0-8)	0(0-6)	2(0-32)
p-value	0.659	0.826	0.547	0.594	0.661	0.340	0.827

*Significant values (p<0.05) –Mann Whitney's test

Subtitle: SD = Symptoms Domain; LD = Limitations Domain; PD = Psychological Aspects Domain; SID = Social Interaction and Self Image Domain; PAD = Parents' Anxieties Domain; FD = Family Function Domain; Bottle BS = Bottle before sleeping; Bottle AN= Bottle in the middle of the night; B-ECOHIS = Early Childhood Oral Health Impact Scale

caries. Thus, as the selected children were waiting for dental assistance, these results may be relevant for the clinical environment, complemented by epidemiological studies, which also proved the impact of preschool children's precocious caries on their quality of life[2,3,21].

A research performed in Brazil, with children from 2 to 5 years old, reported that the prevalence of any impact on OHRQOL was almost three times higher for children with dental caries, in comparison with free of caries children and, approximately, 1.5 times higher for the ones with malocclusion[3]. Similar results were found in the present study and in another one[4], demonstrating that the impact of OHRQOL problems increase, as the caries severity becomes more severe. Thus, it is perceived the importance of the control of the disease, because, when it is installed, it may cause damage for these children's OHRQOL

The malocclusion causes important impact on individuals, in relation to well-being, functional and social limitations[3,12]. However, there was not any evidence, in this study, of association between malocclusion and impacts related to oral health. It suggested that the B-ECOHIS was not created to measure the impact of several malocclusions on QVRSO and

that some issues in the symptoms and limitations areas are not, necessarily, for children with malocclusion.

About oral habits, a study performed with individuals from 4 to 17 years old, which compared mouth breathers (MB) and nasal breathers (NB), detected that the oral breathing seems to be associated with the negative impact on OHRQOL, mainly in relation to nasal problems, sleeping and eating[22]. Another study, which evaluated the MB prevalence in children from a Brazilian school, verified that the incidence of snore, sleep drooling, active sleep and waking up at night was significantly higher in MB, in comparison with NB[23]. In this study, there was higher impact of oronasal breathing on OHRQOL, in relation to self image and social interaction and of family function. According to researches, children's mouth breathing, when it is not previously diagnosed, may cause psychological, behavioral and physical consequences and problems of social interaction[24,25].

Biological and social aspects may be related to non-nutritive sucking habits[26,27,28]. In the present study, it was observed impact of pacifier sucking habit on OHRQOL, with regard to self image and social interaction. The literature points out that the persistence of these non-nutritive sucking habits, after early childhood, may be a sign of psychological disorders[29]. The significant prevalence of non-nutritive sucking habits in children from 3 to 5 years old was observed, and the pacifier sucking habit was more prevalent than finger sucking.

The dental caries severity is associated with the early childhood oral habits. A study observed that the presence and the severity of dental caries on the anterior teeth were significantly higher in children who frequently used the bottle, with sweet liquid, and, then, fell asleep or were feed during sleeping, without proper oral hygiene, compared with children who did not present this practice. The development of dental caries is also related to the use of sweetened pacifiers[13,14]. Researchers counted *streptococcus mutans*, main bacteria related to dental caries, and the analysis of salivary flow in children with MB and NB. It was observed that the salivary flow in MB was higher than in the control group, which consisted of NB, showing compensatory mechanisms, by the mucosal dryness. Moreover, less salivary immunoglobulin anti-*streptococcus mutans* IgA and IgM were found in MB. It is inferred that those individuals had less resistance to dental caries than the control group's subjects. About the microorganism counting, it was detected higher amount in MB than in NB, but not significant[30].

Therefore, it is possible to consider the existence of a relationship between oral habits and dental caries severity, and it may be a reason for the association between oronasal breathing or pacifier use and OHRQOL worsening.

It was not possible to find studies about the impact of oral habits on OHRQOL, using the B-ECOHIS, in order to be compared with the present studies. Thus, more researches about this subject are necessary, because of the significant prevalence of oral habits in the studied age group, as well as the influence they can generate to the OHRQOL of the children and their relatives.

The limitations of this study were inherent to cross-sectional studies, which limit the investigation of causality among the studied variables. Another potential limitation of the study is related to the fact that the B-ECOHIS assesses the children guardians' perception, which can be different from the children's perception about their OHRQOL.

CONCLUSION

Dental caries, pacifier sucking habits and oronasal breathing demonstrate negative impact on quality of life related to the studied children's oral health, as well as to their families'. So, intervention is extremely important in early stages of children's life, because these oral conditions interfere in the domains of symptoms and limitations, and also in the psychosocial environment, impairing children's functions, autonomy and leisure.

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Appendix 1. Questionnaire about oral habits

Name (initials): _____
Subject number: _____
Age: _____years _____ months Gender: ☐ F ☐ M
Years of study - mother: _____ father: _____
Family income: _____

The questions below are related to your child.

Was he/she breastfed? ( ) yes ( ) no
Up to how old (months)? _____
Up to how old (months) was he/she only breastfed? _____
How old was he/she (months) when other types of food were started in his/her diet?
( ) water _____ ( ) tea _____ ( ) juice _____ ( ) other milk _____ ( ) soda _____( ) cookies/crisps _____
( ) smashed fruits _____ ( ) salty smashed food _____ ( ) sugar _____ ( ) grains/pieces _____
How old (months) was the child when he/she was introduced to a glass? _____

Did he/she use a bottle? ( ) yes ( ) no
What type of pacifier did he/she use? ( ) regular ( ) orthodontic
Since when (months)? _____ Up to how old (months)?_____
How often (currently or when he/she stopped)? _____ per day
Used it at night? ( ) yes ( ) no Up to how old (months)? _____
At what moment? ( ) before sleeping ( ) during the night ___times
Composition: ( ) milk (lactose) ( ) milk (soy) ( ) sugar ( ) another complement _____

Use(d) pacifier? ( ) yes ( ) no
What type of pacifier? ( ) regular ( ) orthodontic
Since how old (months)? _____ Up to how old (months)? _____
How often? ( ) morning ( ) afternoon ( ) night
Was it used a substance on the pacifier? ( ) yes ( ) no Which one?_____
Since how old (months)? _____
Up to how old (months)? _____

Did he/she suck his/her finger? ( ) yes ( ) no
Since how old (months)? _____ Up to how old (months)? _____
How often? _____

Does he/she perform oral hygiene (brushes his/her teeth)? ( ) yes ( ) no
How many times a day? _____
Is there adult supervision? ( ) yes ( ) no
Since how old does he/she perform oral hygiene (brushes his/her teeth) (months)? _____
Does he/she use dental floss? ( ) yes ( ) no
Since how old (months)?_____
Do you have difficulty to perform the brushing? ( ) yes ( ) no

Does he/she have the habit to be constantly with the mouth open?
During the day: ( ) yes ( ) no
During the night: ( ) yes ( ) no

Does he/she have the habit to put another object into the mouth? ( ) yes ( ) no What?_____