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IMPACTO DAS CONDIÇÕES BUCAIS NA QUALIDADE DE VIDA DE ADOLESCENTES BRASILEIROS: UM ESTUDO POPULACIONAL

Tese apresentada ao Programa do Colegiado de Pós-Graduação da Faculdade de Odontologia da Universidade Federal de Minas Gerais, como requisito parcial para obtenção do grau de Doutor em Odontologia - área de concentração em Odontopediatria

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DEDICATÓRIA

Dedico este trabalho a todos os adolescentes e suas famílias.

Dedico também àquelas pessoas que sempre estão ao meu lado: minha família (papai, mamãe, Luiz, Angélica, Ana Paula, Anísio, Pedro e meu amado marido Marcus). Amo vocês!

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IMPACTO DAS CONDIÇÕES BUCAIS NA QUALIDADE DE VIDA DE ADOLESCENTES BRASILEIROS: UM ESTUDO POPULACIONAL

RESUMO

A saúde bucal relacionada à qualidade de vida em crianças e adolescentes tem sido um tema frequentemente relatado na literatura nacional e internacional. Isso se deve ao fato de que as crianças e adolescentes são capazes de fornecer informações precisas sobre sua saúde bucal. Vários instrumentos têm sido propostos para se analisar a percepção de saúde bucal dessa população. Dentre eles, o mais utilizado tem sido o *Oral Health Related Quality of Life* (OHRQoL), um conjunto de instrumentos desenvolvidos no Canadá que avaliam a percepção da criança/adolescente sobre sua saúde bucal (*Child Perceptions Questionnaire* – CPQ), o relato dos pais/responsáveis sobre a saúde bucal de seus filhos (*Parental-Caregiver Perceptions Questionnaire* – P-CPQ) e o impacto que a saúde bucal dos menores acarreta para a família (*Family Impact Scale* – FIS). O CPQ avaliou a condição de saúde bucal de crianças e adolescentes em várias partes do mundo como Nova Zelândia, Austrália, Dinamarca, Arábia Saudita, China, Reino Unido, etc. Porém, o uso desse instrumento em uma amostra selecionada randomicamente e representativa da população foi realizado em poucos locais. No presente estudo transversal, realizado com amostra representativa de adolescentes de 11-14 anos de uma grande cidade brasileira localizada na região sudeste do Brasil com 1612 adolescentes, utilizando-se o instrumento CPQ $_{11\text{-}14}$ ISF: 16, pôde-se observar que algumas condições bucais que os adolescentes apresentam podem trazer repercussões biopsicossociais na vida diária dos mesmos. Dentre essas condições, destacam-se as oclusopatias e a presença de cárie dentária, dois dos problemas mais prevalentes da saúde pública odontológica brasileira. A oclusopatia tem um impacto negativo na qualidade de vida dos adolescentes principalmente devido à estética. A presença de cárie dentária traz inconvenientes como dor, dificuldade de mastigação e fonação. O impacto dessas alterações é tão evidente que, além da manifestação da sintomatologia, muitas vezes os adolescentes deixam de se relacionar socialmente ou tornam-se até introvertidos em decorrência dessas alterações.

O relato das mães sobre a condição de saúde bucal de seus filhos pode ser diferente da percepção que os menores têm de sua própria condição. Geralmente, as mães são as responsáveis pelo cuidado dos filhos. Utilizando-se 960 pares de mães-adolescentes, aplicaram-se conjuntamente os instrumentos P-CPQ e o CPQ $_{11\text{-}14}$ ISF: 16 em um estudo transversal, onde pôde-se observar que as mães tendem a relatar um impacto menor da condição bucal do adolescente na vida diária do mesmo, enquanto que o adolescente percebe de forma mais grave a repercussão que sua condição traz ao dia-a-dia. Isso poder ser explicado pelo fato de que, atualmente, as mães tendem a passar pouco tempo com os adolescentes devido aos vários compromissos socais e de trabalho. As crianças e os adolescentes brasileiros passam um tempo maior nas escolas e muitas das repercussões apresentadas pelos mesmos ocorrem no ambiente escolar, longe do olhar materno.

Descritores: Odontologia; Adolescente; Qualidade de vida; Saúde bucal

IMPACT OF ORAL CONDITIONS ON QUALITY OF LIFE OF BRAZILIAN ADOLESCENTS: A POPULATION STUDY

ABSTRACT

The oral health related life of quality of children's and adolescents' has been a frequent issue in national and international literature. Especially due to the fact children and adolescents are able to give precise information about their oral health. Several instruments have been proposed to analyze their oral health perception. Amongst them, the most used has been the *Oral Health Related Quality of Life* (OHRQoL), a set of instruments developed in Canada which evaluates the children's and adolescents' perception of their oral health (*Child Perceptions Questionnaire* - CPQ), the parents' and legally responsible persons' report on their children's oral health (*Parental-Caregiver Perceptions Questionnaire* - P-CPQ) as well as the children's and adolescents' oral health impact in the family (*Family Impact Scale* - FIS). The CPQ evaluated the children's and adolescents' oral health in many world regions such as New Zealand, Australia, Denmark, Saudi Arabia, China, the United Kingdom, etc. However, the use of this instrument in a random and representative sample was fulfilled in a few places. In this current cross-sectional study, done with representative sample of adolescents (1.612) between 11-14 years old of a big Brazilian city in southwest region, using the CPQ $_{11\text{-}14}$ ISF: 16 instrument, it was detected that some adolescents' oral conditions can show biopsycosocial impacts in their everyday lives. Among these conditions, we can highlight the malocclusion and dental caries, two of the main problems of the Brazil's dentistry public health. The malocclusion has a negative impact in the adolescents' life quality mainly due to aesthetics. The presence of dental caries brings inconvenient aspects such as pain, difficulty of eating and phonation. These alterations impacts are so clear that, besides the symptoms manifestation, the adolescents stop making social relationships or become more introverted very often. The mothers' report on their children's oral health condition can be different from the perception these children have about their oral health condition themselves. Generally, the mothers are responsible for taking care of their children. In the 960 pairs (mothers-adolescents), using the

instruments P-CPQ and CPQ 11-14 ISF:16 in a cross-sectional study, it was verified that mothers tend to minimize the oral health condition in the adolescent's everyday life, while the adolescents realize in a more seriously way the impact of your oral health condition results in their everyday life. This could be explained by the fact that, at present, mothers have the tendency to spend a little time with their children due to several social appointments and her job. The Brazilian children and adolescents spend a long time at school and many of the presented impacts happen at school environment, far from the mothers' eyes.

Key-words: Dentistry; Adolescent; Quality of life; Oral Health

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LISTA DE ABREVIATURAS

CPQ $_{11-14}$: Child Perceptions Questionnaire

CPQ $_{11-14}$ ISF:16 - short Brazilian version of the Child Perceptions Questionnaire

DAI - Dental Aesthetic Index

DMFT - Decayed, Missing, and Filled Teeth Index

EWB: emotional well-being

FL: functional limitations

IC – Confidential interval

ICC - Intraclass Correlation Coefficient

OHRQoL - Oral health–related quality of life

OS: oral symptoms

P-CPQ - Parental-Caregiver Perceptions Questionnaire

PR – Prevalence ratio

SVI - Social Vulnerability Index

SWB: social well-being

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APRESENTAÇÃO

A incorporação da saúde bucal relacionada à qualidade de vida mudou o perfil da pesquisa na Odontologia, principalmente na área de Odontopediatria. Hoje, os estudos deixaram de focar apenas os aspectos clínicos das desordens bucais. A avaliação epidemiológica / populacional fornece informações essenciais sobre a repercussão das condições bucais na vida diária de crianças e adolescentes. Em geral, a cárie dentária, as lesões traumáticas e a oclusopatia, as três mais prevalentes alterações bucais da Odontologia brasileira, estão associadas à dor, desconforto e insatisfação com a aparência.

O CPQ 11-14 é um instrumento capaz de avaliar, quantitativamente, o quanto as desordens bucais afetam a vida diária de crianças / adolescentes de 11 a 14 anos de idade. Ele foi desenvolvido no Canadá por Jokovic et al. (2002), na sua forma longa. A versão curta foi desenvolvida e validada pelo mesmo grupo de pesquisadores em 2004 .

Estudos utilizando o CPQ, realizados em diversas partes do mundo, demonstraram que a oclusopatia é a alteração bucal que acarreta maior impacto na vida emocional e social dos adolescentes. Além disso, estudos indicam que o impacto da saúde bucal pode ser diferente dependendo da percepção avaliada, seja dos adolescentes ou de seus pais / responsáveis.

Dessa forma, o presente estudo buscou avaliar, em uma amostra representativa de adolescentes e pais/ responsáveis de uma grande cidade brasileira, como os menores percebem sua saúde bucal e qual o impacto que ela traz para o cotidiano dos mesmos. Além disso, avaliou se a percepção dos adolescentes e de seus pais / responsáveis sobre o impacto que as alterações bucais acarretam é semelhante ou diferente.

ARTIGO 1

Impact of oral conditions on the oral health-related quality of life among Brazilian adolescents: a population-based study

Running head: Impact of oral conditions on quality of life

Key-words: questionnaires, quality of life, oral health-related quality of life, adolescents.

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ABSTRACT

Objective: Oral health–related quality of life (OHRQoL) is a current topic in dental literature. The present study assessed the association between OHRQoL and sociodemographic and clinical conditions in a population-based sample of Brazilian adolescents.

Methods: This study followed a cross-sectional design with 1,612 adolescents, from 11 to 14 years of age, enrolled in public and private schools in the city of Belo Horizonte, Brazil. Participants completed the short Brazilian version of the Child Perceptions Questionnaire (CPQ11-14 ISF:16). The dental examination was carried out independently by three dentists after the calibration process. The criteria used included the World Health Organization criteria for untreated dental caries, the Andreasen classification for traumatic dental injury, and the Dental Aesthetic Index for malocclusion. Sociodemographic variables were also recorded. Associations between the CPQ11-14 ISF:16 scores and socioeconomic factors and oral clinic variables were evaluated by the Poisson regression model with robust variance.

Results: Higher negative impact on OHRQoL was observed for adolescents with untreated dental caries (PR 0.92; 95% IC 0.86-0.99), for adolescents with severe/handicapping malocclusion (PR 1.14; 95% IC 1.07-1.21), and for girls (PR 1.12; 95% IC 1.05-1.19). Traumatic dental injury showed no clear association with CPQ11-14 ISF:16 scores (p=0.85). Adolescents enrolled in public schools presented the worst quality of life due to oral conditions (PR 1.09; 95% IC 1.01-1.18).

Conclusions: Adolescents with untreated dental caries, with severe/handicapping malocclusion, and who were enrolled in public schools produced a negative impact on the OHRQoL. Social policies, especially

educational and oral health programs targeting adolescents, should be the pillar for reducing social and oral health inequalities.

INTRODUCTION

The importance of the incorporation of the oral health-related quality of life (OHRQoL) changed the profile of research in pediatric dentistry. Today, the epidemiologic evaluation of OHRQoL provides essential information regarding subjective oral health indicators (1). However, these indicators may have an impact on the daily activities of children and adolescents. By and large, untreated dental caries and traumatic dental injury are associated with pain and discomfort. Malocclusions, in addition to the similar symptoms of untreated dental caries and traumatic dental injury, may cause a form of dissatisfaction with one's appearance (2).

The association between oral clinical disorders, such as dental caries, malocclusion, gingivitis, fluorosis, and dental trauma, and the Child Perception Questionnaire (CPQ 11-14) has been tested in various parts of the world, including Canada, the United Kingdom, Australia, and New Zealand. However, such works only made associations with one or two of the clinical conditions (1, 3-12). Most of these studies used convenience samples, only three of which were carried out using randomized samples that were population representative (1, 5, and 10).

In Brazil, the CPQ 11-14 was also used in some studies with convenience samples (13-15). Few works have used representative samples (16, 17). Of these, only the Brazilian study carried out in the city of Santa Maria evaluated three clinical conditions: untreated dental caries, malocclusion, and traumatic dental injury, the most common oral problems in Brazilian adolescents (16).

The objective of this study was to determine the impact of the three major oral clinical conditions, namely malocclusion, untreated dental caries, and traumatic dental injury, on the OHRQoL of a representative population-based sample of Brazilian adolescents from 11 to 14 years of age.

MATERIAL AND METHODS

This randomized representative population-based cross-sectional study was carried out on 1,612 adolescents, from 11 to 14 years of age, from 311 public and 145 private elementary schools in Belo Horizonte, Brazil, from September 2008 to May 2009. The participants consisted of approximately 10% of a population of 170,289 adolescents enrolled on these schools. Belo Horizonte is the capital of the state of Minas Gerais, Brazil. It is the fifth largest Brazilian city with 2,375,444 inhabitants and is geographically divided into nine administrative districts, with considerable social, economic, and cultural disparities. The percentage distribution of the 170,289 school adolescents was calculated from information provided by the local Department of Education (18). The distribution of participants was determined by the population's proportion of the respective school systems (public and private). To ensure representatively, the sample was stratified into two-stages. In the first-stage, the schools were randomly selected from each administrative district of Belo Horizonte. In the second-stage, school classes were randomly chosen among the selected schools.

The sample size of the study was estimated using the following parameters: 16.1% of prevalence of traumatic dental injury (19), 2% standard error, 95% confidence interval, 20% of non-response, as well as a design effect of 1.2. The 1,853 adolescents were selected according to these parameters. The prevalence of traumatic dental injury was chosen, as it proved to represent the lowest prevalence of all oral conditions – malocclusion = 29% (20) and untreated dental caries = 61% (21).

Approval for this study was received from the Human Research Ethics Committee of the Federal University of Minas Gerais. The participating schools also gave their consent for the study to be carried out on their school grounds.

An invitation letter was sent to the parents of the adolescents who had been selected, explaining the aim, characteristics, importance, and study methods, and asking for permission for their adolescent's participation. Only those adolescents who returned the informed consent form signed by their parents or guardians were allowed to participate in this study. Adolescents who were not present on the day of the examination or who were not within the pre-set age range were excluded from the sample.

Clinical examination and administration of the questionnaire

The research team was made up of three dentists (DG, CBB, and CST) who had previously participated in a training and calibration exercise for each clinical condition. The diagnosis for untreated dental caries was performed using the Decayed, Missing, and Filled Teeth Index (DMFT) (22). The Andreasen classification (23) was used to recode the traumatic dental injury observed in the maxillary and mandibular incisors: non-complicated fractures (enamel and enamel-dentin fractures), complicated fractures (enamel-dentin-pulp fractures), teeth dislocations (lateral luxation, intrusion, and extrusion), avulsion, teeth discoloration, and restoration of the fractured teeth. Malocclusion was diagnosed using the Dental Aesthetic Index (DAI), which assesses the relative social acceptability of dental appearance by collecting and weighing data according to 10 intra-oral measurements (24). The methods' test, the dental examination, and the administration of the questionnaire, as well as the preparation of the examiners, were carried out in a pilot study with 76 adolescents, none of whom participated in the representative study. These adolescents were randomly selected and included in the calibration process. Forty-four adolescents were examined by each of three dentists separately to calculate the interexaminer agreement, while ten participants were re-examined

at a one-month interval to calculate the intraexaminer agreement. Kappa values ranged from 0.70 to 1.00 for intraexaminer agreement and from 0.68 to 1.00 for interexaminer agreement. The results of the pilot study indicated there was no need to change the previously proposed methods. Clinical dental examinations were carried out at school during daytime hours. Head lamp (Petzl Zoom head lamp, Petzl America®, Clearfield, UT, USA), disposable mouth mirror (PRISMA®, São Paulo, SP, Brazil), and periodontal probe (WHO-621, Trinity®, Campo Mourão, PA, Brazil) were used for dental examination. In a private room selected by the school, the examiners were seated in front of the child, who remained standing. The examiners used appropriate individual equipment protection, with all necessary instruments and materials packaged and sterilized in sufficient quantities for each workday.

Before the examination, each child answered the Brazilian version of the CPQ 11-14 – ISF:16 in the same private, examination room, with no outside influence on their answers. The CPQ11-14 ISF:16 is part of the Child Oral Health Quality of Life (COHQoL), a set of questionnaires that aim to measure the impact of oral health abnormalities on adolescents' quality of life. This questionnaire consists of 16 items, distributed in 4 subscales: oral symptoms, functional limitations, emotional well-being, and social well-being. Each item asked about the frequency of events, as applied to the teeth, lips, and jaws, over the past 3 months. These alternatives are scaled from 0 to 4, with the higher values corresponding to a poorer status and the lower values corresponding to a better status. This instrument was adapted cross-culturally and validated for use amongst Brazilian adolescents, where it presented satisfactory psychometric properties (14). The scores of the total scale and the subscales were computed by summing up all item scores.

Socioeconomic classification, type of school, age, and gender were used as independent variables. The untreated dental caries were classified either as

“caries free” (DMFT = 0) or as “with one or more teeth affected” (DMFT ≥ 1). For the traumatic dental injury, the condition was compared among adolescents with and without a history of traumatic dental injury. For malocclusion, the condition was classified as “without malocclusion” (DAI = 13 to 22) and “with malocclusion” (DAI = 23 to 68). The Social Vulnerability Index (SVI) was applied for socioeconomic classification. SVI was developed by the local government of the city of Belo Horizonte to measure social exclusion in the city (25). According to the theoretical framework that supported the development of SVI, social vulnerability is determined based on a population’s neighborhood infrastructure, access to work, income, sanitation services, healthcare services, education, legal assistance, and public transportation. As such, the SVI measures social access and determines to what extent the population of each region of the city is vulnerable to social exclusion. These scores were calculated for nine districts in a previous study carried out by the city of Belo Horizonte. In this study, five different classes were generated, including Class I, which consists of families of the highest degree of social vulnerability (worst conditions of housing, schooling, income, jobs, legal assistance, health) and Class V, which consists of families with the lowest degree of social vulnerability (best conditions). For the statistical analysis, the SVI was grouped into two categories: Classes I and II were grouped in the category of “high social vulnerability”, whereas Classes III, IV, and V were grouped in the category of “low social vulnerability”.

Statistical analysis

Statistical analysis was performed by employing the software Statistical Package for the Social Sciences (SPSS for Windows, version 15.0, SPSS Inc., Chicago, IL, USA). The overall and domain-specific CPQ 11-14 scores represented the outcome variables. The independent variables were socio-

demographic (age, gender, SVI, type of school) and clinical status (untreated dental caries, malocclusion, traumatic dental injury). Descriptive statistics and unadjusted analysis assessing the association between the outcome and independent variables were also performed. The Multivariate Poisson regression model with robust variance was used to assess the clinical variables for the overall and domain-specific CPQ 11-14 scores. Independent variables were introduced into the model based on their statistical significance ($p<0.20$) and/or clinical epidemiological importance. The significance level was set at 5%.

RESULTS

Participating in this study were 1,612 adolescents, from 11 to 14 years of age, who were properly enrolled in public and privates schools in Belo Horizonte, Brazil. The response index of the CPQ 11-14 ISF:16 was of 86.2%. The main reasons for refusals included the lack of parental agreement for the child's participation and the child's absence from school during dental examination visits. The participants were divided according to their clinical condition. The demographic, clinical, and social characteristics of the participants are presented in Table 1.

Scores of the total scale of CPQ11-14 ISF:16 ranged from 0, for minimum effects, to 64, for ceiling effects. The scores of the total scale and subscales, minimum and maximum scores, number of items, mean, and standard deviation are presented in Table 2.

The overall score of the CPQ 11-14 ISF:16 made it possible to discriminate the impact of clinical conditions among the studied groups. In the bivariate analysis, only dental caries and malocclusion were statistically associated with ISF:16. The history of dental trauma, when submitted to the chi-squared test ($p>0.05$), proved not to be associated with ISF:16. Adolescents with malocclusion

reported a greater impact of this condition on their daily lives, followed by the history of dental trauma and the presence of untreated dental caries (Table 3).

Table 4 summarizes the unadjusted assessment of associations of overall and subscales of CPQ 11-14 ISF:16 and independent variables. Gender, type of school, untreated dental caries, and malocclusion represented the main covariates of the overall CPQ11-14 score.

The results of the adjusted assessment of associations of overall and subscales of CPQ 11-14 ISF:16 and independent variables are displayed in Table 5. Higher impacts on the quality of life were observed for the same covariates in an unadjusted model.

DISCUSSION

The prevalence of untreated dental caries, traumatic dental injury, and severe/handicapping malocclusion was of 72.0%, 17.1%, and 48.0%, respectively. The present study demonstrated that the dental clinical and socio-demographic conditions of adolescents from 11 to 14 years of age do in fact produce a significant impact on their OHRQoL.

The impact of oral conditions on one's quality of life differed among the analyzed clinical conditions. The impact of malocclusion on the OHRQoL proved to be the most prevalent, followed by untreated dental caries. Dental trauma presented no repercussion on the quality of life of the adolescents from this study.

A high prevalence of untreated dental caries presented a negative impact on the daily lives of the adolescents, which is similar to findings from population studies developed in Australia. This can be explained by the fact that dental caries can cause pain and discomfort, may be related to oral symptoms and functional limitations, and may bring about financial problems for the

adolescent's family (5, 10). In the present study, higher scores could be observed for the OHRQoL and its domains in adolescents with treated dental caries than in those who presented untreated dental caries. This can be explained by the fact that the instrument refers to events related to the oral conditions which occurred within the past three months. During this time, some adolescents may have undergone dental treatment to remove dental caries, yet they still reported the discomfort caused by the same condition involved. It is true that the restoration of a carried tooth can eliminate the symptomatology and return the form and function to the dental element, in turn minimizing the possible impact caused by the development of this disease (5, 10, 26).

The history of dental trauma presented no impact on the quality of life of the adolescents from the present study. The probable explanation for this is the fact that only 2.9% of the history of dental trauma found in the sample were related to the forms which could bring about greater discomfort when performing dental activities, such as a complicated fracture of a crown (involving the pulp), avulsion, and lateral luxation. These types of dental trauma can promote pulp pain and damage to the periodontal ligament, which can in turn cause symptomatology and functional limitations, such as chewing (3). The greatest prevalence of changes due to trauma, according to the sample, was due to the fracturing of the enamel (63.6%), the fracturing of the enamel and the dentin (15.3%), and the dental restoration after the fracture (23.3%). Although a considerable number of participants reported dental trauma involving only enamel, or involving both the enamel and the dentin, the number of restorations was relatively low. Such an explanation refers to the fact that the importance/treatment of these types of dental trauma are not highly valued by the country, since they do not cause pain or, if they do, the pain is only minimal (17). In addition, such changes can bring about less discomfort and aesthetic insatisfaction of the adolescents (27). It also is important to note that only

Brazilian studies have drawn associations between the history of dental trauma and OHRQoL (16, 17).

Malocclusion presented the oral changes that were most frequently associated with the OHRQoL of adolescents in a number of studies carried out worldwide. Factors related to the domains of 'social and emotional well-being', such as shyness, becoming upset, and avoiding smiling or laughing, outweighed the factors related to the symptomatological/functional domains of OHRQoL (1, 8-10, 12). This can be explained by the fact that malocclusion during adolescence causes an aesthetic impact on the daily lives of adolescents, in turn affecting emotional and social relations. During adolescence, the physical appearance takes on a significant importance, as the construction of a personal identity in this period necessarily includes one's relationship with one's own body. With puberty established, adolescents seek to improve their image through physical culture and clothing (28). It is important to note that the present study used a sample represented by 1,612 adolescents from a large Brazilian city. Only studies from Australia and New Zealand have worked with population studies but in smaller cities than that of the present study (430 and 468 adolescents, respectively) (1, 10). The other aforementioned works used convenience studies (8-9, 12). The only Brazilian study that used a representative sample was carried out in a small city in the southern regions of Brazil (792 adolescents). However, such work assessed only the maxillary overjet to classify malocclusion (16) and not the ten parameters from the DAI, as was the case in the present study.

The socio-demographic variables had repercussions on the adolescents' quality of life. The gender and the type of school attended by the participants presented a difference in the repercussion that the untreated dental caries and malocclusion caused in the daily lives of the adolescents. Girls from public schools presented a greater impact on their daily lives due to the analyzed

clinical condition, especially due to severe/handicapping malocclusion. The prevalence of the impact of oral conditions due to malocclusion reported by the girls can be explained by the fact that, in this stage of life, the adolescent worries concerning the changes that occur during puberty, especially those related to one's aesthetic appearance, increase. An occlusion that compromises one's aesthetic appearance can lead to social isolation, and the adolescents may become targets of nicknames or may be made fun of by their classmates (16, 29). Studies that assess the repercussions of oral changes on adolescents' quality of life regarding gender are scarce. Such studies have used the gender of the participants only as a sample characterization (1, 3, 5, 7-12).

Concerning education, it could be observed that the majority of Brazilian adolescents (80.3%) are enrolled in public schools. However, it is well-known that these schools present hindrances in educational quality. This can be explained by the social inequalities and poor income distribution in Brazil. These inequalities compromise not only one's education, but also one's health, diet, and citizenship, reflecting on the scarcity of economic resources needed to maintain a dignified life (30). In this manner, the first hindrance to be considered in public middle schools in Brazil concerns the need to create a new reference model for "school quality", in which education for all, guaranteed by the Brazilian Federal Constitution of 1988, can genuinely mean "quality education for all" (31). In studies carried out in other countries, this reference is not made. As the education level in developed countries is of a higher quality, the education-poorer OHRQoL relation of the adolescents is based on the average education level achieved in Brazil, generally only reaching an elementary school level (3). As regards health, national data indicate that 13% of the Brazilian adolescents from 15 to 19 years of age have never been to the dentist; 11% reported a poor/terrible self-perception of their own oral health; and 19% affirmed that oral health, in some way, affects their daily routine (21). The education and access

to health services provided by the Brazilian government is still far from being effective and problem-solving, and its improvement depends on the adoption of public policies that benefit the population as a whole. The assessment of the health services available to children/adolescents have not been the focus of other studies carried out in developed countries (1, 3, 5, 7-12).

The limitations of this study must be made explicit. The clinical evaluations of dental caries, dental trauma, and malocclusion were performed only by using visual exams. The prevalence levels may well be underestimated, since complementary means of diagnosis, such as radiographs, were not used. Another limitation to be considered is the use of SVI, which is an indicator of the measure of social vulnerability developed for the population of Belo Horizonte. However, in the present study, no association was drawn between the social class and the impact that oral conditions may cause on the adolescents' quality of life. One possible explanation is that the socioeconomic indicators, such as the education level of the country and the family income, should complement the SVI indicators. Prior studies indicate that the low education level of the country can lead to a reduction in the family income. As such, one's adoption of healthy habits and one's self-perception concerning oral health can be compromised, in turn causing severe impacts that oral disorders can cause to one's quality of life (16, 32). In addition, the application of the OHRQoL presents limitations, as it is a generic oral health evaluation instrument concerning one's quality of life. Generic instruments can be adapted to assess population samples that do not present oral conditions capable of being detected before the manifestation of symptomatology (12). The present study aimed to assess the impact of specific and well-established oral conditions, such as dental caries, malocclusion, and dental trauma. In this manner, the results found for these specific conditions may well be underestimated.

In summary, the epidemiological data collected in Brazil, through a representative sample, which assess the impact of oral conditions, such as dental caries, malocclusion, and dental trauma on the daily lives of adolescents from 11 to 14 years of age are scarce (16). The OHRQoL was capable of measuring the impact of untreated dental caries and malocclusion on the daily lives of 1,612 adolescents, with such disorders considered to be public health problems in Brazil. The present study aimed to illustrate the importance of the OHRQoL evaluation as regards three prevalent oral conditions in Brazil. Studies of this methodological nature, both in Brazil and worldwide, are rare, given that the results found by associating oral health and quality of life were generally conducted with the evaluation of only one or two clinical variables (1, 8-10). The importance of this study lies in raising awareness within the Brazilian government, in the hope that it might implement public oral health programs with effective actions in an attempt to improve the oral health conditions of Brazilian adolescents.

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Table 1: Clinical and socio-demographic characteristics of participating adolescents

Variables	*n*	%
Age		
11-12 years	856	53.1
13-14 years	756	46.9
Gender		
Boys	672	41.7
Girls	940	58.3
Social vulnerability index (SVI)		
High	681	42.2
Low	931	57.8
Type of school		
Public	1294	80.3
Private	318	19.7
Clinical oral conditions		
Untreated dental caries		
	451	28.0
With	1161	72.0
TDI		
Without	1337	82.9
With	275	17.1
Malocclusion		
None/minor	839	52.0
Severe/handicapping	773	48.0

Table 2: Descriptive distribution of overall and subscales of CPQ 11–14 ISF:16 scores.

	Number of items	Average CPQ 11-14 ISF:16 scores (± SD)	Possible range	Observed range
Total scale	16	12.99 (± 8.28)	0-64	0-47
Subscales				
Oral symptoms	4	4.08 (± 2.49)	0-16	0-14
Functional limitations	4	3.49 (± 2.66)	0-16	0-14
Emotional well-being	4	3.10 (± 3.05)	0-16	0-16
Social well-being	4	2.32 (± 2.56)	0-16	0-15

Table 3: Descriptive distribution of overall and subscales scores of CPQ 11-14 ISF:16 among clinical groups.

Clinical groups	Overall CPQ11-14 ISF:16		Oral symptoms		Functional limitations		Emotional well-being		Social well-being		p-value*
	Mean (SD)	Median	Mean (SD)	Median	Mean (SD)	Median	Mean (SD)	Median	Mean (SD)	Median	
Untreated dental caries											<0.001
Without	13.87 (8.55)	12.00	4.23 (2.51)	4.00	3.68 (2.87)	3.00	3.43 (3.17)	3.00	2.53 (2.67)	2.00	
With	12.65 (8.15)	11.00	4.02 (2.48)	4.00	3.41 (2.57)	3.00	2.98 (3.00)	2.00	2.24 (2.51)	2.00	
Trauma dental injury											<0.001
Without	12.97 (8.27)	11.00	4.09 (2.49)	4.00	3.49 (2.64)	3.00	3.11 (3.05)	2.00	2.28 (2.52)	2.00	
With	13.08 (8.35)	12.00	4.02 (2.49)	4.00	3.45 (2.77)	3.00	3.08 (3.08)	2.00	2.53 (2.72)	2.00	
Malocclusion											<0.001
None/minor	12.19 (7.95)	11.00	3.98 (2.46)	4.00	3.42 (2.53)	3.00	2.72 (2.89)	2.00	2.06 (2.31)	1.00	
Severe/handicapping	13.86 (8.55)	12.00	4.20 (2.53)	4.00	3.55 (2.80)	3.00	3.52 (3.18)	3.00	2.60 (2.77)	2.00	

*Mann-Whitney test

Table 4: Unadjusted assessment of the overall and domain-specific CPQ 11-14 scores for the social and clinical variables (Poisson regression analysis).

Variables	CPQ_{11-14}	OS	FL	EWB	SWB
	PR (95%IC)	PR (95%IC)	PR (95%IC)	PR (95%IC)	PR (95%IC)
Sociodemographic variables					
Age					
11-12 years	1.00	1.00	1.00	1.00	1.00
13-14 years	0.96 (0.90-1.03)	0.97(0.91-1.02)	0.95 (0.89-1.03)	1.04 (0.94-1.14)	0.88(0.79-0.98)
Gender					
Boys	1.00	1.00	1.00	1.00	1.00
Girls	1.11 (1.05-1.18)	1.08 (1.02-1.15)	1.17 (1.08-1.26)	1.15 (1.04-1.27)	1.04 (0.93-1.16)
SVI					
Low	1.00	1.00	1.00	1.00	1.00
High	1.05 (0.99-1.12)	0.95 (0.89-1.01)	1.04 (0.96-1.12)	1.11 (1.01-1.22)	1.19 (1.07-1.33)
Type of school					
Private	1.00	1.00	1.00	1.00	1.00
Public	1.13 (1.05-1.22)	1.00 (0.93-1.08)	1.12 (1.02-1.23)	1.18 (1.04-1.33)	1.40 (1.22-1.61)
Clinical oral conditions					
Traumatic dental injury					
Without	1.00	1.00	1.00	1.00	1.00
With	1.00 (0.93-1.09)	0.98 (0.90-1.06)	0.99 (0.89-1.09)	0.99 (0.87-1.13)	1.11 (0.96-1.28)

Untreated dental caries					
Without	1.00	1.00	1.00	1.00	1.00
With	0.91 (0.85-0.98)	0.95 (0.89-1.02)	0.92 (0.85-1.00)	0.87 (0.78-0.96)	0.88 (0.79-0.99)
Malocclusion					
None/Minor	1.00	1.00	1.00	1.00	1.00
Severe/handicapping	1.14 (1.07-1.21)	1.05 (0.99-1.12)	1.04 (0.96-1.12)	1.29 (1.17-1.42)	1.26 (1.13-1.40)

PR: Prevalence ratio, $CPQ_{11\text{-}14}$: Child Perceptions Questionnaire, *OS*: oral symptoms, *FL*: functional limitations, *EWB*: emotional well-being, *SWB*: social well-being.

Table 5: Adjusted assessment of the overall and domain-specific CPQ 11-14 scores for social and clinical variables (Multivariate Poisson regression models).

Variables	CPQ_{11-14}	OS	FL	EWB	SWB
	PR (95%IC)	PR (95%IC)	PR (95%IC)	PR (95%IC)	PR (95%IC)
Sociodemographic variables					
Age	**	**	**	**	
11-12 years					1.00
13-14 years					0.84 (0.76-0.94)
Gender					**
Boys	1.00	1.00	1.00	1.00	
Girls	1.12 (1.05-1.19)	1.08 (1.02-1.15)	1.16 (1.08-1.26)	1.16 (1.05-1.28)	
SVI	**	**	**	**	
Low					1.00
High					1.17 (1.05-1.30)
Type of school		**	**	**	
Private	1.00				1.00
Public	1.09 (1.01-1.18)				1.31 (1.13-1.52)
Clinical oral conditions					
Traumatic dental injury	**	**	**	**	**
Without					

With					
Untreated dental caries		**	**		**
Without	1.00			1.00	
With	0.92 (0.86-0.99)			0.88 (0.80-0.98)	
Malocclusion			**		
None/Minor	1.00	1.00		1.00	1.00
Severe/handicapping	1.14 (1.07-1.21)	1.06 (1.00-1.13)		1.29 (1.17-1.42)	1.23 (1.11-1.37)

PR: Prevalence ratio, *CPQ* $_{11\text{-}14}$: Child Perceptions Questionnaire, *OS*: oral symptoms, *FL*: functional limitations, *EWB*: emotional well-being, *SWB*: social well-being.

** Variables not included in the final multiple model after the adjustment.

ARTIGO 2

Agreement between mothers' and adolescents' Oral Health-Related Quality of Life reports in a randomized population-based sample

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Abstract

Purpose The aim of the present study was to determine the degree of agreement between the reports of mothers and children regarding the impact of oral health on the quality of life of the children.

Methods The sample was made up of 960 pairs of mothers and adolescents aged 11 to 14 years. The Brazilian versions of the Parental-Caregiver Perceptions Questionnaire (P-CPQ) and short form of the Child Perceptions Questionnaire (CPQ_{11-14}) were administered to the mothers and children, respectively. Fourteen items common to both questionnaires were used for comparison purposes. Agreement on the total scale and subscales was determined through a comparison of mean values; the means of the directional and absolute differences were also determined. Agreement on each item on the group level and in the individual pairs was analyzed using the Intraclass Correlation Coefficient (ICC).

Results The difference between means and the means of the directional differences were significant for the total score as well as the functional limitation and social wellbeing subscales ($p<0.001$). The ICC for the total P-CPQ and CPQ_{11-14} scores was 0.43, indicating moderate agreement between mothers and children. The ICC indicated weak agreement on the subscales, ranging from 0.36 to 0.40.

Conclusion The results demonstrate the views of both should be considered in order to obtain an overall view regarding the impact of oral health on the quality of life of children.

Keywords: agreement; mothers; children; oral health; quality of life; questionnaire.

Introduction

From a child's perspective, the impact of oral health on his/her quality of life may be different from the views of his/her parents/guardians. However, parents may provide complementary information, as they are closely involved with the health of their children, including decision making (Jokovic et al. 2003a; Jokovic et al. 2004). Furthermore, as much as older children may be capable of expressing the influence of oral aspects on their life, they may also interpret questions in the wrong way or not remember the oral problems that had an influence on their quality of life.

Along with the complementation of information on health from the reports of parents/guardians, the choice of the proxy measure should be considered. With the cultural and social changes that have occurred, mothers currently spend less time with their children. However, they continue to be involved in caring for their children and respond more reliably to questions regarding their health (Landgraf and Abetz 1997). As such, mothers account for the highest percentage of proxy measures employed in studies (Loonen et al. 2002; Jokovic et al. 2003a; Jokovic et al. 2003b; Jokovic et al. 2004; Wilson-Genderson et al. 2007; Benson et al. 2010).

In a systematic review on parent-child agreement in rating children's oral health-related quality of life (OHRQoL) (Barbosa and Gavião 2008), only four studies were found assessing child-parent agreement regarding adolescents OHRQoL (Jokovic et al. 2003b; Jokovic et al. 2004; Johal et al. 2007; Benson te al. 2010). These studies were carried out with convenience samples in developed countries, such as Canada and the United Kingdom. However, there is a lack of studies performed with randomized population-based samples to enable sufficient representativity for the extrapolation of the findings. Furthermore, studies of this type have not yet been performed in developing countries, such as Brazil. The aim of the present study was to determine the agreement between mothers' and adolescents's reports regarding the impact of

oral conditions on the child's OHRQoL while minimizing the limitations found in previous studies.

Methods

Participants

The participants were selected from a population of 170,289 adolescents in the same age group enrolled at 311 public and 145 private elementary schools in the city of city of Belo Horizonte (Prefeitura de Belo Horizonte 2009). Belo Horizonte is the capital of the state of Minas Gerais (Brazil). It has approximately two million in habitants and is geographically divided into nine administrative districts, with considerable social, economic and cultural disparities.

The sample size was calculated to give a level of precision of 4%. A 95% CI and an estimated prevalence of 50% were used for the calculation. As two-step sampling was employed, a correction factor for the design effect for the cluster sampling of 1.4 was adopted to increase the accuracy (Kirkwood and Stern 2003). The minimal sample size to satisfy the parameters was estimated at 837 children. The sample was increased by 20% to compensate for possible losses, thereby totaling 1003 children. To ensure representativity, the sample was stratified based on age group, school system and administrative districts. The local Department of Education provided data on the number of students per age group, school system and administrative district. The distribution of participants was determined based on the proportion of the population for each age group, school system and administrative district. The first-stage consisted of randomly selected units within public and private elementary schools proportional to each administrative district of Belo Horizonte. In the second-stage, classes were randomly chosen among the selected schools.

The study received approval from the Human Research Ethics Committee of the Federal University of Minas Gerais. All participants, children

and mothers, signed terms of informed consent, agreeing to participate in the study.

Data Collection Instruments

The data were collected using the Brazilian version of the P-CPQ and short form of the CPQ_{11-14}, administered to the mothers and children, respectively (Goursand et al. 2009; Torres et al. 2009). These questionnaires make up part of the Child Oral Health Quality of Life Questionnaire and measure the impact of oral and orofacial conditions on the quality of life of children and their families (Jokovic et al. 2003a; Jokovic et al. 2002). The CPQ_{11-14} was self-administered by the children following a clinical oral exam performed at the respective schools. The P-CPQ was sent to the mothers to be filled out.

The P-CPQ and short version of the CPQ_{11-14} have 14 items in common, organized in four subscales: oral symptoms (OS), functional limitation (FL), emotional wellbeing (EWB) and social wellbeing (SWB). Each item addresses the frequency of events in the previous three months. A higher total score on the scale denotes a greater impact of oral status on the quality of life of children. A 5-point Likert scale is used, with the following options: “Never” = 0; “Once/twice” = 1; “Sometimes” = 2; “Often” = 3; and “Every day/almost every day” = 4. “I don’t know” responses were recorded as 0 (Jokovic et al. 2004).

Data Analysis

Fourteen items common to both questionnaires were used for comparison purposes. Descriptive analysis was performed for the comparison of scores (paired t-test) and agreement on the group level and in the individual pairs (Intraclass Correlation Coefficient - ICC). The level of significance was set at 0.05 (Streiner and Norman 2003). Comparisons between scores on the total scale and subscales were determined using mean values. Means of the directional differences and absolute differences were also computed. These

differences were calculated by subtracting the child's score from the mother's score.

The paired t-test was used to determine if the mean of the directional differences was significantly different from zero. A p-value less than 0.05 was considered evidence of a significant difference between the mother's and child's report. The ratio of the mean directional difference by the standard deviation of this difference was calculated to determine the magnitude of the differences between the reports of mothers and children. For the interpretation of the magnitude of the differences, Cohen's standards were employed (0.2 = small; 0.5 = medium; 0.8 = large) (Cohen 1988). The ICC was calculated for the total P-CPQ and CPQ_{11-14} score, subscale score and score on each question in order to compare the responses given by the pairs individually. The ICC was also determined according to the independent variables gender and age. The degree of agreement reflected by the ICC was categorized as follows: < 0.2 (poor); 0.21-0.40 (fair); 0.41-0.60 (moderate); 0.61-0.80 (substantial) and 0.81-1.0 (excellent to perfect) (Landis and Koch 1977). Statistical analysis was performed employing the Statistical Package for the Social Sciences (SPSS for Windows, version 15.0, SPSS Inc., Chicago, IL, USA).

Results

Among the 1003 questionnaires sent to the mother-child pairs, 43 were excluded due to incomplete information. Thus, 960 mother-child pairs returned the completed questionnaires (response rate = 95.7%). The characteristics of the sample are displayed in Table 1. There was homogeneous distribution between the ages under investigation, but there was a predominance of the female gender.

Comparison analyses

The children reported experiencing greater impact from oral health status on quality of life than their mothers. This difference was statistically significant

for the total scale ($p<0.001$) as well as the FL and SWB subscales ($p<0.001$) (Table 2). The mean directional difference for scores on the total scale score and subscales revealed that the children reported more negative impact than the mothers. The mean directional difference between the reports of children and mothers was statistically significant for the total scale as well as the FL and SWB subscales. The magnitude of these differences revealed a small magnitude in the difference between the reports of children and mothers for the total scale and all subscales, according to the Cohen standards (Table 3). The absolute differences in total scale scores among the mother-child pairs ranged from 0 to 35, with 76.3% achieving a score equal to or less than 10. The median score of the absolute differences was 5.0, representing 53.1% of the scores obtained from the sample. The mean absolute differences in subscales scores ranged from 1.78 to 2.66, with the highest score corresponding to the FL and the lowest corresponding to the SWB (Table 3).

The distribution of the directional differences is displayed in Table 4. The total scale score of the P-CPQ was lower than that of the CPQ_{11-14} among 55.1% of the mother-child pairs.

Correlation analyses

For the total P-CPQ and CPQ_{11-14} scores, the ICC was 0.43, indicating moderate agreement between mothers and adolescents. The ICC indicated weak agreement on the subscales (Table 5). Regarding gender and age, there was moderate, statistically significant agreement for the female gender and the ages of 11, 12 and 13 years (Table 6). For all items of the scale, the ICC was statistically significant with values in the range of 0.16 to 0.45, but only two reach the moderate category of strength: “Difficulty eating or drinking hot or cold foods” and “Avoided smiling or laughing when around other children” (Table 7).

Discussion

The CPQ_{11-14} has frequently been used to assess the impact of oral conditions on the quality of life of children. However, only four studies tested the agreement between mother and child reports regarding the impact of oral conditions on the child's quality of life using this instrument (Jokovic et al. 2003b; Jokovic et al. 2004; Johal et al. 2007; Benson et al. 2010). Moreover, these studies involved convenience sampling. To avoid such shortcomings, the aim of the present study was to make comparisons between the OHRQoL reports of mothers and children using a large, randomized population-based sample. The importance of agreement studies resides in the assessment as to whether the information mothers provide can serve as a reliable report of the repercussions of oral conditions on children or complement a child's report regarding the impact on quality of life. Moreover, in our culture decisions related to caring for the health of children are generally the responsibility of mothers. As much as adolescents in the age group studied are capable of answering questions related to their own oral health, they may not always give due importance to oral conditions. The short version of the CPQ_{11-14} was used to reduce the time and expense of the data collection. The choice of mothers as respondents was based on previous studies, which describe a greater percentage of the use of this proxy measure (Loonen et al. 2002; Jokovic et al. 2003a; Jokovic et al. 2003b; Jokovic et al. 2004; Wilson-Genderson et al. 2007; Benson et al. 2010).

There were statistically significant differences between the reports of the mothers and children on the FL and SWB subscales, for which the children reported a greater impact on OHRQoL than the mothers. However, in the determination of the degree of agreement considering the pairs individually, significant moderate agreement was found to the items "difficulty eating or drinking hot or cold foods" (FL subscale) and "avoided smiling or laughing when around other children" (SWB subscale). It should be stressed that these are apparently the most easily observed aspects among the items on the FL and SWB subscales. The sensation of heat or cold is readily externalized and the way an individual behaves in socially favorable and unfavorable settings is readily detectable. Parents are more capable of judging problems externalized

by the child (aggressiveness) and are less accurate at judging internalized problems (sadness, anxiety) (Achenbach et al. 1987).

It is reasonable to expect parents' knowledge regarding the children to be limited, especially with respect to activities and relationships outside the family setting as well as internal feelings (Jokovic et al. 2004). In the present study, the EWB was the subscale with the weakest agreement when considering the pairs individually.

Although the mean differences between the reports of mothers and children were statistically significant for the total score as well as the FL and SWB subscales, the magnitude of these differences was small. The mean directional difference exhibited a similar behavior for both the total scale and the subscales. The distribution of directional differences suggests that mothers tend to underreport the impact of oral conditions on the quality of life of their children.

The moderate degree of agreement between the mothers and children for the total score contrasts the substantial agreement reported by Jokovic et al. (2003b), who found moderate agreement on subjective subscales and substantial agreement on objective subscales, whereas agreement was only fair on all subscales in the present study. The mean total score on the scales in both studies revealed a similar behavior, in which the children reported greater impact from oral health on their quality of life than their mothers did. It is necessary to consider the particularities inherent to each study. The study cited involved a convenience sample and administered the long version of the questionnaires, whereas the present study used a population-based sample and the short version of the CPQ_{11-14}. It should be stressed that studies involving a convenience sample with a small number of individuals and the administration of the long version of an assessment instrument tend to result in a larger Cronbach´s alpha value, which is one of the indicators of the internal consistency of the instrument (Gherunpong et al. 2004). This may have contributed toward the greater level of agreement between the reports of mothers and children. On the other hand, the present study involved a representative samples made up of a larger number of individuals and employed the short form of the CPQ_{11-14}. In such cases, Cronbach's alpha

tends to be smaller, denoting a greater chance of disagreement. It is important to clarify that both studies had adequate Cronbach´s alpha values. Moreover, the socio-cultural differences between the countries in which these studies were carried out may have affected the findings. As a developing nation, a considerable portion of the Brazilian population is economically underprivileged, which has significant consequences to health and education and can also affect a proxy measure that assesses the OHRQoL of children through the perceptions of mothers.

When measuring OHRQoL, the behavior pattern of children and parents tends to be similar to that observed for health-related quality of life (Loonen et al. 2002; Levi and Drotar 1999; Barbosa et al. 2002). Children tend to assess their quality of life as more compromised by oral and orofacial conditions than their mothers do (Jokovic et al. 2003b), as seen in the present study.

The reliability and validity of the results of an assessment questionnaire are affected by the predominance of recent memory, an absence of a long-term outlook, language problems and reading skills (Vogels et al. 1998; Wallander et al. 2001). With age, one may expect greater agreement between parents and children, as greater verbal skills may improve a child’s ability to describe his/her experiences and emotions (Eiser and Morse 2001). In the analysis of the influence of demographic variables, there was poor agreement between mothers and 14-year-olds, suggesting that physical and emotional changes in the course of adolescence are laden with satisfactions and heartaches, making the young individual more introspective in an attempt to assimilate the new discoveries. This may have repercussions in his/her family relationships. Moreover, older children spend more time far from the supervision of their parents and therefore share their experiences less (Barbosa and Gavião 2008). With regard to gender, mother-child agreement was moderate with female children and poor with male children. Concerning age, the findings of the present study corroborate those in a Canadian study, which found lower degrees of agreement among older children. However, the Canadian study reports a lower agreement between mothers and female children than that found in the present study (Jokovic et al. 2003b).

Although children in the 11-to-14-year age group may be capable of reporting the effect of oral health on their quality of life, the additional reports of parents are important to obtaining a broader perspective and contribute toward decision making with regard to health. Valuable information may be lost if one report is selected over the other (Jokovic et al. 2003b). Parents' perceptions regarding their child's oral health facilitate the child's access to dental services, as parents may perceive treatment needs in their children before any form of care is considered.

Overall, the children reported a greater negative impact from oral status on their quality of life than their mothers did. The views of mothers and children should both be considered in order to obtain a comprehensive view of the impact of oral health on the quality of life of children and thus offer a broader basis for clinical decisions and guiding oral health policies.

Acknowledgments

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Tables

Table 1 Characteristics of children included in the analysis

	N (%)
Gender	
Male	373 (38.9)
Female	587 (61.1)
Age (years)	
11	276 (28.8)
12	262 (27.3)
13	220 (22.9)
14	202 (21.0)

Table 2 Mean total P-CPQ and CPQ_{11-14} and subscale scores

	Nº of items	Mother		Child	
		Mean ±SD	Minimum-Maximum	Mean ±SD	Minimum-Maximum
Total scale (0-56)	14	10.16 ±7.86*	0-42	11.32 ±7.15*	0-37
Subscales					
Oral symptoms (0-16)	4	4.06 ±2.63	0-14	4.13 ±2.48	0-14
Functional limitation (0-16)	4	2.88 ±2.98*	0-16	3.50 ±2.67*	0-14
Emotional wellbeing (0-12)	3	1.86 ±2.60	0-12	2.00 ±2.25	0-12
Social wellbeing (0-12)	3	1.36 ±2.24*	0-10	1.69 ±2.11*	0-11

* Statistically significant differences between mothers and children: $\alpha < 0.05$ (paired t-test)

Table 3 Mean directional an absolute differences between overall and subscale P-CPQ and CPQ_{11-14} scores

	Directional differences[a]			Absolute differences[d]
Scale	**Mean (SD)**	**p[b]**	**d[c]**	**Mean (SD)**
Total scale (0-56)	1.16 (9.02)	<0.001	0.13	6.84 (6.00)
Subscales				
Oral symptoms (0-16)	0.07 (3.17)	0.515	0.02	2.43 (2.04)
Functional limitation (0-16)	0.61 (3.51)	<0.001	0.17	2.66 (2.38)
Emotional wellbeing (0-12)	0.14 (3.03)	0.145	0.05	2.08 (2.20)
Social wellbeing (0-12)	0.33 (2.65)	<0.001	0.12	1.78 (2.00)

[a] Difference between child and mother scores accounting for the direction of differences.

[b] p-values obtained from paired t-test.

[c] Standardized difference = mean directional difference / standard deviation of directional differences.

[d] Difference between child and mother scores irrespective of the direction of differences.

Table 4 Distribution of directional differences between total and subscale P-CPQ and CPQ_{11-14} scores

Scale	Mother score > Child score **N** (%)	Mother score = Child score **N** (%)	Mother score < Child score **N** (%)
Total scale (0-56)	365 (38.0)	66 (6.9)	529 (55.1)
Subscales			
Oral symptoms (0-16)	403 (42.0)	137 (14.3)	420 (43.7)
Functional limitation (0-16)	307 (32.0)	148 (15.4)	505 (52.6)
Emotional wellbeing (0-12)	280 (29.2)	286 (29.8)	394 (41.0)
Social wellbeing (0-12)	235 (24.5)	311 (32.4)	414 (43.1)

Table 5 Correlation between mother and child considering total and subscale scores

Scale/Subscales	ICC	(95% CI)
Total scale	0.43	(0.35-0.50)
Subscales		
Oral symptoms	0.37	(0.29-0.45)
Functional limitation	0.36	(0.27-0.43)
Emotional wellbeing	0.37	(0.28-0.44)
Social wellbeing	0.40	(0.32-0.47)

ICC- intraclass correlation coefficient; $p<0.001$

Table 6 Agreement on total score between mothers and children according to age and gender of child

	ICC	p-value
Gender		
Male	0.20	0.015
Female	0.53	< 0.001
Age (years)		
11	0.46	< 0.001
12	0.57	< 0.001
13	0.42	< 0.001
14	0.11	0.199

ICC- intraclass correlation coefficient

Table 7 Agreement between mothers and children on each item of the P-CPQ and CPQ_{11-14} scales

Item	ICC	p-value
Oral Symptoms		
Pain	0.35	< 0.001
Mouth sores	0.32	< 0.001
Bad breath	0.34	< 0.001
Food caught in or between teeth	0.16	= 0.004
Functional limitation		
Taken longer than others to eat a meal	0.31	< 0.001
Difficulty biting or chewing food such as fresh apple, corn on the cob or firm meat	0.28	< 0.001
Difficulty saying words	0.35	< 0.001
Difficulty eating or drinking hot or cold foods	**0.45**	< 0.001
Emotional wellbeing		
Irritable or frustrated	0.28	< 0.001
Shy, embarrassed or ashamed	0.29	< 0.001
Upset	0.27	< 0.001
Social wellbeing		
Avoided smiling or laughing when around other children	**0.43**	< 0.001
Teased or called names by other children	0.37	< 0.001
Asked questions by other children about teeth, lips, mouth or jaws	0.22	< 0.001

ICC- intraclass correlation coefficient

CONSIDERAÇÕES FINAIS

O CPQ 11-14 é utilizado frequentemente para avaliar o impacto das condições bucais na qualidade de vida de adolescentes no Brasil e em outras partes do mundo.

No presente estudo, as prevalências de cárie dentária, de lesões traumáticas e de oclusopatia grave ou incapacitante foram de 72,0%, 17,1% e 48,0%, respectivamente. Apesar de ser menos prevalente que a cárie dentária, o impacto da oclusopatia na qualidade de vida mostrou-se mais evidente. O traumatismo dentário não apresentou repercussão na vida diária dos adolescentes pesquisados. Variáveis sociodemográficas como pertencer ao sexo feminino e frequentar escola pública também estiveram relacionadas às condições clínicas examinadas. Esses resultados evidenciam que as alterações bucais trazem um transtorno biopsicossocial aos indivíduos acometidos.

Ao se avaliar a percepção sobre a saúde bucal dos adolescentes e suas mães, em geral, os menores relataram um impacto negativo na sua qualidade de vida de forma mais grave do que suas responsáveis. É razoável considerar que o conhecimento das mães sobre os filhos venha a ser limitada, especialmente no que diz respeito às atividades e relacionamentos fora do ambiente familiar.

Dessa forma, a percepção das mães e dos adolescentes sobre a saúde bucal deve ser considerada de forma complementar, visando obter uma visão mais abrangente do impacto que as desordens bucais acarretam na qualidade de vida dos menores. Além disso, sugere-se que o governo brasileiro se empenhe na implementação de programas públicos com ações efetivas no intuito de melhorar a saúde bucal dos nossos adolescentes.

APÊNDICES

APÊNDICE 1 – CARTA DE AUTORIZAÇÃO ENVIADA À SECRETARIA MUNICIPAL DE EDUCAÇÃO DE BELO HORIZONTE

Belo Horizonte, 18 de março de 2008.

Ao Exmo.

Sr. Hugo Vocurca Teixeira

Secretário Municipal de Educação

Somos Daniela Goursand de Oliveira e Cristiane Baccin Bendo, cirurgiãs-dentista formadas pela Faculdade de Odontologia da Universidade Federal de Minas Gerais. Atualmente somos alunas do programa de pós-graduação da mesma faculdade, curso de Doutorado e Mestrado em Odontologia, área Odontopediatria. Dentro das atividades do curso estamos desenvolvendo uma pesquisa intitulada provisoriamente "Aplicação da versão curta do Child Perceptions Questionnaire 11-14: estudo representativo com adolescentes com cárie dentária, maloclusão e traumatismo dentário do município de Belo Horizonte/MG", cujo objetivo é mostrar através do exame clínico dos adolescentes e questionário direcionado a eles e seus pais/responsáveis a correlação entre o estado de saúde bucal dos adolescentes de 11-14 anos de Belo Horizonte e seu impacto na família. O estudo terá desenho transversal e será representativo da cidade.

Esta pesquisa poderá ajudar na melhoria do atendimento odontológico de nossa cidade e providenciar novo subsídio para o modelo de Promoção de Saúde.

Gostaria de sua autorização para realizar a pesquisa em escolas públicas da rede municipal de educação de Belo Horizonte, com os adolescentes na idade supracitada. A participação dos adolescentes e de seus pais/responsáveis será voluntária. Ressalto que o estudo não acarretará ônus algum para o município ou para as instituições.

Gratas pela atenção,

_____

Daniela Goursand de Oliveira

Doutoranda em Odontopediatria pela UFMG

_____

Cristiane Baccin Bendo

Mestranda em Odontopediatria pela UFMG

Orientadores: Prof. Dr. Saul Martins de Paiva, Prof. Dra. Miriam Pimenta Parreira do Vale e Prof. Dra. Isabela Almeida Pordeus.

APÊNDICE 2 – CARTA DE AUTORIZAÇÃO ENVIADA À SECRETARIA ESTADUAL DE EDUCAÇÃO DE MINAS GERAIS

Belo Horizonte, 14 de março de 2008.

À Exma.

Sra. Vanessa Guimarães Pinto

Secretária de Estado de Educação

Somos Daniela Goursand de Oliveira e Cristiane Baccin Bendo, cirurgiãs-dentista formadas pela Faculdade de Odontologia da Universidade Federal de Minas Gerais. Atualmente somos alunas do programa de pós-graduação da mesma faculdade, curso de Doutorado e Mestrado em Odontologia, área Odontopediatria. Dentro das atividades do curso estamos desenvolvendo uma pesquisa intitulada provisoriamente "Aplicação da versão curta do Child Perceptions Questionnaire 11-14: estudo representativo com adolescentes com cárie dentária, maloclusão e traumatismo dentário do município de Belo Horizonte/MG", cujo objetivo é mostrar através do exame clínico dos adolescentes e questionário direcionado a eles e seus pais/responsáveis a correlação entre o estado de saúde bucal dos adolescentes de 11-14 anos de Belo Horizonte e seu impacto na família. O estudo terá desenho transversal e será representativo da cidade.

Esta pesquisa poderá ajudar na melhoria do atendimento odontológico de nossa cidade e providenciar novo subsídio para o modelo de Promoção de Saúde.

Gostaria de sua autorização para realizar a pesquisa em escolas públicas e privadas de Belo Horizonte, com os adolescentes na idade supracitada. Ressalto que o estudo não acarretará ônus algum para o Estado ou para as instituições.

Gratas pela atenção,

_____

Daniela Goursand de Oliveira

Doutoranda em Odontopediatria pela UFMG

_____

Cristiane Baccin Bendo

Mestranda em Odontopediatria pela UFMG

Orientadores: Prof. Dr. Saul Martins de Paiva, Prof. Dra. Miriam Pimenta Parreira do Vale e Prof. Dra. Isabela Almeida Pordeus.

APÊNDICE 3 – CARTA DE AUTORIZAÇÃO ENVIADAS ÀS INSTITUIÇÕES PARTICULARES DE BELO HORIZONTE

À Coordenação da Instituição

Venho, por meio desta, solicitar autorização para desenvolver um estudo de pesquisa em sua escola. O estudo é intitulado "Aplicação da versão curta do Child Perceptions Questionnaire 11-14: estudo representativo com adolescentes com cárie dentária, maloclusão e traumatismo dentário do município de Belo Horizonte/MG" e tem como objetivo principal avaliar através do exame clínico dos adolescentes e questionário direcionado a eles e seus pais/responsáveis a correlação entre o estado de saúde bucal dos adolescentes de 11-14 anos de Belo Horizonte e seu impacto na família. Ele será realizado por três dentistas, duas alunas do curso de Doutorado (Daniela Goursand de Oliveira e Cíntia Silva Torres) e uma aluna do curso de Mestrado (Cristiane Baccin Bendo) em Odontopediatria da UFMG. Os adolescentes de 11-14 anos de idade serão submetidos ao exame clínico odontológico, dentro da escola, um aluno de cada vez, com duração de 10 minutos, não atrapalhando o andamento escolar. Este exame não oferece risco de nenhuma natureza para os adolescentes, é rápido e indolor. Durante o exame não será realizado o tratamento, mas aqueles que necessitarem de atendimento serão comunicados para que recebam o atendimento na Faculdade de Odontologia da UFMG.

Os pais responderão a um questionário sobre a repercussão da condição de saúde bucal do filho na família. Não haverá ônus algum para a instituição ou para os responsáveis pelos adolescentes.

O estudo terá desenho transversal e será representativo da cidade. Por isso, a participação da sua escola nessa pesquisa é de fundamental importância!

Nossos sinceros agradecimentos!

Daniela Goursand, Cristiane Bendo, Cíntia Torres

APÊNDICE 4 – VERSÃO BRASILEIRA DO CPQ 11-14 ISF:16

QUESTIONÁRIO DE SAÚDE BUCAL

Oi. Obrigado (a) por nos ajudar em nosso estudo.

Este estudo está sendo realizado para compreender melhor os problemas infantis causados por seus dentes, boca, lábios e maxilares. Respondendo à estas questões, você nos ajudará a aprender mais sobre as experiências de pessoas jovens.

POR FAVOR, LEMBRE-SE:

- Não escreva seu nome no questionário;
- Isto não é uma prova e não existem respostas certas ou erradas;
- Responda sinceramente o que você puder. Não fale com ninguém sobre as perguntas enquanto você estiver respondendo-as. Suas respostas são sigilosas, ninguém irá vê-las;
- Leia cada questão cuidadosamente e pense em suas experiências nos últimos 3 meses quando você for respondê-las.
- Antes de você responder, pergunte a si mesmo: “Isto acontece comigo devido a problemas com meus dentes, lábios, boca ou maxilares?”
- Coloque um (X) no espaço da resposta que corresponde melhor à sua experiência.

Data: _____/_____/_____.

INICIALMENTE, ALGUMAS PERGUNTAS SOBRE VOCÊ

Sexo:

( ) Masculino ( ) Feminino

Data de nascimento: _____/_____/_____

Você diria que a saúde de seus dentes, lábios, maxilares e boca é:

( ) Excelente

( ) Muito boa

( ) Boa

( ) Regular

( ) Ruim

Até que ponto a condição dos seus dentes, lábios, maxilares e boca afetam sua vida em geral?

( ) De jeito nenhum

( ) Um pouco

( ) Moderadamente

( ) Bastante

( ) Muitíssimo

PERGUNTAS SOBRE PROBLEMAS BUCAIS

Nos últimos 3 meses, com que freqüência você teve?

1. Dor nos seus dentes, lábios, maxilares ou boca?

( ) Nunca

( ) Uma ou duas vezes

( ) Algumas vezes

( ) Freqüentemente

( ) Todos os dias ou quase todos os dias

2. Feridas na boca?

( ) Nunca

( ) Uma ou duas vezes

( ) Algumas vezes

( ) Freqüentemente

( ) Todos os dias ou quase todos os dias

3. Mau hálito?

( ) Nunca

( ) Uma ou duas vezes

( ) Algumas vezes

( ) Freqüentemente

( ) Todos os dias ou quase todos os dias

4. Restos de alimentos presos dentre ou entre os seus dentes?

( ) Nunca

( ) Uma ou duas vezes

( ) Algumas vezes

( ) Freqüentemente

( ) Todos os dias ou quase todos os dias

Para as perguntas seguintes...

Isso aconteceu por causa de seus dentes, lábios, maxilares e boca?

Nos últimos 3 meses, com que freqüência você:

5. Demorou mais que os outros para terminar sua refeição?

( ) Nunca

( ) Uma ou duas vezes

( ) Algumas vezes

( ) Freqüentemente

( ) Todos os dias ou quase todos os dias

Nos últimos 3 meses, por causa dos seus dentes, lábios, boca e maxilares, com que freqüência você teve:

6. Dificuldade para morder ou mastigar alimentos como maçãs, espiga de milho ou carne?

( ) Nunca
( ) Uma ou duas vezes
( ) Algumas vezes
( ) Freqüentemente
( ) Todos os dias ou quase todos os dias

7. Dificuldades para dizer algumas palavras?

( ) Nunca
( ) Uma ou duas vezes
( ) Algumas vezes
( ) Freqüentemente
( ) Todos os dias ou quase todos os dias

8. Dificuldades para beber ou comer alimentos quentes ou frios?

( ) Nunca
( ) Uma ou duas vezes
( ) Algumas vezes
( ) Freqüentemente
( ) Todos os dias ou quase todos os dias

PERGUNTAS SOBRE SENTIMENTOS E/OU SENSAÇÕES

Você já experimentou esse sentimento por causa de seus dentes, lábios, maxilares ou boca?

Se você se sentiu desta maneira por outro motivo, responda “nunca”.

9. Ficou irritado (a) ou frustrado (a)?

( ) Nunca

( ) Uma ou duas vezes

( ) Algumas vezes

( ) Freqüentemente

( ) Todos os dias ou quase todos os dias

10. Ficou tímido, constrangido ou com vergonha?

( ) Nunca

( ) Uma ou duas vezes

( ) Algumas vezes

( ) Freqüentemente

( ) Todos os dias ou quase todos os dias

11. Ficou chateado?

( ) Nunca

( ) Uma ou duas vezes

( ) Algumas vezes

( ) Freqüentemente

( ) Todos os dias ou quase todos os dias

12. Ficou preocupado com o que as outras pessoas pensam sobre seus dentes, lábios, boca ou maxilares?

( ) Nunca

( ) Uma ou duas vezes

( ) Algumas vezes

( ) Freqüentemente

( ) Todos os dias ou quase todos os dias

PERGUNTAS SOBRE SUAS ATIVIDADES EM SEU TEMPO LIVRE E NA COMPANHIA DE OUTRAS PESSOAS

Você já teve estas experiências por causa dos seus dentes, lábios, maxilares ou boca? Se for por outro motivo, responda “nunca”.
Nos últimos 3 meses, com que freqüência você:

13. Evitou sorrir ou dar risadas quando está com outras crianças?
( ) Nunca
( ) Uma ou duas vezes
( ) Algumas vezes
( ) Freqüentemente
( ) Todos os dias ou quase todos os dias

14. Discutiu com outras crianças ou pessoas de sua família?
( ) Nunca
( ) Uma ou duas vezes
( ) Algumas vezes
( ) Freqüentemente
( ) Todos os dias ou quase todos os dias

Nos últimos 3 meses, por causa de seus dentes, lábios, boca ou maxilares, com que freqüência:

15. Outras crianças lhe aborreceram ou lhe chamaram por apelidos?
( ) Nunca
( ) Uma ou duas vezes
( ) Algumas vezes
( ) Freqüentemente
( ) Todos os dias ou quase todos os dias

16. Outras crianças lhe fizeram perguntas sobre seus dentes, lábios, maxilares e boca?

( ) Nunca

( ) Uma ou duas vezes

( ) Algumas vezes

( ) Freqüentemente

( ) Todos os dias ou quase todos os dias

OBRIGADO POR NOS AJUDAR!

APÊNDICE 5 – VERSÃO BRASILEIRA DO P-CPQ

QUESTIONÁRIO DE SAÚDE BUCAL:
RELATO DOS PAIS OU DO RESPONSÁVEL

INSTRUÇÕES

1. Este questionário trata dos efeitos das condições orais no bem-estar e no dia-a-dia das crianças e dos efeitos sobre suas famílias. Estamos interessados em qualquer condição que envolva dentes, lábios, boca e maxilares. Por favor, responda a todas as perguntas.
2. Para responder à pergunta, por favor, coloque um (X) no espaço ao lado da resposta.
3. Por favor, marque a resposta que melhor descreva a experiência de sua criança. Se a pergunta não se aplicar a sua criança, por favor, responda “nunca”.

Exemplo: Com que freqüência sua criança teve dificuldades para prestar atenção na sala de aula? Se sua criança teve dificuldades para prestar atenção à aula, na escola devido a problemas com seus dentes, lábios, boca ou maxilares, escolha a resposta apropriada. Se isto aconteceu por outro motivo, escolha “nunca”.

( ) Nunca
( ) Uma ou duas vezes
( ) Algumas vezes
( ) Freqüentemente
( ) Todos os dias ou quase todos os dias
( ) Não sei

4. Por favor, não converse sobre as perguntas com sua criança, pois neste questionário nós nos interessamos apenas pela opinião dos responsáveis

Data: _____/_____/_____

SEÇÃO 1: SAÚDE BUCAL E BEM-ESTAR

1. Como você avaliaria a saúde dos dentes, lábios, maxilares, e da boca de sua criança:

( ) Excelente ( ) Muito boa ( ) Boa ( ) Regular ( ) Ruim

2. Até que ponto o bem-estar geral de sua criança é afetado pelas condições dos seus dentes, lábios, maxilares ou boca?

( ) De jeito nenhum ( ) Bem pouco ( ) Moderadamente

( ) Muito ( ) Muitíssimo

SEÇÃO 2: AS PERGUNTAS SEGUINTES TRATAM DOS SINTOMAS E DESCONFORTO QUE SUA CRIANÇA PODE APRESENTAR DEVIDO ÀS CONDIÇÕES DE SEUS DENTES, LÁBIOS, BOCA E MAXILARES

Nos últimos 3 meses, com que freqüência sua criança teve:

3. Dor nos dentes, lábios, maxilares ou boca?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

4. Gengivas sangrantes?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

5. Feridas na boca?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

6. Mau hálito?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

7. Restos de alimentos no céu da boca?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

8. Restos de alimentos presos dentre ou entre os dentes?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

9.Dificuldade para morder ou mastigar alimentos como maçãs, espiga de milho ou carne?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

Nos últimos 3 meses, por causa dos seus dentes, lábios, boca e maxilares, com que freqüência sua criança:

10. Respirou pela boca?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

11. Teve problemas para dormir?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

12. Teve dificuldades para dizer algumas palavras?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

13. Demorou mais que os outros para terminar sua refeição?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

14. Teve dificuldades para beber ou comer alimentos quentes ou frios?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

15. Teve dificuldades para comer alimentos que ela gostaria de comer?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

16. Teve a dieta restringida a certos tipos de alimentos (ex. alimentos moles)?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

SEÇÃO 3: AS PERGUNTAS SEGUINTES TRATAM DOS EFEITOS QUE AS CONDIÇÕES DOS DENTES, LÁBIOS, BOCA E MAXILAS PODEM TER SOBRE OS SEUS SENTIMENTOS E AS SUAS ATIVIDADES DIÁRIAS

Nos últimos 3 meses, por causa dos seus dentes, lábios, boca e maxilares, com que freqüência sua criança esteve:

17. Chateada?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

18. Irritável ou frustrada?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

19. Ansiosa ou com medo?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

20. Ficou preocupada por achar que ela tem poucos amigos?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

Nos últimos 3 meses, por causa dos seus dentes, lábios, boca e maxilares, com que freqüência sua criança:

21. Faltou à escola (ex. por dor, consulta com o dentista, cirurgia)?
( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

22. Teve dificuldade para prestar atenção na sala de aula?
( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

23. Não quis falar ou ler em voz alta na sala de aula?
( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

24. Não quis conversar com outras crianças?
( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

25. Evitou sorrir ou dar risada na companhia de outras crianças?
( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

Nos últimos 3 meses, por causa dos seus dentes, lábios, boca ou maxilares, com que freqüência a sua criança:

26. Ficou preocupada por achar que ela é diferente das outras pessoas?
( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

27. Ficou preocupada por achar que sua aparência não é tão boa como a das outras pessoas?
( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

28. Agiu de modo tímido, constrangido ou com vergonha?
( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

29. Foi alvo de brincadeiras ou apelidos por parte de outras crianças?
( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

30. Foi excluída por outras crianças?
( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

31. Não quis ou não pôde brincar com outras crianças?
( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

32. Não quis ou não pôde participar de atividades tais como esporte, clubes, teatro, música, passeios escolares?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias)
( ) Não sei

Nos últimos 3 meses, com que freqüência sua criança:

33. Foi perguntada por outras crianças a respeito dos dentes, lábios, boca ou maxilares dela?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

SEÇÃO 4: AS PERGUNTAS SEGUINTES TRATAM DOS EFEITOS QUE A CONDIÇÃO BUCAL DE SUA CRIANÇA PODE TER NOS SEUS PAIS OU OUTROS MEMBROS DA FAMÍLIA

Nos últimos 3 meses, por causa dos dentes, lábios, boca ou maxilares, com que freqüência você ou outro membro da família:

34. Ficou chateada (o)?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

35. Teve seu sono interrompido?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

36. Sentiu-se culpada (o)?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

37. Teve que se ausentar do trabalho (por ex.: dor, consulta com o dentista, cirurgia)?
( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

38. Teve menos tempo para você ou para sua família?
( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

39. Ficou preocupada (o) com a possibilidade de sua criança ter menos oportunidades na vida (por ex.: para namorar, casar, ter filhos, conseguir um emprego de que ela goste)?
( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

40. Ficou pouco a vontade em lugares públicos (por ex.: lojas, restaurantes) na companhia de sua criança?
( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

Nos últimos 3 meses, por causa dos dentes, lábios, boca ou maxilares, com que freqüência sua criança:

41. Teve ciúmes de você ou de outros membros da família?
( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes
( ) Freqüentemente ( ) Todos os dias ou quase todos os dias
( ) Não sei

42. Culpou você ou outro membro da família?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

43. Discutiu com você ou outros membros da família?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

44. Exigiu mais atenção de você ou de outros membros da família?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

Nos últimos 3 meses, com que freqüência a condição dos dentes, lábios, boca ou maxilares de sua criança:

45. Interferiu nas atividades da família em casa ou em outro lugar?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

46. Causou discordância ou conflito em sua família?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

47. Causou dificuldades financeiras para sua família?

( ) Nunca ( ) Uma ou duas vezes ( ) Algumas vezes

( ) Freqüentemente ( ) Todos os dias ou quase todos os dias

( ) Não sei

SEÇÃO 5: IDADE E GÊNERO DA CRIANÇA

Sua criança é do sexo

( ) Masculino ( ) Feminino

A idade do seu filho (a) é: _____ anos

O questionário foi preenchido por:

( ) Mãe ( ) Pai ( ) outro:_____

OBRIGADO (A) POR SUA PARTICIPAÇÃO.

APÊNDICE 6 – FORMULÁRIO DE AVALIAÇÃO CLÍNICA

Nome do adolescente:_____
Data de nascimento:___/___/___ Sexo: 1-Masculino ( ) 2-Feminino ( )
Escola:_____
Data do exame:_____/_____/_____

TRAUMATISMO

1-Fratura de esmalte (fratura coronária não complicada) 2-Fratura de esmalte e dentina (fratura coronária não complicada) 3-Fratura coronária complicada 4-Luxação extrusiva 5-Luxação lateral 6-Luxação intrusiva 7-Avulsão (ANDREASEN e ANDREASEN, 1994) 8-Mudança de cor da coroa 9-Tratamento reabilitador	**22**	**21**	**11**	**12**
	42	**41**	**31**	**32**

CPO-D

17	**16**	**15**	**14**	**13**	**12**	**11**	**21**	**22**	**23**	**24**	**25**	**26**	**27**
47	**46**	**45**	**44**	**43**	**42**	**41**	**31**	**32**	**33**	**34**	**35**	**36**	**37**

(0) hígido (1) lesão de cárie cavitada em esmalte (2) lesão de cárie cavitada em dentina (3) dente restaurado com cárie (4) dente restaurado sem cárie (5) dente perdido

Índice Estético Dental (IED)

Número de dentes ausentes na arcada superior e inferior	
Apinhamento anterior:	
(0-sem apinhamento, 1-um segmento apinhado, 2-dois segmentos apinhados)	
Espaçamento anterior:	
(0-sem espaçamento, 1-um segmento espaçado, 2-dois segmentos espaçados)	
Diastema em mm:	
Maior irregularidade anterior superior em mm:	
Maior irregularidade anterior inferior em mm:	
Sobressaliência superior anterior em mm:	

Sobressaliência inferior anterior em mm:	
Mordida aberta anterior vertical em mm:	
Relação molar antero-posterior: (0-normal, 1-meia cúspide, 2-uma cúspide)	

ANEXOS

ANEXO 1 - AUTORIZAÇÃO COEP - UFMG

UNIVERSIDADE FEDERAL DE MINAS GERAIS
COMITÊ DE ÉTICA EM PESQUISA - COEP

Parecer nº. ETIC 110/08

Interessado(a): Prof. Miriam Pimenta Parreira do Vale
Departamento de Odontopediatria e Ortodontia
Faculdade de Odontologia - UFMG

DECISÃO

O Comitê de Ética em Pesquisa da UFMG – COEP aprovou, no dia 16 de maio de 2008, após atendidas as solicitações de diligência, o projeto de pesquisa intitulado **"Influência da maloclusão, cárie e traumatismo dentário na qualidade de vida auto-relatada por adolescentes: estudo representativo do município de Belo Horizonte/MG"** bem como o Termo de Consentimento Livre e Esclarecido.

O relatório final ou parcial deverá ser encaminhado ao COEP um ano após o início do projeto.

Profa. Maria Teresa Marques Amaral
Coordenadora do COEP-UFMG

Av. Pres. Antonio Carlos, 6627 – Unidade Administrativa II - 2º andar – Sala 2005 – Cep:31270-901 – BH-MG
Telefax: (031) 3409-4592 - e-mail: coep@prpq.ufmg.br

ANEXO 2 – CARTA DE AUTORIZAÇÃO DA SECRETARIA MUNICIPAL DE EDUCAÇÃO DE BELO HORIZONTE

PREFEITURA MUNICIPAL
DE BELO HORIZONTE

SMED/EXTER/0360-2008.

Belo Horizonte, 19 de março de 2008.

Prezadas Senhoras,

Em atenção à solicitação de V. Sªs, autorizamos a realização de pesquisa nas escolas da Rede Municipal de Educação, intitulada "Aplicação da versão curta do Child Perceptions Questionnaire 11-14: estudo representativo com adolescentes com cárie dentária, maloclusão e traumatismo dentário do município de Belo Horizonte/MG", por meio de exame clínico dos adolescentes e questionário direcionado a eles e seus pais/responsáveis.

Entretanto, ressaltamos a necessidade de garantia dos seguintes itens:

1. fazer contatos prévios com as escolas, alunos e responsáveis que se mostrem interessados e disponíveis para colaborarem;
2. respeitar aqueles que optarem por não participar;
3. respeitar a confidencialidade dos dados, de modo a não expor nenhuma das escolas, profissionais, alunos e responsáveis.

Atenciosamente,

Luiz Henrique Borges de Oliveira
BM 39.239-5
Chefe de Gabinete da Secretaria
Municipal de Educação

HUGO VOCURCA TEIXEIRA
Secretário Municipal de Educação

Às Senhoras
Cristiane Baccin Bendo e
Daniela Goursand de Oliveira
Mestranda e Doutoranda, respectivamente,
em Odontopediatria pela Universidade Federal de Minas Gerais
CAPITAL

ANEXO 3 – CARTA DE AUTORIZAÇÃO DA SECRETARIA ESTADUAL DE EDUCAÇÃO DE MINAS GERAIS

ESTADO DE MINAS GERAIS
GABINETE DO SECRETÁRIO DE ESTADO DE EDUCAÇÃO

CARTA GS 0565 /08

Belo Horizonte, 26 de março de 2008.

Prezadas Senhoras
Daniela Goursand de Oliveira e Cristiane Baccin Bendo

Em atenção a sua solicitação, ficam V.Sas. autorizadas a realizar, como parte das atividades de seu curso de pós-graduação, pesquisa junto a alunos da rede estadual de ensino e seus responsáveis, com o objetivo de mostrar a correlação entre o estado de saúde bucal dos adolescentes de 11-14 anos de Belo Horizonte e seu impacto na família.

Atenciosamente,

VANESSA GUIMARÃES PINTO
Secretária de Estado de Educação

SAG/Secretária/carta 02 – 2008 - slp

Avenida Amazonas, 5855 - Gameleira - Fax (031) 3379 8290 - Tel. (031) 3379 8300 CEP 30 510-000 - Belo Horizonte - MG

ANEXO 4 – CARTA DE AUTORIZAÇÃO DAS ESCOLAS PARTICIPANTES

Autorização

Autorizo a realização do estudo "Aplicação da versão curta do Child Perceptions Questionnaire 11-14 (CPQ 11-14): estudo representativo com adolescentes com cárie dentária, maloclusão e traumatismo dentário do município de Belo Horizonte/MG", tendo como responsáveis as alunas de Mestrado (Cristiane Baccin Bendo) e de Doutorado (Daniela Goursand de Oliveira e Cíntia Silva Torres), da Faculdade de Odontologia da UFMG, na escola Colégio Pitágoras, com a participação voluntária dos adolescentes, bem como seus pais ou responsáveis devidamente esclarecidos, através da assinatura do Termo de Consentimento Livre e Esclarecido.

Belo Horizonte, 06 de abril de 2009

Assinatura

COLÉGIO PITÁGORAS - CIDADE JARDIM
Av. Prudente de Moraes, 1602 - Belo Horizonte
Tel.: 3344-3099 - Fax: 3344-7066
Resolução SEE/MG n.º 1473/75 - MG 24/06/75
Portaria SEE/MG n.º 430/77 - MG 22/12/77
Portaria SEE/MG n.º 1986/87 - MG 21/10/87

Autorização

Autorizo a realização do estudo "Aplicação da versão curta do Child Perceptions Questionnaire 11-14 (CPQ 11-14): estudo representativo com adolescentes com cárie dentária, maloclusão e traumatismo dentário do município de Belo Horizonte/MG", tendo como responsáveis as alunas de Mestrado (Cristiane Baccin Bendo) e de Doutorado (Daniela Goursand de Oliveira e Cíntia Silva Torres), da Faculdade de Odontologia da UFMG, na escola E.M. Mestre Ataíde, com a participação voluntária dos adolescentes, bem como seus pais ou responsáveis devidamente esclarecidos, através da assinatura do Termo de Consentimento Livre e Esclarecido.

Belo Horizonte, 10 de novembro de 2008

Assinatura

Francisco Antônio Diamantino
Vice-Diretor - E. M. Mestre Ataíde
BM 20599-4 - Nomeação DOM 20/01/2007

ESCOLA MUNICIPAL "MESTRE ATAÍDE"
Denom. e Criação Dec. Mun. n.º 2.236 de 27/07/72 e n.º 5905 de 24/03/88 Ensino Fundamental e Médio-Reconhecimento Port. SEE MG n.º 291 de 18/08/77 e n.º 1332 de 23/12/95.
Rua Augusto José dos Santos, 560 - Betânia
CEP 30580-100 - Fone: 3277-5984
Belo Horizonte - Minas Gerais

Autorização

Autorizo a realização do estudo "Aplicação da versão curta do Child Perceptions Questionnaire 11-14 (CPQ 11-14): estudo representativo com adolescentes com cárie dentária, maloclusão e traumatismo dentário do município de Belo Horizonte/MG", tendo como responsáveis as alunas de Mestrado (Cristiane Baccin Bendo) e de Doutorado (Daniela Goursand de Oliveira e Cíntia Silva Torres), da Faculdade de Odontologia da UFMG, na escola Colégio São Miguel Arcanjo, com a participação voluntária dos adolescentes, bem como seus pais ou responsáveis devidamente esclarecidos, através da assinatura do Termo de Consentimento Livre e Esclarecido.

COLÉGIO SÃO MIGUEL ARCANJO
PADRES ESCOLÁPIOS
Rua Ildefonso Alvim, 501 – Nova Floresta
3444-1955 / 3444-1836 / Fax: 3442-5448
Jardim Berço-Flor – Port. SMED Nº 164/03
Ens. Fundamental - Portarias 115/80 e 432/76
Ensino Médio – Portaria 1808/87
Credenciamento da Entidade Mantenedora
Portaria Nº 765/03

Belo Horizonte, 27 de fevereiro de 2009

Assinatura

Soraya Id El Malih
SECRETÁRIA AUTORIZ 005785 SEE/MG

Autorização

Autorizo a realização do estudo "Aplicação da versão curta do Child Perceptions Questionnaire 11-14 (CPQ 11-14): estudo representativo com adolescentes com cárie dentária, maloclusão e traumatismo dentário do município de Belo Horizonte/MG", tendo como responsáveis as alunas de Mestrado (Cristiane Baccin Bendo) e de Doutorado (Daniela Goursand de Oliveira e Cíntia Silva Torres), da Faculdade de Odontologia da UFMG, na escola E.M. Hugo Pinheiro Soares, com a participação voluntária dos adolescentes, bem como seus pais ou responsáveis devidamente esclarecidos, através da assinatura do Termo de Consentimento Livre e Esclarecido.

Belo Horizonte, 05 de novembro de 2008

Assinatura

ROSA MARIA FERREIRA SIMÕES
Diretor-BM 38.365.5
NOMEAÇÃO DOM-20/01/2007
PORT. SMED-Nº 001/99 DE 06/02/99

Autorização

Autorizo a realização do estudo "Aplicação da versão curta do Child Perceptions Questionnaire 11-14 (CPQ 11-14): estudo representativo com adolescentes com cárie dentária, maloclusão e traumatismo dentário do município de Belo Horizonte/MG", tendo como responsáveis as alunas de Mestrado (Cristiane Baccin Bendo) e de Doutorado (Daniela Goursand de Oliveira e Cíntia Silva Torres), da Faculdade de Odontologia da UFMG, na escola Estadual Cândido Portinari, com a participação voluntária dos adolescentes, bem como seus pais ou responsáveis devidamente esclarecidos, através da assinatura do Termo de Consentimento Livre e Esclarecido.

Belo Horizonte, 10 de Setembro de 200__

E. E. Cândido Portinari
Eliane F. S. Mendes
Vice-Diretor - Masp 895.980-1

Assinatura

Autorização

Autorizo a realização do estudo "Aplicação da versão curta do Child Perceptions Questionnaire 11-14 (CPQ 11-14): estudo representativo com adolescentes com cárie dentária, maloclusão e traumatismo dentário do município de Belo Horizonte/MG", tendo como responsáveis as alunas de Mestrado (Cristiane Baccin Bendo) e de Doutorado (Daniela Goursand de Oliveira e Cíntia Silva Torres), da Faculdade de Odontologia da UFMG, na escola Colégio Salesiano - BH, com a participação voluntária dos adolescentes, bem como seus pais ou responsáveis devidamente esclarecidos, através da assinatura do Termo de Consentimento Livre e Esclarecido.

Belo Horizonte, 10 de setembro de 2008

Francisca Barbosa da Silva - Vice - diretora
Assinatura

Eu, Luciana Helena Arruda, responsável pela escola E. Municipal Professor Milton Lage., declaro ter sido devidamente esclarecido(a) e autorizo a realização da pesquisa "Aplicação da versão curta do Child Perceptions Questionnaire 11-14: estudo representativo com adolescentes com cárie dentária, maloclusão e traumatismo dentário do município de Belo Horizonte/MG", nesta escola.

Arruda

Luciana Helena Arrudas-SM: 75370-7
Vice-Diretor do Estabelecimento de Ensino
Nomeação: DOM: 20/01/2007

Autorização

Autorizo a realização do estudo "Aplicação da versão curta do Child Perceptions Questionnaire 11-14 (CPQ 11-14): estudo representativo com adolescentes com cárie dentária, maloclusão e traumatismo dentário do município de Belo Horizonte/MG", tendo como responsáveis as alunas de Mestrado (Cristiane Baccin Bendo) e de Doutorado (Daniela Goursand de Oliveira e Cíntia Silva Torres), da Faculdade de Odontologia da UFMG, na escola Colégio Pedro II - Rede Pitágoras, com a participação voluntária dos adolescentes, bem como seus pais ou responsáveis devidamente esclarecidos, através da assinatura do Termo de Consentimento Livre e Esclarecido.

Belo Horizonte, 13 de abril de 2009.

Assinatura

Autorização

Autorizo a realização do estudo "Aplicação da versão curta do Child Perceptions Questionnaire 11-14 (CPQ 11-14): estudo representativo com adolescentes com cárie dentária, maloclusão e traumatismo dentário do município de Belo Horizonte/MG", tendo como responsáveis as alunas de Mestrado (Cristiane Baccin Bendo) e de Doutorado (Daniela Goursand de Oliveira e Cíntia Silva Torres), da Faculdade de Odontologia da UFMG, na escola EE Melo Viana, com a participação voluntária dos adolescentes, bem como seus pais ou responsáveis devidamente esclarecidos, através da assinatura do Termo de Consentimento Livre e Esclarecido.

Belo Horizonte, 02 de ABRIL de 2007

Assinatura

E. E. "Melo Viana" - 1.º Grau - RO30B2
Decreto n.º 11394 de 22/06/34
Autorização 5.ª / 8.ª Resol. 3025/79 de 02/03/79
Av. Bonsucesso, 345 - C. Prates - Tel./Fax: (31) 3462-1088
CEP 30710-440 - Belo Horizonte - MG

JOSÉ LAERCIO DE SOUZA
Masc: 257460-6 DSB
Nomeação 20/07/07. Ato: 973/07
E.E. Melo Viana
Diretor

Autorização

Autorizo a realização do estudo "Aplicação da versão curta do Child Perceptions Questionnaire 11-14 (CPQ 11-14): estudo representativo com adolescentes com cárie dentária, maloclusão e traumatismo dentário do município de Belo Horizonte/MG", tendo como responsáveis as alunas de Mestrado (Cristiane Baccin Bendo) e de Doutorado (Daniela Goursand de Oliveira e Cíntia Silva Torres), da Faculdade de Odontologia da UFMG, na escola Centro de Ens. Pedagógico Pbagaluno com a participação voluntária dos adolescentes, bem como seus pais ou responsáveis devidamente esclarecidos, através da assinatura do Termo de Consentimento Livre e Esclarecido.

Belo Horizonte, 18 de março de 2009

Ana Maria Mazzi Adabella

Assinatura

Autorização

Autorizo a realização do estudo "Aplicação da versão curta do Child Perceptions Questionnaire 11-14 (CPQ 11-14): estudo representativo com adolescentes com cárie dentária, maloclusão e traumatismo dentário do município de Belo Horizonte/MG", tendo como responsáveis as alunas de Mestrado (Cristiane Baccin Bendo) e de Doutorado (Daniela Goursand de Oliveira e Cíntia Silva Torres), da Faculdade de Odontologia da UFMG, na escola E.M. Carmelita Carvalho Garcia, com a participação voluntária dos adolescentes, bem como seus pais ou responsáveis devidamente esclarecidos, através da assinatura do Termo de Consentimento Livre e Esclarecido.

Belo Horizonte, 3 de março de 2009

Assinatura

Auxiliadora Maria de Souza Jorge
DIRETORA DE ESTABELECIMENTO DE ENSINO
BM 45.696-2 - NOMEAÇÃO DOM 15/01/09
AUT. PORT. SMED 001/09 DE 08/01/09

Autorização

Autorizo a realização do estudo "Aplicação da versão curta do Child Perceptions Questionnaire 11-14 (CPQ 11-14): estudo representativo com adolescentes com cárie dentária, maloclusão e traumatismo dentário do município de Belo Horizonte/MG", tendo como responsáveis as alunas de Mestrado (Cristiane Baccin Bendo) e de Doutorado (Daniela Goursand de Oliveira e Cíntia Silva Torres), da Faculdade de Odontologia da UFMG, na escola EE. Margarida Brochado, com a participação voluntária dos adolescentes, bem como seus pais ou responsáveis devidamente esclarecidos, através da assinatura do Termo de Consentimento Livre e Esclarecido.

Belo Horizonte, 11 de setembro de 2008

Norma Suely P. de C. Pereira
D3B - Masp 273.864-9
Nomeação MG 03.07.2007
Margarida Brochado

Pereira

Assinatura

Autorização

Autorizo a realização do estudo "Aplicação da versão curta do Child Perceptions Questionnaire 11-14 (CPQ 11-14): estudo representativo com adolescentes com cárie dentária, maloclusão e traumatismo dentário do município de Belo Horizonte/MG", tendo como responsáveis as alunas de Mestrado (Cristiane Baccin Bendo) e de Doutorado (Daniela Goursand de Oliveira e Cíntia Silva Torres), da Faculdade de Odontologia da UFMG, na escola E. E. Des. Rodrigues Campos, com a participação voluntária dos adolescentes, bem como seus pais ou responsáveis devidamente esclarecidos, através da assinatura do Termo de Consentimento Livre e Esclarecido.

Belo Horizonte, 31 de Outubro de 2008

E. E. DES. RODRIGUES CAMPOS
Marivaldo Ribeiro dos Santos
Diretor
NOM. MG-0003963-6

Assinatura

Autorização

Autorizo a realização do estudo "Aplicação da versão curta do Child Perceptions Questionnaire 11-14 (CPQ 11-14): estudo representativo com adolescentes com cárie dentária, maloclusão e traumatismo dentário do município de Belo Horizonte/MG", tendo como responsáveis as alunas de Mestrado (Cristiane Baccin Bendo) e de Doutorado (Daniela Goursand de Oliveira e Cíntia Silva Torres), da Faculdade de Odontologia da UFMG, na escola SESI HAMLETO MAGNAVACCA, com a participação voluntária dos adolescentes, bem como seus pais ou responsáveis devidamente esclarecidos, através da assinatura do Termo de Consentimento Livre e Esclarecido.

Belo Horizonte, 29 de setembro de 2008

Assinatura

ANEXO 5 – VERSÃO ORIGINAL DO CPQ 11-14 ISF:16

CHILD ORAL HEALTH QUESTIONNAIRE

HELLO,

Thanks for agreeing to help us with our study!

This study is being done so that there will be more understanding about problems children may have because of their teeth, mouth, lips and jaws. By answering the questions, you will help us learn more about young people's experiences.

PLEASE REMEMBER

- Don't write your name on the questionnaire
- This is not a test and there are no right or wrong answers
- Answer as honestly as you can. Don't talk to anyone about the questions when you are answering them. Your answers are private. No one you know will see them.
- Read each question carefully and think about your experiences in the past 3 months when you answer.
- Before you answer, ask yourself: "Does this happen to me because of problems with my teeth, lips, mouth or jaws?
- Put an X in the box for the answer that is best for you.

Today's date: _____/_____/_____
DAY/MONTH/YEAR

FIRST, A FEW QUESTIONS ABOUT YOU

1. Are you a boy or girl?

( ) Boy
( ) Girl

2. When were you born? _____/_____/_____
DAY/ MONTH/YEAR

3. Would you say the health of your teeth, lips, jaws and mouth is:

( ) excellent
( ) very good
( ) good
( ) fair
( ) poor

4. How much does the condition of your teeth, lips, jaws or mouth affect your life overall?

( ) excellent
( ) very good
( ) good
( ) fair
( ) poor

QUESTIONS ABOUT ORAL PROBLEMS

In the past 3 months, how often have you had:

5. Pain in your teeth, lips, jaws or mouth?

( ) never
( ) once or twice

( ) sometimes
( ) often
( ) every or almost every day

6. Sores in your mouth?

( ) never
( ) once or twice
( ) sometimes
( ) often
( ) every or almost every day

7. Bad breath?

( ) never
( ) once or twice
( ) sometimes
( ) often
( ) every or almost every day

8. Food stuck in or between your teeth?

( ) never
( ) once or twice
( ) sometimes
( ) often
( ) every or almost every day

FOR THE QUESTIONS…

Has this happened because of your teeth, lips, jaws or mouth?
In the past 3 months, how often have you?

9. Taken longer than others to eat a meal?

( ) never
( ) once or twice
( ) sometimes

( ) often
( ) every or almost every day

10. Difficult to bite or chew food like apples, corn on the cob or steak?

( ) never
( ) once or twice
( ) sometimes
( ) often
( ) every or almost every day

11. Difficult to say any words?

( ) never
( ) once or twice
( ) sometimes
( ) often
( ) every or almost every day

12. Difficult to drink or eat hot or cold foods?

( ) never
( ) once or twice
( ) sometimes
( ) often
( ) every or almost every day

QUESTIONS ABOUT FEELINGS

Have you had the feeling because of your teeth, lips, jaws or mouth?
If you felt this way for another reason, answer “never”.

In the past 3 months, how often have you?

13. Felt irritable or frustrated?

( ) never
( ) once or twice

( ) sometimes
( ) often
( ) every or almost every day

14. Felt shy?

( ) never
( ) once or twice
( ) sometimes
( ) often
( ) every or almost every day

15. Been upset?

( ) never
( ) once or twice
( ) sometimes
( ) often
( ) every or almost every day

In the past 3 months, because of your teeth, lips, mouth or jaws, how often have you?

16. Been concerned what other people think about your teeth, lips, mouth or jaws?

( ) never
( ) once or twice
( ) sometimes
( ) often
( ) every or almost every day

QUESTIONS ABOUT YOUR SPARE-TIME ACTIVITIES & BEING WITH OTHER PEOPLE

Have you had these experiences because of your teeth, lips, jaws or mouth? If it was for another reason, answer “never”.

17. Avoid smiling or laughing when around other children?

( ) never
( ) once or twice
( ) sometimes
( ) often
( ) every or almost every day

18. Argued with other children or your family?

( ) never
( ) once or twice
( ) sometimes
( ) often
( ) every or almost every day

19.Other children teased you or called you names?

( ) never
( ) once or twice
( ) sometimes
( ) often
( ) everyday or almost every day

20. Other children asked you questions about your teeth, lips, jaws or moth?

( ) never
( ) once or twice
( ) sometimes
( ) often
( ) every or almost every day

THANK YOU FOR HELPING US!!!

ANEXO 6 – VERSÃO ORIGINAL DO P-CPQ

Parental-Caregiver Perception Questionnaire **(P-CPQ) and** ***Family Impact Scale*** **(FIS)**

INSTRUCTIONS TO PARENTS

1. This questionnaire is about the effects of oral conditions on children's well-being and everyday life, and the effects on their families. We are interested in any condition that involves teeth, lips mouth or jaws. **Please answer each question.**
2. To answer the question please put an **X in the box by the response**.
3. Please give the response that **best describes your child's experience**. If the question does not apply to your child, please answer with "Never".

   Example: How often has your child had a hard time paying attention in school?

   If your child has had a hard time paying attention in school because of problems with his/her teeth, lips mouth or jaws, choose the appropriate response. If it has happened for other reasons, choose "Never".

   ( )Never ( )Once or twice ( )Sometimes ( )Often
   ( )Everyday or almost everyday ( )Don't know

4. Please do **not discuss the questions with your child**, as we are interested only in the parents' perspective in this questionnaire.

SECTION 1: Child's oral health and wellbeing

1. **How would you rate the health of your child's teeth, lips, jaws and mouth?**

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

2. **How much is your child's overall wellbeing affected by the condition of his/her teeth, lips, jaws or mouth?**

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

SECTION 2: The following questions ask about symptoms and discomfort that children may experience due to the condition of their teeth, lips, mouth and jaws

During the last 3 months, how often has your child had:

3. **Pain in the teeth, lips, jaws or mouth?**

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

4. **Bleeding gums?**

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

5. **Sores in the mouth?**

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

6. **Bad Breath?**

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

7. **Food stuck in the roof of the mouth?**

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

8. **Food caught in or between the teeth?**

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

9. **Difficulty biting or chewing foods such as fresh Apple, corn on the cob or firm meat?**

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

During the last 3 months, because of his/her teeth, lips, mouth, or jaws, how often has your child:

10. Breathed through the mouth?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

11. Had trouble sleeping?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

12. Had difficulty saying any words?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

13. Taken longer than others to eat a meal?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

14. Had difficulty drinking or eating hot or cold foods?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

15. Had difficulty eating foods he/she would like to eat?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

16. Had diet restricted to certain types of food?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

SECTION 3: The following questions ask about the effects that <u>the condition of children's teeth, lips, mouth and jaws</u> may have on their <u>feelings</u> and <u>everyday activities</u>

During the <u>last 3 months</u>, because of his/her <u>teeth, lips, mouth, or jaws</u>, how often has your child been:

17. Upset?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

18. Irritable or frustrated?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

19. Anxious or fearful?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

During the last 3 months, because of his/her teeth, lips, mouth, or jaws, how often has your child:

20. Missed school (e.g. pain, appointments, surgery)?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

21. Had a hard time paying attention in school?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

22. Not wanted to speak or read out loud in class?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

23. Not wanted to talk to other children?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

24. Avoided smiling or laughing when around other children?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

During the last 3 months, because of his/her teeth, lips, mouth, or jaws, how often has your child:

25. Worried that He/she is not as healthy as other people?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

26. Worried that he/she is different than other people?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

27. Worried that he/she is not as good-looking as other people?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

28. Acted shy or embarrassed?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

29. Been teased or called names by other children?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

30. Been left out by other children?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

31. Not wanted or been unable to spend time with other children's?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

32. Not wanted or been unable to participate in activities such as sports, clubs, drama, music, school trips?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

33. Worried that he/she has fewer friends?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

During the last 3 months, how often has your child been:

34. Concerned what other people think about his/her teeth, lips, mouth or jaws?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

35. Asked questions by other children about his/her teeth, lips, mouth or jaws?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

SECTION 4: The following questions ask about effects that a <u>child's oral condition</u> may have on <u>PARENTS AND OTHER FAMILY MEMBERS</u>

During the <u>last 3 months</u>, because of your child's <u>teeth, lips, mouth or jaws</u>, how often have you or another family member:

36. Been upset?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

37. Had sleep disrupted?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

38. Felt guilty?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

39. Taken time off work (e.g. pain, appointments, surgery)?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

40. Had less time for yourself or the family?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

41. Worried that your child will have fewer life opportunities (e.g. for dating, getting married, having children, getting a job he/she will like)?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

42. Felt uncomfortable in public places (e.g. stores, restaurants) with your child?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

During the last 3 months, because of his/her teeth, lips, mouth, or jaws, how often has your child:

43. Been jealous of you or others in family?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

44. Blamed you or another person in the family?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

45. Argued with you or others in the family?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

46. Required more attention from you or others in the family?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

During the last 3 months, how often has the condition of your child's teeth, lips, mouth or jaws:

47. Interfered with family activities at home or elsewhere?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

48. Caused disagreement or conflict in your family?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

49. Caused financial difficulties for your family?

( )Never ( )Once or twice ( )Sometimes ( )Often
( )Everyday or almost everyday ( )Don't know

SECTION 5: Child's gender and age

a. Your child is:

( )MALE
( )FEMALE

b. Your child's age is: _____YEARS

Questionnaire completed by:

( )MOTHER
( )FATHER
( )OTHER _____

Date completed: _____/_____/_____
DAY MONTH YEAR

THANK YOU FOR YOUR PARTICIPATION!

ANEXO 7 – NORMAS DE PUBLICAÇÃO DO PERIÓDICO COMMUNITY DENTISTRY AND ORAL EPIDEMIOLOGY

For Authors

Instructions To Authors

Content of Author Guidelines: 1. General, 2. Ethical Guidelines, 3. Submission of Manuscripts, 4. Manuscript Format and Structure, 5. After Acceptance

Relevant Documents:Copyright Transfer Agreement, Colour Work Agreement Form
Useful Websites: Submission Site, Articles published in *Community Dentistry and Oral Edpidemiology*, Author Services, Blackwell Publishing's Ethical Guidelines, Guidelines for Figures

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PRODUÇÃO INTELECTUAL

Artigos completos publicados:

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