CÍNTIA SILVA TORRES

VALIDAÇÃO DAS FORMAS CURTAS DA VERSÃO BRASILEIRA DO *CHILD PERCEPTIONS QUESTIONNAIRE 11-14* (CPQ_{11-14})

BELO HORIZONTE

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Dissertação apresentada ao Colegiado do Programa de Pós-Graduação da Faculdade de Odontologia da Universidade Federal de Minas Gerais, como requisito parcial para obtenção do grau de Mestre em Odontologia.

Área de concentração: Odontopediatria

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FACULDADE DE ODONTOLOGIA
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Dedico este trabalho a todas as famílias e adolescentes que confiaram e aceitaram participar deste estudo.

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RESUMO

Validação das formas curtas da versão brasileira do C*hild Perceptions Questionnaire 11-14* (CPQ$_{11-14}$)

RESUMO

A necessidade de se avaliar a repercussão de alterações bucofaciais levou ao desenvolvimento de instrumentos de avaliação da qualidade de vida relacionada à saúde bucal. Um desses instrumentos é o *Child Perceptions Questionnaire* (CPQ$_{11-14}$), desenvolvido especificamente para crianças de 11 a 14 anos de idade. Considerando-se que este questionário apresenta um formato longo (37 itens), foram desenvolvidas versões curtas, contendo 8 (Impact Short Form:8 - ISF:8) e 16 itens (Impact Short Form:16 - ISF:16), com objetivo de ampliar a sua aplicabilidade. O artigo apresentado nessa dissertação objetivou traduzir e adaptar transculturalmente essas versões curtas do CPQ$_{11-14}$ para a língua portuguesa do Brasil e testar a confiabilidade e a validade dessas versões para utilização em crianças brasileiras. Esses instrumentos foram testados em uma amostra de 136 escolares, divididos em três grupos de acordo com o diagnóstico de cárie dentária e maloclusão. Os grupos formados foram grupo 1: sem alterações, grupo 2: crianças com cárie dentária cavitada e sem maloclusão e grupo 3: crianças sem cárie dentária cavitada e com maloclusão. As propriedades de consistência interna, confiabilidade teste-reteste, validade do construto, validade discriminante e de critério foram avaliadas nas duas formas curtas adaptadas. A média do escore total foi 6,8 (±4,2) para o ISF:8 e 11,9 (±7,6) para o ISF:16 *($p<0,001$).* Foi verificada associação entre as alterações bucais e os domínios do CPQ$_{11-14}$ - ISF:8 e ISF:16 ($p<0,05$). A consistência interna foi confirmada pelo coeficiente Alfa de Cronbach (0,70 e 0,84). A análise da confiabilidade teste-reteste demonstrou excelente reprodutibilidade, através do coeficiente de correlação intraclasse (0,98 e 0,97). Houve associação significativa entre a média do escore total e cada grupo clínico estudado nos dois instrumentos ($p<0,05$). A validade do construto foi satisfatória demonstrando correlação significativa entre o escore total e os indicadores globais. A validade de critério foi adequada, demonstrando boa correlação dos instrumentos entre si. O presente estudo apresentou propriedades psicométricas satisfatórias, confirmando que as versões curtas do CPQ$_{11-14}$ transculturalmente adaptadas para língua portuguesa são válidas e aplicáveis a crianças brasileiras da mesma faixa etária.

Descritores: Qualidade de vida, questionários, confiabilidade e validade.

ABSTRACT

Validation of shorts forms of Brazilian version of the C*hild Perceptions Questionnaire 11-14* (CPQ_{11-14})

ABSTRACT

The need to evaluate the impact of oral health has led to the development of instruments to measure oral-health-related quality of life. One such instrument is the Child Perceptions Questionnaire (CPQ_{11-14}), developed specifically for 11-to-14-year-old children. As this questionnaire was considered long (37 items), shorter forms were developed with 8 (Impact Short Form: 8 - ISF:8) and 16 items (Short Form Impact: 16 - ISF:16) to facilitate use in the clinical setting and population-based health surveys. The aim of the present study was to translate and cross-culturally adapt these short forms of the CPQ_{11-14} for Brazilian Portuguese and test the reliability and validity of these versions for use on Brazilian children. The instruments were tested on a sample of 136 children, divided into three groups according to the diagnosis of dental caries and malocclusion: Group 1 – children without untreated dental caries and without malocclusion; Group 2 – children with untreated tooth decay and without malocclusion; and Group 3 – children without untreated dental caries and with malocclusion. The properties of internal consistency, test-retest reliability, construct validity, discriminant validity and criterion validity were evaluated in the two short forms. The mean total score was 6.8 (±4.2) for the ISF:8 and 11.9 (±7.6) for the ISF:16 ($p<0.001$). Associations were found between oral disorders and the domains of the CPQ_{11-14} - ISF:8 and ISF:16 ($p<0.05$). Internal reliability was confirmed by Cronbach's alpha coefficient (0.70 and 0.84). Test-retest analysis revealed excellent reproducibility (intraclass correlation coefficients of 0.98 and 0.97). There was a significant association between the mean total score and clinical groups ($p<0.05$). Construct validity was satisfactory, revealing a significant correlation between total score and global indicators on each instrument. Criterion validity was appropriate, demonstrating a correlation between the instruments themselves. The present study demonstrated satisfactory psychometric properties, confirming that short forms of Brazilian version the CPQ_{11-14} are valid and applicable to children in Brazil.

Descriptors: Quality of life; oral health; questionnaires; cross-cultural adaptation.

LISTA DE ABREVIATURAS

ICC	Coeficiente de Correlação Intraclasse
CPQ_{11-14}	*Child Perceptions Questionnaire* 11-14
CT	Cíntia Torres
DAI	*Dental Aesthetic Index*
ISF:8	*Impact Short Form*:8
ISF:16	*Impact Short Form*:16
OMS	Organização Mundial de Saúde
RSF:8	*Regression Short Form:*8
RSF:16	*Regression Short Form:*16
SPSS	*Statistical Package for Social Sciences*
UFMG	Universidade Federal de Minas Gerais
COHQoL	Child Oral Health Quality of Life
FIS	Family Impact Scale
P-CPQ	Parental-Caregivers Perceptions Questionnaire

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SUMÁRIO

CONSIDERAÇÕES INICIAIS

A definição de saúde como perfeito bem-estar físico, mental e social, preconizada pela Organização Mundial de Saúde, tem sido bastante discutida na atualidade. Os sistemas normativos de determinação de necessidades, até então ignoravam os aspectos sócio-comportamentais e não reconheciam nenhum valor à questões como qualidade de vida ou à forma como as condições de saúde bucal poderiam afetar a vida diária de indivíduos (Sheiham, 2000).

As doenças bucais, como cárie dentária e maloclusão, são altamente prevalentes e suas conseqüências não são apenas físicas, mas também econômicas, sociais e psicológicas. Elas podem causar sérios prejuízos à vida dos indivíduos, podendo afetar a função mastigatória, aparência e até mesmo os relacionamentos inter-pessoais (Naito *et al*., 2006).

A saúde bucal ao ser considerada no contexto da promoção da saúde, permite uma reflexão sobre a inclusão de domínios antes não abordados, como sintomas bucais, limitações funcionais, bem-estar emocional e social (Gift, 1996; Jokovic *et al*., 2004). A experiência de cárie dentária, dor e desconforto têm mostrado influência na vida cotidiana e no comportamento das pessoas. São os fatores biopsicossociais das doenças, que interferem na qualidade de vida, afetando os indivíduos fisicamente e psicologicamente e influenciando a maneira como crescem, vivem, vêem, falam, mastigam, saboreiam os alimentos e se socializam, bem como os seus sentimentos e o bem-estar social (Sheiham, 2000).

Desta forma, observa-se um crescente interesse em pesquisas odontológicas que buscam quantificar a saúde bucal relacionada a qualidade de vida, bem como as repercussões das alterações bucais na vida diária de indivíduos e populações (Robinson, 2003). Nas últimas décadas, tem-se verificado o desenvolvimento de instrumentos que visam mensurar as conseqüências das doenças ou desordens que afetam a função, o conforto, e a desempenho das atividades diárias dos indivíduos. O conhecimento e avaliação dos processos patológicos se tornam fundamentais para a prevenção e o manejo clínico das doenças, entretanto, o conhecimento sistemático das conseqüências das doenças pode ser de valor adicional para alcançar estes objetivos.

Os instrumentos que avaliam o impacto social entre indivíduos ou grupos podem ser usados em conjunto com dados clínicos para o planejamento de ações em saúde, fornecendo informações importantes sobre o entendimento da saúde e de comportamentos individuais e coletivos (Slade, 1994).

Em odontologia, vários questionários sobre a autopercepção de impacto e estudos que avaliam a relação das condições bucais com a qualidade de vida foram desenvolvidos e estão disponíveis na literatura, principalmente direcionados para adultos e idosos (Slade, 1994; Slade, 1998; Herdman *et al*., 1998; Robinson, 2003).

Considerando-se que uma saúde bucal deficiente poderia produzir também efeitos negativos na qualidade de vida de crianças e adolescentes, instrumentos voltados para estas populações começaram a ser desenvolvidos. Os problemas bucais como dor, transtornos associados à erupção dentária, traumatismos dentários, patologias dos tecidos moles da boca, oclusopatias, fissuras lábiopalatais e fluorose dentária podem afetar a vida das crianças e adolescentes com freqüência variável (Cortes et al., 2002; Oliveira e Sheiham, 2004; Marques et al., 2006; Peres et al., 2003) e influenciar o desempenho escolar, podendo interferir até mesmo no sucesso profissional mais tarde (Kwan *et al*., 2005). Entretanto, pouco se conhece a respeito das conseqüências funcionais, emocionais e sociais que essas alterações podem trazer à qualidade de vida das crianças e adolescentes.

Os primeiros instrumentos especificamente direcionados às crianças foram desenvolvidos por Jokovic *et al*. (2002; 2004; 2006). Esses pesquisadores desenvolveram questionários para avaliação tanto da percepção das crianças e adolescentes quanto à própria condição bucal (CPQ), quanto para avaliação da percepção dos pais em relação à saúde bucal dos filhos (P-CPQ). Além de outro instrumento capaz de avaliar o impacto na família das condições de saúde bucal das crianças e adolescentes (FIS).

O *Child Perceptions Questionnaire* (CPQ_{11-14}), instrumento direcionado a crianças de 11 a 14 anos, foi desenvolvido e validado no Canadá. Os autores concluíram que os participantes foram capazes de descrever as repercussões da saúde bucal sobre a qualidade de vida, encontrando propriedades psicométricas satisfatórias (Jokovic *et al*., 2002).

O CPQ_{11-14} engloba os seguintes domínios: sintomas bucais, limitações funcionais, bem-estar emocional e social. Esse instrumento é considerado um instrumento longo, o que dificulta a sua aplicação tanto em ambientes clínicos, como em estudos populacionais. Sendo assim, uma forma reduzida aumentaria sua aplicabilidade, através da redução do tempo e dos custos para coleta dos dados. Para sanar essa limitação, Jokovic *et al*. (2006) desenvolveram versões curtas do questionário CPQ_{11-14}. A partir do questionário original, que consistia de 37 questões, foi possível obter quatro versões de questionários contendo 16 e 8 itens, desenvolvidos através de duas técnicas diferentes: método de impacto, originando o ISF:8 e ISF:16 e método de regressão, originando o RSF:8 e RSF:16. Segundo os autores, os instrumentos compostos por 16 itens seriam apropriados para estudos em ambientes clínicos e os instrumentos contendo 8 itens se adequariam a estudos representativos, de base populacional. Esses questionários foram desenvolvidos no Canadá, utilizando os dados dos estudos de validade e confiabilidade do CPQ_{11-14} na versão longa original. Os autores concluíram que os instrumentos apresentaram excelente validade de critério, validade do construto e coeficiente de confiabilidade. Entretanto, relataram que estes questionários deveriam ser utilizados em outros estudos, envolvendo amostras clínicas e populacionais de crianças em vários ambientes, para estabelecer medidas de sensibilidade e propriedades discriminativas.

Considerando-se que estas versões curtas do CPQ_{11-14} foram desenvolvidas e ainda não estão validadas para uso em crianças brasileiras, o presente estudo objetivou realizar a tradução e adaptação transcultural destes instrumentos para língua portuguesa (Brasil) e avaliar a confiabilidade e a validade destas versões.

ARTIGO

Psychometric properties of the Brazilian version of the *Child Perceptions Questionnaire* (CPQ_{11-14})-short forms

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Abstract

Background The need to evaluate the impact of oral health has led to the development of instruments for measuring oral health-related quality of life (OHQoL). One such instrument is the Child Perceptions Questionnaire (CPQ_{11-14}), developed specifically for 11-to-14-year-old children. As this questionnaire was considered long (37 items), shorter forms were developed with 8 (Impact Short Form: 8 - ISF:8) and 16 items (Impact Short Form: 16 - ISF:16) to facilitate use in the clinical setting and population-based health surveys. The aim of the present study was to translate and cross-culturally adapt these CPQ_{11-14} short forms for Brazilian Portuguese and evaluate the measurement properties of these versions for use on Brazilian children.

Methods: Following translation and cross-cultural adaptation, the ISF:8 and ISF:16 were tested on 136 children from 11 to 14 years of age in the city of Belo Horizonte, Brazil. The instrument was administered by a trained researcher who also performed clinical examinations. The measurement properties (i.e. criterion validity, construct validity, internal consistency reliability, test-retest reliability) were determined. Discriminant validity was tested between groups, which were divided into children with no cavities and no malocclusion; children with cavities and without malocclusion; and children with malocclusion and without cavities.

Results: The mean total score was 6.8 [standard deviation (SD) 4.2] for the ISF:8 and 1.9 [SD 7.6] for the ISF:16 ($p < 0.001$). Statistically significant associations were found between oral abnormalities and the subscales of the ISF:8 and ISF:16 ($p < 0.05$). Both test-retest stability and internal consistency, as measured by the intra-class correlation coefficient (ICC) {ISF:8=0.98 and ISF:16=0.97} and Cronbach´s alpha {ISF:8=0.70 and ISF:16=0.84} proved to be adequate. Construct validity was confirmed from the correlation between the short form scores and oral health and overall well-being ratings. The score on the short forms of the CPQ_{11-14} was able to discriminate between different oral conditions. Criterion validity was satisfactory ($p < 0.05$).

Conclusion: The Brazilian versions of CPQ_{11-14} ISF:8 and ISF:16 have satisfactory psychometric properties, similar to those of the original instrument.

Background

Little more than twenty years ago, there were no methods for assessing the impact of oral-facial problems on the daily living of individuals. The need to determine the repercussions of oral abnormalities has led to the development of instruments for measuring oral health-related quality of life, which have been used with increasing frequency in dental studies [1]. When associated to clinical data, oral health-related quality of life measures provide important information for improvements in the planning and direction of health actions. Self-perception regarding oral health status can be addressed in such a way as to encourage individuals to adopt healthy behavior [2].

A number of questionnaires for assessing the correlation between oral health and quality of life have been developed and are being cross-culturally adapted and administered in studies carried out in different countries. However, most are directed toward the adult population [1-6]. The first specific instruments for children were developed by Jokovic et al. [7,8]. These authors developed the Child Oral Health Quality of Life (COHQoL), a set of questionnaires that aim to measure the impact of oral health abnormalities on the quality of life of children between six and 14 years of age (Child Perceptions Questionnaire – CPQ) as well as their families (Family Impact Scale – FIS) and the perception of parents/caregivers regarding the oral health of their children (Parental-Caregivers Perceptions Questionnaire – P-CPQ). These instruments encompass the following subscales: oral symptoms, functional limitations, emotional wellbeing and social wellbeing. They also includes sub-subscales addressing school interaction and recreation activities. These questionnaires were developed and validated in Canada in the English language and their psychometric properties were deemed satisfactory, indicating their validity [7,8].

Cross-cultural adaptation is necessary in order to make viable the collection of information in other cultures. The CPQ_{11-14} has been tested and validated on children in New Zealand, England, Saudi Arabia and Brazil [9-15]. The original measure is made up of 37 items, but is considered long and difficult to administer in clinical settings and population-based studies [12-14]. In order to facility the applicability of the measure, Jokovic et al. [16] developed short versions of the CPQ_{11-14} for children in this age group, giving rise to the Impact Short Forms ISF:16 and ISF:8. The authors have

determined the psychometric properties of these short forms to be satisfactory, but state that these measures must be validated and employed in other cultures, involving clinical and population-based samples of children and adolescents in different countries [17].

The aim of the present study was to translate and cross-culturally adapt to Brazilian Portuguese the ISF:8 and ISF:16 measures as well as assess the reliability and validity of these versions for use on Brazilian children between 11 and 14 years of age.

Methods

Short forms of the Child Perceptions Questionnaire - ISF:8 and ISF:16

The ISF:8 and ISF:16 questionnaires are short forms of the CPQ_{11-14} developed in Canada by Jokovic et al.[16]. These short forms were developed from the inclusion of the items on the long version that obtained the highest scores, indicating a greater impact on the quality of life of children. The items address events in the previous three months. The measures are structurally composed of 8 and 16 items distributed among 4 subscales: oral symptoms, functional limitations, emotional wellbeing and social wellbeing. 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.

The authors also designed two questions asking the children for a global rating of their oral health and the extent to which their oral health affects their overall well-being [7]. These questions are: 'Would you say that the health of your teeth, lips, jaws and mouth is...?' and 'How much does the condition of your teeth, lips, jaws or mouth affect your life overall?' These global ratings had a five-point response format. The responses were scored as follows: for global rating of oral health, (0) excellent, (1) very good, (2) good, (3) fair and (4) poor; and for overall well-being, (0) not at all, (1) very little, (2) somewhat, (3) a lot and (4) very much.

The short forms of the CPQ_{11-14} scores are computed by summing the item scores. Separate scores for each of the four subscales can also be computed. As there are 16 and 8 questions, the final scores range from 0 to 64 and 0 to 32, for which a higher score denotes a greater degree of the impact of oral conditions on the quality of life.

Adaptation and translation of the CPQ $_{11–14}$ short forms

In order to measure the OHRQoL of children in Brazil, the questionnaires were subjected to translation and cross-cultural adaptation to Brazilian culture [18,19]. Based on standard recommendations, two bilingual translators with experience in translating health-related questionnaires (a Brazilian fluent in the English language and a native English speaker fluent in Portuguese) carried out two independent translations. To determine concept and item equivalence, the translated versions were analyzed by a group of specialists, who drafted synthesized versions. Attention was given to the meaning of the words in the different languages in order to obtain similar effects on respondents from different cultures, seeking to identify possible difficulties in understanding the questionnaires. These versions were then backtranslated by a bilingual translator whose native language was English and who had no access to the original versions. To assess the equivalence between the original and backtranslated questionnaires, a Brazilian translator whose native language was Portuguese and who was fluent in English carried out a third assessment between the original and backtranslated versions. Operational equivalence was determined on a sample of 37 children between 11 and 14 years of age who did not make up part of the main sample. The Brazilian versions of CPQ_{11-14} short forms achieved satisfactory concept and semantic equivalence when compared to the original instruments, proving the questionnaires could be applied for the assessment of reliability and validity of these versions on Brazilian children.

Assessment of validity and reliability of the Brazilian version of the Impact Short Forms derived from the $CPQ_{11–14}$

The study was conducted in Belo Horizonte, capital city of the state of Minas Gerais, Brazil. Data collection was carried out through the administration of the ISF:8 and ISF:16 measures in the self-applicable format to 136 male and female public school children between 11 and 14 years of age. Parents/guardians and children read and signed terms of informed consent prior to participation in the study. The study received approval from the Research Ethics Committee of the Federal University of Minas Gerais, Brazil.

Children in dental treatment during the study, those with the presence of dental trauma and those with the simultaneous presence of carious lesion and malocclusion were excluded from the study. The criteria of the World Health Organization (WHO) [20] were used for the assessment of dental caries and the Dental Aesthetic Index (DAI) [21] was used for the assessment of malocclusion.

The standardization process was carried out with 16 children for the evaluation of intra-examiner agreement regarding caries and malocclusion. Minimal and maximal Kappa values for dental caries were 0.91 and 0.94, respectively. The intra-class correlation coefficient was used for agreement on the diagnosis of malocclusion, achieving a value of 0.84.

For discriminant validity, the children were divided into three groups according to the data from the oral examination: Group 1 – children with no cavities and no malocclusion; Group 2 – children with cavities and without malocclusion; and Group 3 – children with malocclusion and without cavities.

After the clinical exam, the 136 participants filled out the first questionnaire (ISF:8) and following a 45-day interval, the same children filled out the second questionnaire (ISF:16). The data were grouped in a databank and the SPSS software program (version 15.0. SPSS Inc., Chicago, IL, USA) was used for statistical analysis. Descriptive analyses were performed (mean, standard deviation, analysis of total and individual ISF:8 and ISF:16 subscale scores) in order to generate total and subscale scores for each participant.

Reliability was assessed by tests of internal consistency and stability. The degree of homogeneity of the scale was assessed using Cronbach´s α coefficient to determine the extent of agreement between all possible subsets of questions [22]. Item/total score and inter-item score correlations were also determined.

Stability was evaluated using the test-retest approach. The intra-class correlation coefficient (ICC), with a 95% confidence interval, was calculated based on the repeated interview of a sub-sample of 86 participants chosen among those 136 that made up the main sample, using the following criteria: $\leq$ 0.40 (weak), 0.41-0.60 (moderate), 0.61-0.80 (good), 0.80-1.00 (excellent) [24].

Construct validity was analyzed through convergent validity and discriminant validity. Spearman's correlation coefficient was used to test convergent validity. Associations were analyzed between total scores and subscales scores with the oral health and well-being global indicators for both the ISF:8 and ISF:16.

Discriminant validity was tested by comparing the mean total scores on the questionnaire and subscales between the groups. As the ISF:8 and ISF:16 scores were not normally distributed, the nonparametric Kruskal-Wallis test was used to evaluate the difference in mean scores between the three groups. The level of significance was set at 0.05.

Criterion validity was obtained in order to determine whether the instruments measure the same construct. For such, the total score and subscale scores were correlated between the ISF:8 and ISF:16 questionnaires using Spearman's correlation coefficient.

Results

Among the 154 children initially selected, 136 individuals participated in the study. The remaining children were excluded for undergoing dental treatment during the study (n=4), presenting dental trauma on the examination day (n=2) and having cavities and malocclusion simultaneously (n=12). The final sample included 56 boys (41.2%) and 80 girls (58.8%), totaling 136 individuals. Mean age was 12.7 years (SD =1.1), distributed in the following manner: 25 children were 11 years old (18.4%), 32 were 12 years old (23.5%), 30 were 13 years old (22.1%) and 49 were 14 years old (36.0%). The children were divided into Group 1, 56 (41.2%) children with no cavities or malocclusion; Group 2, 34 (25.0%) children with cavities and without malocclusion; and Group 3, 46 (33.8%) children with malocclusion and without cavities.

The total ISF:8 score ranged from 0 to 18, with a mean score of 6.8 (SD = 4.2). The total ISF:16 score ranged from 0 to 38, with a mean score of 11.9 (SD =7.6). On both questionnaires, the frequency of a total score of zero was 2.9%. No child achieved the maximal possible score on either questionnaire (Table 1).

Reliability

Analysis of Cronbach's alpha coefficient revealed values near or above 0.70 for total scores, indicating satisfactory internal consistence. Subscales scores were distributed in a heterogeneous fashion on both the ISF:8 and ISF:16. Reproducibility and stability of the measures were confirmed by the ICC, demonstrating excellent correlations for the total and subscale scores on both questionnaires (Table 2).

Construct validity

The ISF:8 and ISF:16 had statistically significant, positive correlations between total and subscale scores and the global indicators oral health and well-being, with a better correlation to the *oral health* rating. The correlation between the global indicators and ISF:8 subscales was not statistically significant between the functional limitations subscale and the well-being global indicator. The remaining subscales, however, were positively correlated to the global indicators (Table 3).

Discriminant validity

Discriminant validity was determined by comparing scores between the clinical groups. Mean total scores were higher among the groups with oral abnormalities than the groups without abnormalities, revealing that the instruments were capable of clinically discriminating the different groups. Statistically significant results were obtained between the subscales of the instruments and the groups studied, except the functional limitations subscale on the ISF:8 and the *emotional* well-being subscales on both the ISF:8 and ISF:16 (Table 4).

Criterion validity

The criterion validity was obtained through the correlation of the questionnaires to one another, revealing statistically significant, positive correlations between the total and subscale scores of the two measures (Table 5).

Discussion

The ISF:8 and ISF:16 questionnaires were selected for translation and cross-cultural adaptation to the Portuguese language as well as the assessment of reliability and validity for administration to children in Brazil. A number of studies consider that measures derived from the impact method are more appropriate that those derived from

mathematical regression due to the fact that the former method selects items of greater importance – those that identify a greater impact on individuals [24-26].

The long version of the CPQ_{11-14} cross-culturally adapted to Brazilian Portuguese proved valid and reliable for its use on Brazilian children [15]. It was therefore believed that the short forms would provide greater applicability of the measure in clinical and population-based studies through the reduction in time and cost during data collection as well as a reduced risk of losses [16].

The ISF:8 and ISF:16, measures translated and cross-culturally adapted to the Portuguese language, demonstrated satisfactory internal consistency and test-retest reliability. Cronbach's alpha coefficient for the total scores revealed an adequate homogeneity of the items on the two measures (0.70 and 0.84). This finding is similar to that described during the development and validity of the original short forms (0.71 and 0.83) [16], whereas the original study on the long version of the CPQ_{11-14} achieved a value of 0.91 [7]. In subsequent validations of the long version, the results were 0.81 in Saudi Arabia [11], 0.86 in Brazil [15] and 0.89 in China [13].

Cronbach's alpha coefficient ranged from 0.32 to 0.71 for the ISF:8 subscales and from 0.50 to 0.70 for the ISF:16 subscales. These results are heterogeneous, but higher than those obtained by Jokovic et al. [16] (0.31 to 0.47 for ISF:8 and 0.30 to 0.57 for ISF:16). The authors state that the heterogeneous values of internal consistency among the subscales may be related to the small number of items that make up the questionnaires. A small number of items on a questionnaire can also affect its content validity. Even when relevance remains intact, the construct validity may be compromised due to the omission of individual problems [16, 26]. In the present study, the short forms achieved acceptable construct validity, demonstrating a positive correlation between the global indicators and total score on the ISF:8 and ISF:16. Jokovic et al. [16] found correlations of 0.19 and 0.39 between total score and the global indicators for the ISF:8 and correlations of 0.21 and 0.40 for the ISF:16, which are similar to the findings of the present study. However, the measures were better correlated with the oral health indicator in the present study than the well-being indicator. This is the opposite from what occurred in the original study on the short

forms [16] and the Brazilian study on the long form [15], whereas this finding is similar to that described in the long-form validation study carried out in Saudi Arabia [11].

Statistically significant associations were found between the ISF:8 subscales and the oral health and general well-being indicators. However, the association between the functional limitations subscale and the well-being indicator were not statistically significant. A large portion of the children, even those without cavities, reported difficulty in eating/drinking hot or cold foods and beverages. As the study was carried out at a school, it was not possible to detect conditions that could only be visualized radiographically. All associations between the ISF:16 subscales and the global indicators oral health and well-being were statistically significant.

To confirm discriminant validity, the mean total ISF:8 and ISF:16 scores were determined. The results were similar to those described by Jokovic et al. [16], demonstrating that children with oral health abnormalities achieved higher mean total scores on each questionnaire, which signifies the greater impact of these conditions on the quality of life of these individuals. Inverted results were found between the Brazilian versions of the ISF:8 and ISF:16 in the comparison of the groups with carious lesions (Group 2), malocclusion (Group 3) and the group without these conditions (Group 1). On the ISF:8, the mean total score for Group 2 was greater than that of Group 3, whereas the opposite occurred with ISF:16. This finding is likely due to the small number of items on ISF:8. Regarding the analysis of the subscales taken separately, no statistically significant association was found between the groups and the functional limitations and emotional well-being subscales on either the ISF:8 or ISF:16. The remaining subscales had the same tendency as the total score, achieving significantly higher mean values in the groups with oral abnormalities.

As the short versions of the CPQ_{11-14} were only developed recently, the comparison of the results obtained in the present study is hindered by the lack of studies that have validated and administered the ISF:8 and ISF:16. Therefore, the results were compared to the data from the cross-cultural validations of the long form, including the Brazilian version.

The criterion validity revealed a statistically significant, positive association between total score (0.47) and subscale scores on the two measures: 0.25 to 0.44 ($p <$

0.001), suggesting that the instruments measure the same construct (Table 5). In the study by Jokovic et al. [16], the short forms were strongly correlated with the long form, with results ranging from 0.87 to 0.96 ($p < 0.001$), indicating that the short forms can be used to substitute the long form of the CPQ_{11-14}. Although the Brazilian version of both short forms (ISF:8 and ISF:16) exhibited satisfactory psychometric properties, the ISF:16 had a better performance than the ISF:8, which is likely due to the small number of items on the ISF:8.

The reduction in the size of questionnaires that correlate oral health and quality of life is fundamental, as it facilitates their use in detecting repercussions stemming from oral health status on quality of life in population-based studies. The results of the present study provide evidence of the satisfactory properties of reliability, construct validity and discriminant validity of the Brazilian version of the short forms of the Child Perceptions Questionnaire for children between 11 and 14 years of age, thereby demonstrating their applicability in this population.

Conclusion

The Brazilian versions of the short forms of the CPQ_{11-14} (ISF:8 and ISF:16) demonstrated acceptable reliability and validity, thereby confirming the applicability of these measures on Brazilian children between 11 and 14 years of age. The psychometric properties were found to be satisfactory. However, further research is necessary for the confirmation of these properties in other populations and settings.

Abbreviations

OHRQoL: Oral Health-Related Quality of Life;

CPQ: Child Perceptions Questionnaire

ISF: Impact Short Form

ICC: Intra-class Correlation Coefficient

COHQoL: Child Oral Health Quality of Life Questionnaire

FIS: Family Impact Scale

P-CPQ: Parental-Caregiver Perceptions Questionnaire

WHO: World Health Organization

DAI: Dental Aesthetic Index

SPSS: Statistical Package for Social Sciences

Competing interests

The author(s) declare that they have no competing interests.

Authors' contributions

CST, SMP, MPV, IAP and PJA conceptualized and designed the study. CST, MLRJ, ACO contributed to the collection of data, statistical analysis and interpretation of the data. CST, MLRJ and SMP conducted the literature review and drafted the manuscript. All authors read and approved the final manuscript.

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Table1: Descriptive statistics for the CPQ_{11-14} short forms ISF:8 and ISF:16 (n=136)

Short-Forms:	Range of possible values	Mean (SD)	Range of scores	% with score of 0	% with max score
ISF:8	0 - 32	6.8 (4.2)	0 - 18	2.9	0.0
ISF:16	0 - 64	11.9 (7.6)	0 - 38	2.9	0.0

Table 2: Reliability statistics for total scale and subscales: Short Forms of the CPQ_{11-14} ISF:8 and ISF:16 (n=136)

Variable	Number of items	Cronbach's alpha (n = 136)	Intraclass correlation coefficient (95% CI)* (n = 86)
Total scale			
ISF:8	8	0.70	0.98 (0.97-0.99)
ISF:16	16	0.84	0.97(0.94-0.97)
Subscale			
Oral Symptoms			
ISF:8	2	0.40	0.98(0.96-0.98)
ISF:16	4	0.63	0.93(0.89-0.95)
Functional limitations			
ISF:8	2	0.41	0.96(0.95-0.98)
ISF:16	4	0.50	0.94(0.91-0.96)
Emotional well-being			
ISF:8	2	0.71	0.99(0.98-0.99)
ISF:16	4	0.70	0.96(0.93-0.97)
Social well-being			
ISF:8	2	0.32	0.99(0.93-0.99)
ISF:16	4	0.68	0.95(0.92-0.96)

* Two-way random effect model: $p < 0.001$ for all values

Table 3: Construct validity: rank correlations between total scale and subscale scores, and global rating of oral health and overall wellbeing on ISF:8 and ISF:16 (n=136)

	Global rating			
	Oral health		**Overall wellbeing**	
	r *	p-value	r *	p-value
Total scale				
ISF:8	0.47	<0.001	0.32	<0.001
ISF:16	0.49	<0.001	0.33	<0.001
Subscale		<0.001		
Oral Symptoms		<0.001		
ISF:8	0.35	<0.001	0.37	<0.001
ISF:16	0.53	<0.001	0.27	<0.001
Functional limitations		<0.001		
ISF:8	0.31	<0.001	0.09	0.26
ISF:16	0.35	<0.001	0.20	0.02
Emotional well-being		<0.001		
ISF:8	0.35	<0.001	0.31	<0.001
ISF:16	0.40	<0.001	0.34	<0.001
Social well-being		<0.001		<0.001
ISF:8	0.35	<0.001	0.17	<0.001
ISF:16	0.28	<0.001	0.29	<0.001

* Spearman's correlation coefficient

Table 4: Discriminant validity of the ISF:8 and ISF:16: overall and subscale scores for children with no cavities or malocclusion (Group 1); with cavities and without malocclusion (Group 2); and with malocclusion and without cavities (Group 3) (n=136)

	Group 1 (n=56)		Group 2 (n=34)		Group 3 (n=46)		p-value*
	mean ± SD	median	mean ± SD	median	mean ± SD	median	
Total scale							
ISF:8	5.66 ±3.73	5.00	8.50 ±4.61	8.00	6.93 ±4.23	6.00	<0.001
ISF:16	9.63 ±7.78	7.00	12.94 ±5.55	13.00	13.98 ±8,.4	12.00	<0.001
Subscale Oral Symptoms							
ISF:8	2.07 ±1.33	2.00	3.09 ±1.24	3.00	2.15 ±1.60	2.00	<0.001
ISF:16	3.43 ±2.45	3.00	5.18 ±2.02	5.50	4.28 ±2.50	4.00	<0.001
Functional limitations							
ISF:8	1.80 ±1.86	1.00	2.59 ±1.87	2.50	1.74 ±1.58	2.00	0,06
ISF:16	2.70 ±2.52	2.00	3.68 ±1.99	3.00	3.78 ±2.40	4.00	0,01
Emotional well-being							
ISF:8	1.02 ±1.43	0.00	1.47 ±1.46	1.00	1.13 ±1.37	1.00	0,22
ISF:16	2,16 ±2,36	2.00	2.68 ±2.40	2.00	3.15 ±2.54	2.50	0,07
Social well-being							
ISF:8	0.77 ±0.99	0.00	1.35 ±1.39	1.00	1.91 ±1.50	2.00	<0.001
ISF:16	1.34 ±2.20	0.00	1.41 ±1.37	1.00	2.76 ±2.56	2.00	<0.001

*p-values obtained from Kruskal-Wallis test

Table 5: Criterion validity – rank correlations between scores on the ISF:8 and ISF:16 (n=136)

ISF:8	ISF:16 r*	p
Total scale	0.47	<0.001
Subscales		
Oral Symptoms	0.44	<0.001
Functional limitations	0.45	<0.001
Emotional well-being	0.25	<0.001
Social well-being	0.37	<0.001

* Spearman's correlation coefficient

CONSIDERAÇÕES FINAIS

A maior parte das medidas de autopercepção de saúde bucal foi desenvolvida nos países de língua inglesa, e suas medidas podem estar sujeitas à influência da cultura e dos conceitos de saúde prevalentes nestes países. Em conseqüência, alguns itens podem referir emoções e atitudes pouco freqüentes em outras culturas. Assim sendo, a aplicação de um instrumento de medição de saúde em ambientes socioculturais distintos daquele que foi desenvolvido pressupõe um processo prévio de adaptação transcultural, necessária para permitir uma interpretação adequada dos resultados aferidos para a população alvo. Os instrumentos que visam medir a qualidade de vida necessitam ser validados para depois serem aplicados a outras populações, adequando-se à cultura que se quer avaliar e sempre mantendo o contexto do instrumento original. Preenchidos esses requisitos, o instrumento estará apto a ser aplicado à outra população, podendo fornecer dados representativos da comunidade escolhida (Guillemin et al., 1993; Herdman *et al*., 1998).

A ampla utilização dos instrumentos de autopercepção de saúde bucal se justifica pelo fato de que quanto mais um instrumento tem as suas propriedades psicométricas confirmadas, sendo submetido a diversas populações e situações diferentes, maior é a confiança e a validade dos resultados obtidos a partir de sua aplicação.

Além disso, os questionários de saúde são bastante úteis tanto na pesquisa epidemiológica quanto na prática clínica. Investigam fatores de risco e prognósticos para as doenças e avaliam o impacto de intervenções destinadas a melhorar as condições de saúde dos indivíduos e populações. Na prática clínica, contribuem para seleção de tratamentos apropriados e para avaliação de resultados de terapias instituídas, além do estabelecimento de prioridades e no planejamento de ações de educação em saúde.

Os questionários são instrumentos de coleta de dados e o seu uso deve ser cuidadoso. O pesquisador deve ter certeza de que está avaliando o que realmente está se propondo a avaliar e que fornece medidas constantes ao longo do tempo e sob diferentes circunstâncias, quando não houver modificações no objeto que está sendo estudado. O instrumento deve ser simples, compreensível e sensível às alterações do atributo que ele propõe medir. Deve ser reproduzível, capaz de identificar grupos específicos, ter baixo

custo na aplicação e ser coerente para os envolvidos tanto em programas de saúde quanto para os pesquisadores (Leão e Locker, 2005).

Pensando nisso, o presente estudo objetivou traduzir e adaptar transculturalmente as versões curtas do CPQ_{11-14} para língua portuguesa, visando à análise da validade e da confiabilidade desses instrumentos para aplicação em crianças e adolescentes brasileiros. A metodologia foi desenvolvida de acordo com o método científico estabelecido para estudos de validação, assim como os estudos originais do CPQ_{11-14}, tanto da versão longa quanto das versões curtas desenvolvidas por Jokovic *et al*. (2002; 2006). Os resultados obtidos foram satisfatórios, possibilitando a produção das formas curtas da versão brasileira do CPQ_{11-14} com propriedades psicométricas favoráveis ao uso desses instrumentos no Brasil.

Considerando-se o valor adicional que a utilização destes questionários representa através do conhecimento sistemático das conseqüências das doenças, o desenvolvimento e aplicação destes instrumentos se tornam fundamentais. Além de serem associados a dados clínicos para o planejamento de ações em saúde, podem fornecer informações importantes sobre o entendimento da saúde e de comportamentos individuais e coletivos. Isto pode gerar uma maior compreensão por parte dos indivíduos e populações sobre a importância da saúde bucal, integrada à saúde geral, levando assim à conquista de uma melhor qualidade de vida.

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APÊNDICES

APÊNDICE A

TERMO DE CONSENTIMENTO LIVRE E ESCLARECIDO
PAIS/RESPONSÁVEIS

Prezada mãe ou responsável, esta pesquisa busca avaliar se as doenças da boca e da face interferem com a qualidade de vida de seu filho(a).

Entretanto, para que possamos desenvolver esta pesquisa será necessário que seu filho(a) responda a um questionário, que será aplicado por um dentista na escola em que ele(a) estuda. O dentista fará algumas perguntas com relação à saúde e às atividades diárias que ele(a) pratica, bem como a relação da saúde de seu filho(a) com as atividades diárias da família. Será realizado também um exame clínico odontológico em seu filho(a), na própria escola. Neste exame será observado se seu filho(a) apresenta cáries, problemas na posição dos dentes e na face. Este exame não provocará nenhum incômodo a seu filho(a) e não apresenta riscos. Este exame clínico será realizado com o uso de espelhos bucais, espátula de madeira e sondas IPC. O dentista que fará o exame estará usando luvas descartáveis, máscara para exame, avental, gorro e óculos de proteção individual. Os resultados desta pesquisa serão muito importantes para que possamos melhorar qualidade dos serviços de atendimento odontológico, de forma que estes possam atender às reais necessidades de tratamento dos adolescentes.

Nós asseguramos que nenhum adolescente ou responsável serão identificados, sendo mantido o caráter confidencial da informação, de modo que seus nomes não serão identificados. Gostaríamos de informar também que se você quiser desistir da pesquisa poderá fazê-lo a qualquer momento, sem prejuízo para a continuidade do tratamento dentário.

Você não vai pagar por nada que está sendo realizado. Se tiver dúvidas, pode entrar em contato com o pesquisador, através do telefone: 31 3482-5104/ 31 8634-5031 ou entrar em contato com o Comitê de Ética em Pesquisa desta Universidade pelo telefone: 31 3409-4592.

De posse dos esclarecimentos sobre os objetivos, riscos e benefícios da pesquisa concordo em participar deste estudo e consinto que seja realizado exame clínico em meu filho(a), _____, bem como, que este responda ao questionário. Autorizo também que os dados obtidos através do exame clínico e das respostas aos questionários sejam apresentados e publicados em eventos e artigos científicos.

Belo Horizonte, ____ de _____ de _____.

_____

Nome responsável pelo adolescente_____

Cíntia Silva Torres_____

Pesquisadora

APÊNDICE B

TERMO DE CONSENTIMENTO LIVRE E ESCLARECIDO
ADOLESCENTES

Prezado adolescente, esta pesquisa busca avaliar se as doenças da boca e da face interferem com a sua qualidade de vida.

Entretanto, para que possamos desenvolver esta pesquisa será necessário que você responda a um questionário, que será aplicado por um dentista na escola em que estuda. O dentista fará algumas perguntas com relação à sua saúde e às atividades diárias que pratica, bem como a relação da sua saúde com as atividades diárias da sua família. O dentista realizará um exame da sua boca e seus dentes. Neste exame será observado se você apresenta cáries, problemas na posição dos dentes e na face. Este exame não provocará nenhum incômodo e não apresenta riscos. Este exame clínico será realizado com o uso de espelhos bucais, espátula de madeira e sondas IPC. O dentista que fará o exame estará usando luvas descartáveis, máscara para exame, avental, gorro e óculos de proteção individual. Os resultados desta pesquisa serão muito importantes para que possamos melhorar qualidade dos serviços de atendimento odontológico, de forma que estes possam atender às reais necessidades de tratamento dos adolescentes.

Nós asseguramos que nenhum adolescente ou responsável serão identificados, sendo mantido o caráter confidencial da informação, de modo que seus nomes não serão identificados. Gostaríamos de informar também que se você quiser desistir da pesquisa poderá fazê-lo a qualquer momento, sem prejuízo para a continuidade do tratamento dentário.

Você não vai pagar por nada que está sendo realizado. Se tiver dúvidas, pode entrar em contato com o pesquisador, através do telefone: 31 3482-5104/ 31 86345031 ou entrar em contato com o Comitê de Ética em Pesquisa desta Universidade pelo telefone: 31 3409-4592.

De posse dos esclarecimentos sobre os objetivos, riscos e benefícios da pesquisa concordo em participar deste estudo e consinto que seja realizado exame clínico, bem como, o preenchimento do questionário. Autorizo também que os dados obtidos através do exame clínico e das respostas aos questionários sejam apresentados e publicados em eventos e artigos científicos.

Belo Horizonte, ____ de _____ de _____.

_____

Nome adolescente

_____

Cíntia Silva Torres
Pesquisadora

APÊNDICE C

AUTORIZAÇÃO INSTITUIÇÃO DE ENSINO

Autorização

Autorizo a realização do estudo Validação das versões curtas do *Child Perceptions Questionnaire* 11-14 (CPQ $_{11\text{-}14}$) na Escola Estadual José Bonifácio, tendo como responsável Cíntia Silva Torres, aluna de Mestrado em Odontopediatria da Faculdade de Odontologia da UFMG. A participação de crianças e adolescentes será voluntária, com autorização dos pais ou responsáveis, através da assinatura do Termo de Consentimento Livre e Esclarecido.

Belo Horizonte, 26 de junho de 2007

Diretora da Escola Estadual José Bonifácio

APÊNDICE D

FICHA CLÍNICA

Aluno:_____

Data de nascimento:____/____/____ Idade: _____ anos

Telefone_____

Sexo: Masculino ( ) Feminino ( ) Data do exame: ____/___/____

ODONTOGRAMA

(OMS, 1999)

55	**54**	**53**	**52**	**51**	**61**	**62**	**63**	**64**	**65**
85	**84**	**83**	**82**	**81**	**71**	**72**	**73**	**74**	**75**

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 (2) dente restaurado com cárie (3) dente restaurado sem cárie (4) dente perdido por cárie (5) ausente (6) selante de fissura (7) dente suporte de prótese, coroa protética ou faceta (8) não erupcionado (T) traumatismo (9) não registrado

Índice de Estética Dental (IED)

1.Número de dentes ausentes na arcada superior e inferior ---------- ☐

2.Apinhamento anterior

(0- sem apinhamento, 1- um segmento apinhado, 2- dois segmentos apinhados) ☐

3.Espaçamento anterior: ---------- ☐

(0-sem espaçamento, 1- um segmento espaçado, 2- dois segmentos espaçados)

4.Diastema incisal em mm: ---------- ☐

5.Maior irregularidade anterior superior em mm:---------- ☐

6.Maior irregularidade anterior inferior em mm:---------- ☐

7.Sobressaliência superior anterior em mm:---------- ☐

8.Sobressaliência inferior anterior em mm:---------- ☐

9.Mordida aberta anterior vertical em mm:---------- ☐

10.Relação molar antero-posterior(0- normal, 1- meia cúspide, 2- uma cúspide):---------- ☐

Mordida cruzada posterior (0- ausente, 1- presente)---------- ☐

Mordida cruzada posterior presente(1-esquerda, 2-direita,3- bilateral)-------- ☐

APÊNDICE E

VERSÃO BRASILEIRA DO ISF:8

QUESTIONÁRIO DE SAÚDE BUCAL

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

Este estudo está sendo realizado para compreender melhor os problemas causados por seus dentes, boca, lábios e maxilares. Respondendo a 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 ORAIS

Nos últimos 3 meses, com que freqüência você teve?

1. Mau hálito?

( ) Nunca

( ) Uma ou duas vezes

( ) Algumas vezes

( ) Freqüentemente

( )Todos os dias ou quase todos os dias

2. Restos de alimentos presos dentro 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:

3. 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

4. Dificuldade 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”.

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

( ) Nunca

( ) Uma ou duas vezes

( ) Algumas vezes

( ) Freqüentemente

( )Todos os dias ou quase todos os dias

6. Ficou chateado?

( ) 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:

7. 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

8. 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

PRONTO, TERMINOU!

Para saber se este questionário foi adequado para nos fornecer as informações de que precisamos, gostaríamos que um grupo de crianças o respondesse novamente. Você responderia novamente ao questionário daqui a duas semanas?

( ) Sim ( ) Não

OBRIGADO POR NOS AJUDAR!

APÊNDICE F
VERSÃO BRASILEIRA DO 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 causados por seus dentes, boca, lábios e maxilares. Respondendo a 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 dentro 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

PRONTO, TERMINOU!

Mais uma coisinha: para saber se este questionário foi bom para nos fornecer as informações de que precisamos, gostaríamos que um grupo de crianças o respondesse novamente. Você estaria disposto a ajudar a responder outro questionário em breve?

( ) Sim ( ) Não

OBRIGADO POR NOS AJUDAR!

ANEXOS

ANEXO A
AUTORIZAÇÃO COEP

ANEXO B

CHILD ORAL HEALTH QUESTIONNAIRE ISF:8

HELLO,

Thans 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

Are you a boy or girl?

( ) Boy
( ) Girl

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

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

( ) excelent
( ) very good
( ) good
( ) fair
( ) poor

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

( ) not at all
( ) very little
( ) somewhat
( ) at lot
( ) very much

QUESTIONS ABOUT ORAL PROBLEMS

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

1. Bad breath?

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

2. 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?

3. 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

4. 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?

5. Felt irritable or frustrade?

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

6. Been upset?

( ) 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".

7. Avoid smiling or laughing when around other children?

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

8. Argued with other children or your family?

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

THERE, IT'S FINISHED!

Just one more thing. To test how good this questionnaire is at giving us the information we need, we would like a group of children to complet it again.

Would you be willing to help us by complkting another copy of the questionnaire soon? We would mail it you in the next 2 weeks.

YES ☐

ANEXO C

CHILD ORAL HEALTH QUESTIONNAIRE ISF:16

HELLO,

Thans 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

Are you a boy or girl?

( ) Boy
( ) Girl

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

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

( ) excelent
( ) very good
( ) good
( ) fair
( ) poor

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

( ) not at all
( ) very little
( ) somewhat
( ) at lot
( ) very much

QUESTIONS ABOUT ORAL PROBLEMS

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

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

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

2. Sores in your mouth?

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

3. Bad breath?

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

4. 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?

5. Taken longer than others to eat a meal?

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

In the past 3 months, because of your teeth, lips, mouth or jaws?

6. 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

7. Difficult to say any words?

( ) never
( ) once or twice
( ) sometimes
( ) often
( ) every or almost every day
8. 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?

9. Felt irritable or frustrade?

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

10. Felt shy?

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

11. Been upset?

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

12. 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”.

13. Avoid smiling or laughing when around other children?

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

14. Argued with other children or your family?

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

15. Other children teased or called names because of your teeth, lips, jaws or mouth?
( ) never
( ) once or twice
( ) sometimes
( ) often
( ) every or almost every day

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

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

THERE, IT’S FINISHED!

Just one more thing. To test how good this questionnaire is at giving us the information we need, we would like a group of children to complet it again.

Would you be willing to help us by complkting another copy of the questionnaire soon? We would mail it you in the next 2 weeks.

YES ☐

THANK YOU FOR HELPING US!!!

ANEXO D

NORMAS DE PUBLICAÇÃO DO PERIÓDICO
HEALTH AND QUALITY OF LIFE OUTCOMES

Preparing main manuscript text

File formats

The following word processor file formats are acceptable for the main manuscript document:

- Microsoft Word (version 2 and above)
- WordPerfect (version 5 and above)
- Rich text format (RTF)
- Portable document format (PDF)
- TeX/LaTeX (use BioMed Central's TeX template)
- DeVice Independent format (DVI)
- Publicon Document (NB)

Users of other word processing packages should save or convert their files to RTF before uploading. Many free tools are available which ease this process.

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When submitting your manuscript, you will be asked to assign one of the following types to your article:

Research

Commentary

Letter to the Editor

Review

Please read the descriptions of each of the article types, choose which is appropriate for your article and structure it accordingly. If in doubt, your manuscript should be classified as Research, the structure for which is described below.

Manuscript sections for Research articles

Manuscripts for Research articles submitted to *Health and Quality of Life Outcomes* should be divided into the following sections:

- Title page
- Abstract
- Background
- Methods
- Results
- Discussion
- Conclusions
- List of abbreviations used (if any)
- Competing interests
- Authors' contributions
- Authors' information (if any)
- Acknowledgements
- References
- Figure legends (if any)
- Tables and captions (if any)
- Description of additional data files (if any)

You can download a template (Mac and Windows compatible; Microsoft Word 98/2000) for your article. For instructions on use, see below.

The **Accession Numbers** of any nucleic acid sequences, protein sequences or atomic coordinates cited in the manuscript should be provided, in square brackets and include the corresponding database name; for example, [EMBL:AB026295, EMBL:AC137000, DDBJ:AE000812, GenBank:U49845, PDB:1BFM, Swiss-Prot:Q96KQ7, PIR:S66116].

The databases for which we can provide direct links are: EMBL Nucleotide Sequence Database (EMBL), DNA Data Bank of Japan (DDBJ), GenBank at the NCBI (GenBank), Protein Data Bank (PDB), Protein Information Resource (PIR) and the Swiss-Prot Protein Database (Swiss-Prot).

Title page

This should list the title of the article. The title should include the study design, for example:

A versus B in the treatment of C: a randomized controlled trial

X is a risk factor for Y: a case control study

The full names, institutional addresses, and e-mail addresses for all authors must be included on the title page. The corresponding author should also be indicated.

Abstract
The abstract of the manuscript should not exceed 350 words and must be structured into separate sections: **Background**, the context and purpose of the study; **Methods**, how the study was performed and statistical tests used; **Results**, the main findings; **Conclusions**, brief summary and potential implications. Please minimize the use of abbreviations and do not cite references in the abstract; **Trial registration**, if your research article reports the results of a controlled health care intervention, please list your trial registry, along with the unique identifying number, e.g. **Trial registration**: Current Controlled Trials ISRCTN73824458. Please note that there should be no space between the letters and numbers of your trial registration number.

Background
The background section should be written from the standpoint of researchers without specialist knowledge in that area and must clearly state - and, if helpful, illustrate - the background to the research and its aims. Reports of clinical research should, where appropriate, include a summary of a search of the literature to indicate why this study was necessary and what it aimed to contribute to the field. The section should end with a very brief statement of what is being reported in the article.

Methods
This should include the design of the study, the setting, the type of participants or materials involved, a clear description of all interventions and comparisons, and the type of analysis used, including a power calculation if appropriate.

Results and Discussion
The Results and Discussion may be combined into a single section or presented separately. Results of statistical analysis should include, where appropriate, relative and absolute risks or risk reductions, and confidence intervals. The results and discussion sections may also be broken into subsections with short, informative headings.

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This should state clearly the main conclusions of the research and give a clear explanation of their importance and relevance. Summary illustrations may be included.

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In order to give appropriate credit to each author of a paper, the individual contributions of authors to the manuscript should be specified in this section.

We suggest the following kind of format (please use initials to refer to each author's contribution): AB carried out the molecular genetic studies, participated in the sequence alignment and drafted the manuscript. JY carried out the immunoassays. MT participated in the sequence alignment. ES participated in the design of the study and performed the statistical analysis. FG conceived of the study, and participated in its design and coordination and helped to draft the manuscript. All authors read and approved the final manuscript.

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Article within a journal

1.Koonin EV, Altschul SF, Bork P: **BRCA1 protein products: functional motifs.** *Nat Genet* 1996, **13:**266-267.

Article within a journal supplement
2. Orengo CA, Bray JE, Hubbard T, LoConte L, Sillitoe I: **Analysis and assessment of ab initio three-dimensional prediction, secondary structure, and contacts prediction.** *Proteins* 1999, **43**(Suppl 3):149-170.

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9. Margulis L: *Origin of Eukaryotic Cells.* New Haven: Yale University Press; 1970.

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11. Advisory Committee on Genetic Modification: *Annual Report.* London; 1999.

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12. Kohavi R: **Wrappers for performance enhancement and oblivious decision graphs.** *PhD thesis.* Stanford University, Computer Science Department; 1995.