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**IMPACTO DO TRATAMENTO ODONTOLÓGICO NA QUALIDADE
DE VIDA RELACIONADA À SAÚDE BUCAL DE ADOLESCENTES:
UMA ABORDAGEM QUANTITATIVA E QUALITATIVA**

Dissertação de mestrado

Santa Maria, RS

2017

Marília Cunha Maroneze

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Orientador: Prof. Dr. Thiago Machado Ardenghi

Coorientadora: Prof. Dra. Beatriz Unfer

Santa Maria, RS

2017

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QUANTITATIVA E QUALITATIVA**

Projeto apresentado ao Curso de Mestrado do Programa de Pós-Graduação em Ciências Odontológicas, Área de Concentração em Odontologia, ênfase em Odontopediatria, da Universidade Federal de Santa Maria (UFSM, RS), como requisito parcial para obtenção do grau de **Mestre em Ciências Odontológicas**.

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Aprovado em 31 de julho de 2017:

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Santa Maria, RS
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**“ Life is all about making choices.
Always do your best to make the
right ones, and always do your best
to learn from the wrong ones.”**

Autor desconhecido

RESUMO

IMPACTO DO TRATAMENTO ODONTOLÓGICO NA QUALIDADE DE VIDA RELACIONADA À SAÚDE BUCAL DE ADOLESCENTES: UMA ABORDAGEM QUANTITATIVA E QUALITATIVA

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A avaliação do impacto do tratamento dentário em adolescentes deve utilizar medidas que sejam capazes de quantificar e entender os aspectos orais, sociais, funcionais e relacionados ao bem estar emocional percebido pelos próprios pacientes. Além disso, deve ser capaz de compreender como as intervenções odontológicas podem alterar o cotidiano e a qualidade de vida relacionada à saúde bucal desses indivíduos. O objetivo dessa pesquisa foi avaliar e compreender qual é o impacto do tratamento odontológico na qualidade de vida relacionada à saúde bucal (OHRQoL) de adolescentes, utilizando um estudo de métodos mistos sequencial explanatório. Uma amostra de indivíduos de 11 a 15 anos de idade que finalizou seu tratamento odontológico na clínica de Adolescentes da Universidade Federal de Santa Maria no período de 2010 a 2016 foi incluída neste estudo. Informações socioeconômicas e relativas aos tratamentos realizados foram coletadas através de questionários auto-aplicados e ficha clínica dos pacientes. Na fase quantitativa, os indivíduos responderam ao questionário de qualidade de vida, *Child Perception Questionnaire* 11-14 (versão reduzida), em dois momentos: previamente a realização do tratamento odontológico e um mês após o término do mesmo. As diferenças de médias dos escores antes e depois do tratamento foram comparadas utilizando teste-t pareado e cálculo do tamanho de efeito. A avaliação qualitativa foi realizada após o término do tratamento odontológico por meio de perguntas semiestruturadas realizadas de forma flexível, utilizando-se um gravador de áudio, baseadas nas dimensões do CPQ e das respostas obtidas durante o estudo piloto. As entrevistas foram realizadas até a obtenção da saturação dos dados e as falas foram transcritas segundo a análise temática proposta por Braun and Clarke. Um total de 182 adolescentes participou do estudo. Os tamanhos de efeitos variaram de 0,35 (pequeno) a 1,00 (largo), sendo o domínio sintomas orais o que apresentou maior efeito. Na fase qualitativa, foram realizadas 16 entrevistas e cinco temas foram extraídos das entrevistas: conceito de qualidade de vida, percepção de saúde bucal, procura do serviço e implicações dos problemas orais no cotidiano dos adolescentes, ambiente não suportivo e ambiente suportivo. A integração dos resultados demonstrou que após o tratamento os adolescentes pararam de relatar problemas orais e funcionais e que houve um aumento na autoestima e no seu bem estar social. Portanto, intervenções odontológicas devem ser incentivadas na adolescência, pois elas são capazes de melhorar o OHRQoL desses indivíduos.

Palavras-chave: Adolescentes. Qualidade de vida relacionada à saúde bucal. Tratamento odontológico

ABSTRACT

IMPACT OF DENTAL TREATMENT IN THE ORAL HEALTH RELATED QUALITY OF LIFE OF ADOLESCENTS: A QUANTITATIVE AND QUALITATIVE APPROACH

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ADVISOR: Thiago Machado Ardenghi
CO-ADVISOR: Beatriz Unfer

The assessment of the impact of dental treatment on adolescents must include measures that are capable of quantifying and understand the subjective functional, social, and emotional well-being aspects reported by the patients. It also must be able to comprise how oral interventions can modify the daily life and the oral health related quality of life (OHRQoL) of these individuals. The aim of this study was to evaluate and understand the impact of dental treatment on the oral health related quality of life (OHRQoL) of adolescents, using a sequential mixed methods design. A sample of individuals aged 11 to 15 years-old who finished their dental treatment in the Adolescent Dental Clinic of the Federal University of Santa Maria from 2010 to 2016 were included in this study. Socioeconomic and treatment information were collected through self-administered questionnaires and clinical records of each patient, respectively. In the quantitative phase the individuals answered the short form of the *Child Perception Questionnaire* 11-14 in two moments: before the beginning of the dental treatment and one month after the conclusion of the treatment. Paired t-tests were used and the effect size was calculated to assess the statistical significance and the magnitude of change. The qualitative evaluation was performed only after the end of the dental treatment through semi-structured questions performed flexibly, using an audio recorder, based on the dimensions of the CPQ and the answers obtained during the pilot study. The number of interviews was determined by saturation procedures and the reports were analyzed according to thematic analysis following Braun and Clarke. A total of 182 adolescents participated in the study. The effects sizes ranged from 0.35 (small) to 1.00 (large) and the oral symptoms domain presented the greatest effect. Sixteen interviews were conducted in the qualitative phase and five themes emerged from the interviews: concept of quality of life, perception of oral health, the search of service, implications of oral problems in adolescents' daily life, non-supportive environment and supportive environment. The integration of the results showed that after dental treatment the adolescents stopped reporting oral and functional problems and there was an increase in their self-esteem and their social well-being. Therefore, dental interventions should be encouraged in the adolescence because they are able to improve the OHRQoL of these individuals.

Keywords: Adolescents. Dental treatment. Oral health related quality of life.

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1 INTRODUÇÃO

A nova definição de saúde bucal proposta pela Federação Dentária Internacional estabelece que a saúde oral é multifacetada e envolve a capacidade de falar, sorrir, cheirar, sentir, tocar, degustar, mastigar e engolir com confiança, sem dor ou desconfortos (WORLD DENTAL FEDERATION, 2016). Os valores, atitudes, experiências, percepções, expectativas e a habilidade em se adaptar a diferentes tipos de circunstâncias também influenciam na saúde bucal de um indivíduo (WORLD DENTAL FEDERATION, 2016). Nesse novo conceito, a saúde bucal abrange os aspectos fisiológicos, sociais e psicológicos do indivíduo que são fatores essenciais para a sua qualidade de vida (WORLD DENTAL FEDERATION, 2016).

Qualidade de vida representa um conceito complexo, pois envolve questões subjetivas e multidimensionais relacionadas com a auto percepção do indivíduo sobre a sua posição social, cultural, seus valores, metas, expectativas, padrões e preocupações (GROUP, 1995).

Qualidade de vida relacionada à saúde bucal (OHRQoL) está ligada ao conceito geral de qualidade de vida, sendo um constructo multidimensional, ou seja, é um termo construído através de uma teoria que está relacionado ao impacto da auto percepção de cada indivíduo sobre a sua condição de saúde bucal (BAKER, 2007). A OHRQoL pode sofrer influência de variáveis clínicas, individuais e psicossociais (PETERSON, 2003 ;SCHUCH et al, 2015).

A OHRQoL é parte integrante da saúde geral e do bem-estar do indivíduo e atualmente a Organização Mundial de Saúde (OMS) também reconhece a importância dessa medida dentro de um Programa de Saúde Bucal Mundial (SISCHO;BRODER, 2011). Além disso, essa medida tem sido utilizada amplamente por profissionais da saúde como uma ferramenta de avaliação na prática clínica, na realização de pesquisas e na avaliação da efetividade dos tratamentos odontológicos (SISCHO;BRODER, 2011).

Vários questionários têm sido desenvolvidos mundialmente para avaliar quantitativamente o impacto das condições de saúde bucal na qualidade de vida de adolescentes. Esses questionários foram baseados no modelo teórico proposto por Locker que mostra que a relação entre saúde e doença é indireta, ou seja, deficiência não necessariamente leva a incapacidade (LOCKER, 1988). Esse modelo também foi baseado na classificação Internacional de Deficiência, Incapacidade e Desvantagem Social (WHO, 1980) e segundo Locker na avaliação da saúde geral ou bucal de um indivíduo deve-se considerar os aspectos sociais, psicológicos e funcionais e não apenas os fatores clínicos, já que todos são norteadores do conceito de qualidade de vida (LOCKER, 1988).

Entre esses instrumentos estão o Child-OIDP (*Oral Impacts on Daily Performances*) (GHERUNPONG; TSAKOS, SHEIHAM, 2004), o CPQ (*Child Perceptions Questionnaire*) (JOKOVIC et al., 2002, FOSTER PAGE et al, 2005), *Child Oral Health Impact Profile* (COHIP) (BRODER; WILSON-GERDENSON, 2007), *Child Oral Health Impact Profile-Short Form 19*(COHIP-SF 19) (BRODER; WILSON-GERDENSON; SISCHO, 2012) e Child-OHIP(BRODER, JOKOVIC, LOCKER, 2002). Os questionários *Child-OIDP*(CASTRO et al, 2008) e *CPQ11-14* (GOURSAND et al., 2008 ; JOKOVIC et al, 2002 ;TORRES et al, 2009) já foram testados e validados no Brasil.

A dor de dente, decorrente da falta de tratamento de lesões de cárie severas, ainda é o principal fator clínico odontológico relacionado à ausência escolar nessa faixa etária (KRISDAPONG et al, 2013). Essa condição afeta negativamente o desempenho escolar e o sono desses indivíduos, gera irritabilidade e uma baixa autoestima, o que compromete a realização de suas atividades e o bem estar de toda a família (PIOVESAN et al, 2012; SCHUCH et al, 2015; PAULA, 2015).

A ocorrência de doença periodontal, fluorose severa e injúrias dentais não tratadas também têm um impacto negativo na OHRQOL dos adolescentes devido a problemas que atingem os seus domínios funcionais, emocionais, sociais e orais (CASTRO, 2011; FAKHRUDDIN, 2008). Estudos evidenciam que o mau posicionamento dentário e as insatisfações estéticas faciais também impactam de forma negativa os aspectos físicos, psicológicos e sociais da vida desses jovens e que essas más oclusões estão associadas com a presença tanto de variáveis clínicas como contextuais (BERNABE; SHEIHAM; OLIVEIRA 2009; BORGES; PERES; PERES, 2010; JORDÃO, 2015).

No entanto, nem sempre os resultados obtidos nas pesquisas quantitativas refletem a auto percepção de saúde bucal dos pacientes, pois muitos instrumentos utilizam ainda perguntas negativas oriundas de modelos que detectavam apenas a presença de doença sem considerar a capacidade individual de adaptação ou enfrentamento de situações adversas através de estratégias como o coping (BRONDANI;MACENTEE, 2007; BRONDANI;MACENTEE, 2014). Nesse contexto, a utilização de uma abordagem qualitativa na avaliação das percepções de saúde, também pode contribuir para verificar se os aspectos sociais e emocionais estão sendo descritos e compreendidos de forma adequada pelos instrumentos quantitativos (JOKOVIC;LOCKER;GUYATT, 2005; ALSUMAIT et al, 2015).

Em idosos, estudos que utilizaram metodologias quantitativas e qualitativas foram essenciais para o melhor entendimento do impacto da perda dentária e da reposição protética

na OHRQoL (HAIKAL et al, 2011; SILVA;MAGALHÃES; FERREIRA, 2010). Haikal e colaboradores verificaram que a utilização de uma abordagem exclusivamente quantitativa subestimava os sintomas e o bem-estar emocional relatado pelos pacientes após a perda dentária (HAIKAL et al, 2011).

A utilização da pesquisa com métodos mistos também foi necessária para uma melhor compreensão dos problemas emocionais e funcionais vivenciados pelos pacientes durante o edentulismo, e para o correto entendimento da expectativa e ansiedade gerada frente à possibilidade de reposição protética dos dentes e restabelecimento das relações sociais (SILVA;MAGALHÃES; FERREIRA, 2010).

Na adolescência, medidas de educação e cuidados com a saúde bucal devem ser introduzidas precocemente com o intuito de minimizar a ocorrência de problemas dentários, otimizar a promoção de saúde bucal e conseqüentemente melhorar a qualidade de vida desses jovens (AMERICAN ACADEMY OF PEDIATRIC DENTISTRY, 2016). Além disso, essa é uma fase que merece atenção especial dos programas de saúde, já que os indivíduos podem adquirir informações e comportamentos positivos relacionados à sua saúde (RUZANY; SZWARCOWALDCL, 2000).

No Brasil, segundo dados do último Levantamento de Saúde Bucal Brasileiro apenas 62,9% dos adolescentes de 12 anos apresentaram todos os sextantes hígidos (MINISTÉRIO DA SAÚDE, 2011). E no grupo de 15 a 19 anos apenas 50,9% dos examinados apresentaram todos os sextantes hígidos. Em relação a presença de cálculo nos 12 anos essa foi a pior condição periodontal observada (23,7%) e, com relação ao sangramento, 11,7% dos indivíduos apresentavam essa condição como escore máximo. Presença de cálculo foi a alteração periodontal mais marcante nesse grupo etário de 15-19 anos (28,4%) (MINISTÉRIO DA SAÚDE, 2011).

Além disso, nessa faixa etária muitos ainda apresentam necessidade de tratamentos mais invasivos. Aos 12 anos de idade, 60,8% dos indivíduos no Brasil relataram necessidade de tratamento dentário e 24,6% declararam ter sentido dor de dente nos seis meses anteriores à entrevista. Já no faixa etária de 15-19 anos a necessidade de tratamento dentário autor referida é de 65,1% (MINISTÉRIO DA SAÚDE, 2011). No entanto, ao realizar o tratamento odontológico o paciente tem a possibilidade de restabelecer a sua capacidade mastigatória, suas relações interpessoais, seu bem-estar físico e emocional (ALVES et al, 2013; KRISDAPONG et al, 2013; TURTON et al, 2015).

A adolescência é um período de transição entre a infância e a vida adulta, por isso a realização de uma intervenção odontológica nessa fase tem um significado psicossocial ainda

muito mais expressivo para o adolescente, especialmente para aqueles que se encontram em uma situação de alta vulnerabilidade social e econômica pela possibilidade de adquirirem uma melhor condição de saúde bucal, hábitos mais saudáveis e conseqüentemente uma melhor qualidade de vida a longo prazo.

Nesse contexto destacamos ainda que até o presente momento os estudos têm se preocupado em quantificar o efeito das intervenções odontológicas na vida de crianças e adolescentes (ALSUMAIT et al, 2015; POUSETTE-LUNDGREN; KARSENSTEN; DAHLLÖF, 2015; PAULA et al, 2016; TURTON et al, 2015). Porém, apesar dos resultados encontrados com instrumentos quantitativos evidenciarem que, de fato, as intervenções melhoram a saúde bucal e a vida desses indivíduos, ainda não é possível dimensionar qual é o significado desses escores para o próprio paciente utilizando-se exclusivamente instrumentos quantitativos de pesquisa.

A utilização de uma metodologia mista de pesquisa pode possibilitar um melhor entendimento do impacto do tratamento odontológico para o adolescente e, especialmente, a possível influência do tratamento em suas relações interpessoais, bem estar emocional e a na realização de suas atividades diárias. Tal conhecimento pode contribuir para a adoção de estratégias em saúde que contemplem as expectativas e anseios do próprio adolescente.

Assim, o objetivo desse estudo é avaliar e compreender qual é o impacto do tratamento odontológico na qualidade de vida relacionada à saúde bucal de adolescentes utilizando uma pesquisa mista sequencial explanatória.

2 ARTIGO – IMPACTO DO TRATAMENTO ODONTOLÓGICO NA QUALIDADE DE VIDA RELACIONADA À SAÚDE BUCAL DE ADOLESCENTES: UMA ABORDAGEM QUANTITATIVA E QUALITATIVA

Este artigo será submetido ao periódico Quality of Life Research, As normas para publicação estão descritas no Anexo A.

Impact of dental treatment in the oral health related quality of life of adolescents: a quantitative and qualitative approach

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Abstract: The assessment of the impact of dental treatment on adolescents must include measures that are capable of quantifying and understanding the subjective functional, social, and emotional well-being aspects reported by the patients. It also must be able to comprise how oral interventions can modify the daily life and the oral health related quality of life (OHRQoL) of these individuals. The aim of this study was to evaluate and understand the impact of dental treatment on the oral health related quality of life (OHRQoL) of adolescents, using a sequential mixed methods design. A sample of individuals aged 11 to 15 years-old who had finished their dental treatment in the Adolescent Dental Clinic of the Federal University of Santa Maria from 2010 to 2016 were included in this study. Socioeconomic and treatment information were collected through self-administered questionnaires and clinical records of each patient, respectively. In the quantitative phase the individuals answered the short form of the *Child Perception Questionnaire* 11-14 in two moments: before the beginning of the dental treatment and one month after the conclusion of the treatment. Paired t-tests were used and the effect size was calculated to assess the statistical significance and the magnitude of change. The qualitative evaluation was performed only after the end of the dental treatment through a semi-structured questionnaire, using an audio recorder; questions were based on the dimensions of the CPQ and the answers obtained during the pilot study. The number of interviews was determined by saturation procedures and the reports were analyzed according to thematic analysis following Braun and Clarke. A total of 182 adolescents participated in the study. The effects sizes ranged from 0.35 (small) to 1.00 (large) and the oral symptoms domain presented the greatest effect. Sixteen interviews were conducted and five themes emerged from the interviews: concept of quality of life, perception of oral health, the search of service, implications of oral problems in adolescents' daily life, non-supportive environment and supportive environment. The integration of the results showed that after the treatment the adolescents stopped reporting oral and functional problems and there was an increase in their self-esteem and their social well-being. Thus, dental interventions should be encouraged in the adolescence because they are able to improve the OHRQoL of these individuals.

Keywords: Adolescents. Dental treatment. Oral health related quality of life.

Introduction

The new definition of Oral health is recognized as an important aspect of health, physical and mental well-being. Oral health can be influenced by individual experiences, perceptions, values, expectations, adaptive strategies, behaviors and actions of people and communities. Also, it comprehends physiological, social and psychological aspects that are fundamental to people's quality of life [1]. Quality of life is the individual perception about his/her position in life, context and values. Also, it is related with his/her goals, expectations and concerns [2].

The limitation of clinical health indicators to assess patients' needs and capture the broad aspect of oral health has been widely discussed [3,4]. Therefore, oral health-related quality of life (OHRQoL) measurements has been advocated to assess oral health needs among population groups, thus instructing public health programs [4,5,6]. The OHRQoL is a multidimensional construct that is related to the self-perception of each individual about their oral health condition. This measure has also been widely used by health professionals as a tool in the evaluation of clinical practice and as a relevant outcome for assessing the effectiveness of oral health interventions [4,7].

The findings provided by previous quantitative studies on OHRQoL has been criticized since many instruments still use negative questions from models that detected only the presence of disease without considering the individual's ability to adapt or resist to an adverse situation [8,9]. Also, they are limited for not including psychosocial characteristics (like the sense of coherence, self-esteem, psychological well-being) that seems to be the most important predictor of OHRQoL of adolescents [10].

Adolescence is the period of life between 10 and 19 years old, according to the World Health Organization criteria [11]. These individuals are in constant biological, psychological and social development and oral health interventions in this phase are able to create positive habits that can continued in adulthood [12]. Data published in the last national epidemiological survey conducted in Brazil (SB Brazil) had revealed that about 60.8% of the individuals with 12 years old reported need for dental treatment. The situation becomes even worst for this group with the over down of the years [13].

Also, several quantitative studies have been reported the negative impact of oral health problems on adolescents' OHRQoL in terms of oral symptoms, functional limitations and emotional and social well-being [14,15,16,17,18,19]. However, there is scarce information on how dental treatment for such health problems would improve the adolescents' OHRQoL [20,21,22,23]. The use of a qualitative approach into the evaluation of health perceptions may contribute to verify if social and emotional aspects are being adequately described and understood by the quantitative instruments [24,25,26].

In this context, the use of a mixed methods research takes the advantage of using multiple ways to explore a problem and can provide a better comprehension of the impact of dental problem on the OHRQoL of adolescents. Such knowledge can contribute to the adoption of health strategies that contemplate the concerns and expectations of the own adolescent. Thus, the aim of this study was to evaluate and understand the impact of dental treatment on the oral health-related quality of life of adolescents using a mixed method approach.

Methods

Participants

This study used a convenience sample of adolescents that received dental treatment in the Dental Clinic of the Federal University of Santa Maria in the period of October 2010 until December 2016. Santa Maria is a southern city in Brazil with 261,031 inhabitants. 41.784 people of this city have 10-19 years old [27].

This clinic provides dental treatment for adolescents aged 10-15 years especially for those who were enrolled in public schools and from lower socio-economic status. It is estimated that 50 patients were treated per year. A total of 117 subjects were necessary to achieve a minimum effect size of 0.3 with a level of significance of 0.05, a statistical power of 80%, and assuming 30% refusals and losses.

The procedures were performed by undergraduate dental students, under the supervision of post-graduate students and two professors. The most commonly performed procedures in this clinic were dental hygiene instructions, restorative and endodontic treatments, deciduous and permanent teeth extractions, and supragingival scaling.

Phases of this study

The outcome of this study was the Oral Health-Related Quality of Life (OHRQoL) of adolescents. This measure was assessed through a sequential mixed method design (Figure 1) with approval from the Ethics Committee of the Federal University of Santa Maria.

The first phase of this study was quantitative. This phase was conducted with the objective to compare the self-perception of the adolescents prior to dental treatment and one month after the conclusion of the treatment. The second phase used a qualitative design and it was performed to understand how the oral problems can affect the daily aspects of the adolescents, and if the treatment is able to improve their quality of life. The third phase is an integration of previous two phases and provides an explanation about how the results obtained in the quantitative phase can be explicated for the qualitative phase.

Quantitative method

In the quantitative phase we included all adolescents who completed the treatment in the period of data gathering (from October 2010 to December 2016). The quantitative evaluation was conducted using structured questionnaires and face-to-face interviews that were performed by four interviewers previously trained. The training of the interviewers were carried out by two researches and consisted of six hours of theoretical classes and practical training with a sub-sample of ten patients.

The short form of the Brazilian Children Perception Questionnaire (CPQ) 11-14 [28,29,30] was used in this study. The responsiveness of the short form of Brazilian Children Perception Questionnaire was already tested in other study of this group and presented accepted responsiveness for dental treatment. This questionnaire was answered by adolescents' prior their dental treatment and it was reapplied 1 month after the end of the treatment. Individuals that had intellectual or physical problems reported by their guardians were not included in this research by the possibility of confusing the answers regarding the adolescents' self-perception of oral health.

The CPQ11-14 was performed through face to face interviews conducted by trained examiners in a reserved place. The CPQ11-14 comprised 16 questions divided into 4 domains: oral symptoms (4 questions), function limitations (4 questions), emotional well-being (4 questions) and social well-being (4 questions). The

possible answers were established in a 5-Likert scale which comprises the following responses: ‘never’=0; ‘once/twice’=1; ‘sometimes’=2; ‘often’=2 and ‘every day/almost every day’=4. The final result was obtained summing the scores for each domain that ranged from 0 to 16. The total score also was summed and ranged from 0 to 64. Higher scores evidence that oral conditions have a negative impact in the adolescent’s OHRQoL [30].

Socioeconomic characteristics were collected from the responsible person via questionnaire. The questionnaire includes information’s about gender, age and color of skin of the adolescent. The household income, overcrowding house, and the guardians’ education level were also collected. Household income was collected using the Brazilian Minimum Wage, which, during the study period, corresponded to US\$ 288. The analysis for household income was obtained from the median (1.0 BMW). Household overcrowding was determined through the number of persons by rooms in the house. Parents’ education was collected in years of education. Later, this variable was categorized in less than 8 years of study and for at least 8 years of study, corresponding to primary education in Brazil.

Qualitative method

A trained interviewer (MCM) spent 12 months in the Adolescent’s Clinic to get used with the clinic operations. During this time the research was able to observe the behavior and the expressions commonly used by the adolescents. Also, this period was fundamental to help to establish the first contact with patients who could be invited to participate in this phase. The interviewer did not work as a dental provider for any patient.

A pilot study was conducted to evaluate the possible difficulties that could be encountered by the adolescents during the interviews. In the pilot study, the interviews were individually conducted with 2 adolescents that had recently finished their dental treatment. In the second moment, 3 adolescents that have finished their dental treatment in Dental Clinic of the UFSM were invited to participate on the interviews. The adaptations of the questions were performed after these phases. The participants of the pilot study were not included in the analysis of this study.

A written informed consent was obtained before all interviews and they were carried out in a comfortable non-clinical office setting. The researcher used opened questions during the interview that were derived from CPQ11-14’s questionnaire. Other questions also were built with the assistance of a researcher with experience in qualitative research. We decided to consider eligible for this phase only the patients that finished their dental treatment in the period of of August/ 2017 to December/2017. However, the patients were invited to participate of the interviews 30 days after the end of dental treatment and after answered the quantitative questionnaire CPQ11-14. All the patients were contact by telephone. The interviewer was blinded to the results of the quantitative phase.

The interviews were audiotaped and conducted individually This type of interviews were preferred because the participants didn’t know each other and in adolescence they tend to have difficult to talk in the presence of other teenagers. The researcher started the interview asking for the adolescent to tell what quality of life means for him/her and after asking whether oral health influences his/her quality of life. In addition, participants were given opportunities to express themselves about the reason for looking for this dental service and to tell how was their daily activities before undergoing the dental treatment. The researcher also used open ended questions derived from CPQ11-14’s questionnaire during the interview. In order to assess the possible changes on the OHRQoL after the dental treatment, the participants were asked to answer two questions: “How

is your life after the dental treatment?” and “Do you think that this treatment was important for you?”. At the end of the interview, the interviewer also asked the adolescents to express anything important that was not asked during the interview process.

The number of interviews was determined by saturation procedures [31]. The interviews were transcribed by two other researchers, and the transcripts were checked for accuracy by the interviewer.

Data Analysis

The quantitative data were analyzed using the software STATA 14.0 (Stata Corporation, College Station, TX, USA). Changes in the scores of the CPQ 11-14 were obtained by subtracting the pre-treatment and the post-treatment overall CPQ 11-14 scores and its domain. Paired t-tests were used and the effect size [mean difference/ standard deviation change score] were calculated to assess the statistical significance and the magnitude of change. The effect size were considered as small (0.20), medium (0.50) and large (0.80) [32].

The effect size of each treatment was also evaluated. The treatments were shared in three groups. The preventive treatment included people that received hygiene orientation, application of fluoride or scraping. The restorative treatment includes adolescents that performed endodontic or restorative treatment. The surgical treatment included the patients that only did permanent or deciduous exudation or other types of surgery treatments like frenectomy, ulectomy or gingivectomy. The prevalence of dental pain related by the patient in the previous three months before the first attendance was measured by the first question of short form of CPQ11-14.

In the qualitative phase, the speeches were transcribed and analyzed according to the thematic content analysis proposed by Braun and Clark [33]. First, the researcher transcribed the statements and became familiar with the data. At that time, it was possible to generate ideas for the development of codes. Themes were developed after combining codes with similar characteristics. The next steps were the revision and refinement of the themes, the definition of the themes, and the production of the report that consist of the writing of the qualitative analysis as described by Braun and Clark [33]. During the integration of the quantitative and qualitative approaches, each interview was analyzed together with each respective answered quantitative questionnaire. This strategy was performed by the authors and aimed to understand how the quantitative results were explained by the qualitative phase.

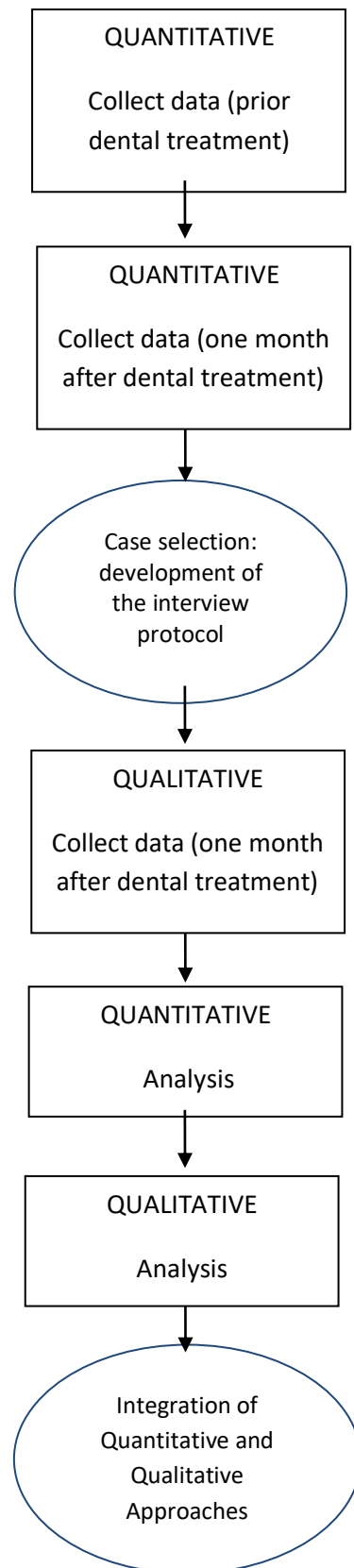


Fig 1- Diagram of sequential mixed method design.

RESULTS

Quantitative Phase

A total of 182 adolescents participated in this study (48.35% female and 51.65% male). Table 1 describes the sample distribution according to sociodemographic and economic characteristics. The mean age of the sample was 12.27 (SD 1.44). Most of the adolescents were white, had a monthly family income of at least 1 minimum wage and had parents with less than 8 years of study. The prevalence of dental pain in the previous three months was the 62.64% in the sample.

Table 2 shows the scores of the Child Perception Questionnaire 11-14 (short-form) prior dental treatment and one month after the dental treatment. The overall mean of the domains was 12.24 (SD 9.70) before treatment and 5.93 (SD 6.09) after the treatment. There was also an improvement on oral health-related quality of life in all domains scores. The effects sizes ranged from 0.35 (low) to 1.00 (high) and the oral symptoms domain had the greatest effect.

Table 3 shows the effect size of the scores of the Child Perception Questionnaire 11-14 (short-form) prior dental treatment and one month after the dental treatment according to each treatment performed. The three groups presented a large effect size in their overall mean of the CPQ, indicating that all the treatments were important to improve the OHRQoL of the adolescents.

Qualitative Phase

A total of 16 adolescents participated in the interviews being 10 males and 6 females. No participants refused to do the interviews. No further interviews were made after the researchers achieved saturation [31].

Five themes emerged from the interviews: concept of quality of life, perception of oral health, the search of service, implications of oral problems in adolescents' daily life, non-supportive environment and supportive environment.

1) Concept of quality of life

The most part of the adolescents narrated that quality of life is related to self-esteem, good conditions of health and social relationships. Moreover, many participants mentioned that money is also an important aspect to people have a quality of life. Adolescents said that oral health also influences their quality of life especially because they felt worried about what others will think of their teeth during a speech. Participants also pointed out the importance of oral health for basic daily activities such as eating and talking.

2) Perception of oral health

The majority of adolescents reported that they did not have a good oral health condition prior to the dental treatment. The presence of clinical symptoms of diseases such as dental caries and gingivitis also influenced a worse self-perception of oral health; as described by a 15-year-old male participant:

"I think it was pretty low because I did not care too much. I think when we do not have good teeth we don't want to take care of it, we leave them there"

The adolescents felt even worse after the first consultation because most of them realized that their oral health care was very precarious and that they had more problems than they thought. In this report, a 16-year-old female patient mentioned:

"I saw that I had to improve my oral hygiene which I didn't care. At this moment I felt slob".

All the participants presented a better perception of oral health after the end of the treatment because they didn't present oral problems anymore. Also, they were encouraged to take care of their oral health and to have good dental hygiene habits. This fact can be observed in some statements:

"My oral health changed. Now I take care of my teeth much more. I had the tooth decayed; I had a lot of problems. Then I started to see that I had to take care, otherwise I could ruin everything right".

"I think I'm much better than before, I even feel more relieved, much better, much happier".

3) Service search and implications of oral symptoms in adolescents' daily lives

Most of the patients sought the clinic due to the presence of oral symptoms such as a toothache, gingival bleeding, bad breath, the presence of decayed or fractured teeth. This theme was evident when this 16-year-old female patient and this 14-year-old male patient commented on the reason for looking for dental treatment:

"More for caries and the unbearable pain I had in my teeth."

"Because my teeth were all wrong, I was in a lot of pain, my teeth were bleeding a lot when I brushed them and I had a lot of sensitivity."

Oral symptoms also affected other aspects of patients' daily life that were divided into 3 subcategories: functional limitation, emotional and social well-being. These subcategories were based on the domains established in the Child Perception Questionnaire 11-14 [28].

3.1) Functional limitation

The impact of oral symptoms on functional limitation can be expressed on the difficulty in sleeping, talking and eating some types of foods. A 13-year-old female patient mentioned:

"I did not talk too much because of the pain and I avoided eating because I didn't want to do anything with that tooth so I would not feel pain. I also did not open my mouth because the wind caused a shock that hurt a lot. "

3.2) Emotional well-being

In many instances, it was evident to observe that young people felt sad and upset due to their oral symptoms. The adolescents were ashamed and worried about the opinion of other people about their oral condition. In this report, an 11-year-old female patient highlights:

"I felt a bit ashamed to show my teeth to people because they would talk behind my back, saying they were bad or ugly."

3.3) Social well-being

Oral symptoms also cause impairments in interpersonal relationships at this stage of life. Many of the participants have already been questioned by their friends about their oral conditions and sometimes received nicknames due to oral problems. The next statement showed the difficulties found by a 14-year-old male due to dental problems in school

"Once I had to take a picture in the school, so I did not take the picture because I was ashamed, I was too embarrassed. I would have to take a picture smiling, so I missed the school that day. "

They also had difficulties in performing their daily activities such as concentrating, performing tasks, and attending school. When some patients were asked about the existence of possible problems in the school due to the oral problems, a 16-year-old male commented:

"In the beginning of this year, I tried to pay attention in the class, but I felt pain and several times I had to ask to leave because of my tooth."

4) Non-supportive environment

The interviewees mentioned fear, bad experiences reported by friends and relatives, traumatic experiences in childhood and beliefs, values, attitudes and behaviors that hampered the search for treatment.

The traumatic experiences in childhood and the negative reports of other people were decisive factors that made adolescents to be afraid of looking for dental services. These behaviors can be evidenced in the statements below of two patients when they were asked about how they felt in their first visit to the dentist:

"Scared, because everyone always talked about how it hurt a lot."

"Scared, because once I went and I felt a lot of pain, and also because of the noise, you know? I'm scared, then I'm already in pain before they touch my teeth. "

Most patients reported that their family members had a toothache, and in some situations they mentioned that the treatment was not performed because they preferred to use alternatives methods of treatment. The adolescents followed these family behaviors as can be observed in the statements:

"My mother said that she felt like she was dying of a toothache, so she put hot salt water in her mouth to relieve the pain. I've done it; it works a little. "

"I did a lot of things, you know? My grandmother is traditional, you know? Her custom was to apply hot water and a little medicine on the tooth. So, I went to the drugstore and bought medicine to rid the pain, taking it all the time. Sometimes it worked, but later that pain was back. I would also pick up the toothbrush and keep going like this, you know? It relieved me and I slept with the toothbrush by my side; every time it hurt, I would pick up the toothbrush and brush my teeth again. "

5) Supportive environment

The specialized care for this age group and the interdisciplinary of different areas in this Clinic were fundamental factors to make it a reference and a supportive place to the adolescents. This fact can be exemplified with the following statements:

"Because everyone told me that the service here, at the clinic, was good and cool, I came to fix my teeth."

"I've always been a little anxious to imagine how everything was. When I got here, everything was so cool. Several buildings, right in the city; something we cannot imagine, but it's good. We'd feel at ease."

"It did not hurt because here they have a lot of careful to do the procedures."

In addition, the university extension environment involving teachers, graduate students, students, and patients contributed to making the place more relaxed and fun, which was essential for patients to feel more confident and comfortable in performing all dental procedures. This information can be exemplified in the reports of 2 female patients of 15 and 13 years of age, respectively:

"I have always been very well attended in this Clinic. I think it changed my life, it was very important for me to be here in the clinic. I think it would be a lot better than any other dentist because they always treated me well and entertained me here."

"When they told me that the treatment was finished, I felt sad because I started to like it here and I liked it a lot because they were very kind and I felt like crying."

Third Phase: Integration of the approaches

The integration of the results showed evidence of improvement on the oral health-related quality of adolescents after treatment. The results of both phases demonstrated that after the dental treatment the adolescents stopped to feel pain, discomfort and were able to retake their basic daily activities without difficulty. After patients were questioned whether dental treatment was important, some patients highlighted:

"I think it was important to improve my quality of life and to eat ever kind of food".

"Eating. The most important is that I can eat. Before it was difficult to eat and now is normal".

In the quantitative analysis, a small to medium effect of changes could be observed on the scores of the emotional and social domains (table 2). However, in the interviews the majority of adolescents related emotional and social problems due to oral problems prior to dental treatment. They felt upset, ashamed and inferior by other people. After the dental treatment, it was observed a great improvement on their self-esteem and on their social relationships. Also, when questioned about the importance of dental treatment, the majority of the adolescents mentioned the positive impact on the social and emotional domains. In these answers this can be observed:

"It was important because I need my teeth and before the dental treatment they were in a bad condition. Also because I can have a better communication with people. I don't have to ashamed when I talk to someone, I don't have to avoid straight conversation with someone because of my bad breath. It's much better."

"As I told you, even our self-esteem improves because if you give a smile or have a talk with other people, no one is going to look at your mouth, they will look at you normally."

"This treatment was very important because it helped me especially in the talking to other people. Now it's easier to interact with other people, I lost the shame."

"It was quiet important because as I told you I used to be worried if people would talk behind my back and then approach me pretending they are my friends. Then, I think it has influenced a lot because at least I know that I'm fine and I don't have to be worried like that. I feel better."

However, during the interviews, it was also possible to observe that some adolescents related the presence of orthodontic problems that cause disturbance in their OHRQoL. In these cases, the adolescents said that their life becomes better after this dental treatment, but they know that after the end of the orthodontic treatment they will feel much better. In this sentence the male adolescent comments about their oral health condition:

“Before? It was awful. My teeth hurt and they were ugly too. It was worse than now. I don’t think I’m handsome now but I think it’s way better. I can easily eat, laugh. It’s normal now, fine. I know that when I put the braces on it will get better, but for now it’s okay.”

Discussion

This study evaluated the impact of dental treatment on the OHRQoL of adolescents using a mixed method approach. To our knowledge this is the first study that had investigated this subject combining quantitative and qualitative methods. The quantitative method was important to compare the data in a large sample size and to generalize the data for similar populations. The qualitative method provided the opportunity for the adolescents to express their challenges, experiences and perceptions about their treatment in their lives. The integration of these phases promoted a better understanding about this subject and provided evidence that the dental treatment improved the OHRQoL of adolescents in the total score and in all four CPQ 11-14 domains.

The results of both phases indicated that all the treatments were important to improve the OHRQoL of the adolescents. However, it’s important to emphasize that great results were found because the adolescents presented higher scores of pain in their first day in the Clinic. In the reports were possible to observe that the dental pain is a problem that affects the routine of these individuals generating stress in this phase of life. A lot of them reported that they just had received the urgency dental service and after that they didn’t have a reference service to continue the treatment required. The date of the National oral health survey also supported the fact that in Brazil this population presented high scores of dental pain and a large need for dental treatment [12]. Other studies also have been confirming the important of performing a restorative and surgical dental treatment to improve the OHRQoL of these individuals [24, 25].

It is important to highlight that even adolescents that only performed a preventive treatment had improvements on their OHRQoL and the supportive environment can be related with the great results found. Improving dental visiting behavior in this phase of life could have a psychosocial meaning for the adolescent, especially for those who are in a situation of high social vulnerability and economical by the possibility of reduce oral health impacts and to promote good habits of hygiene in adulthood [34].

However, other longitudinal studies had investigated the effect of dental treatment in the OHRQoL of adolescents and didn’t find the same results [20, 23]. The magnitude of change of these studies expressed by the effect size was considered small in all the domains. However in those studies the patients were evaluated six months after the dental treatment. It was possible that the results found could be different at different time points. In another study that evaluated the effect of restorative dental treatment on the OHRQoL of 8-10 years old children with low socioeconomic conditions the authors also found large effects sizes of change in all the domains using 30 days of follow up [35].

In our study all the domains presented medium or large effects of sizes with the exception of the social domain. This could be explained by the presence of orthodontic problems related in the qualitative phase

because the patients continued to relate insecurity or discomfort in smiling even after the end of the dental treatment. In a cross-section study other authors also had found that dental disorders affect the aesthetics and psychosocial behaviors of the adolescent's compromising their self-esteem and their OHRQoL [36]. In a study conducted in Adelaide the authors evaluate the orthodontic treatment expectations of adolescents using a qualitative and quantitative methodology. The results of this research also are in agreement of our study because the adolescents expected that orthodontic treatment improve their dental appearance and their quality of life [37].

In a longitudinal study the improvement in the self-esteem were also associated with better scores of OHRQoL [38]. Two recent systematic reviews found relation between malocclusion and a worst OHRQoL predominantly in the emotional and social well-being dimensions and showed that orthodontic treatment during childhood or adolescence is associated with moderate improvements in these two dimensions [39,40,].

Most of the participants had difficult to talk about the concept of quality of live. However, even adults have difficult to talk about it because this concept involves a complex construct that couldn't be assessed without considering the individuals experiences of each one [41]. Also, all the methods currently used to measure quality of life and OHRQoL have some limitations and because of that the use of a mixed method represents a strength on the overall of this study.

To our knowledge, this is the first study to provide an opportunity for adolescents express their opinions about the dental treatment performing. The dental treatment is something considered really important for the adolescent because it represented for them an opportunity to return their daily activities and to improve their social relationships. It is also important to emphasized that clinical interventions that ignore the patient's opinion and individual experiences tend not to be effective [42].

However, the results of this study should be analyzed with caution because the sample included only patients from a convenience sample who are from public schools and had a low socio-economic status. They may had a worst OHRQoL and the effect of the dental treatment may have been overestimated because they had a high social vulnerability and any intervention in this group may produce a great impact.

Then, other longitudinal studies using a mixed method approach may be necessary to observe this relationship in populations with other social and economic conditions. Also, The OHRQoL of adolescents was measured 30 days after the end of the dental treatment in the two phases of this research. It was possible that the results found could be different at different time points.

Conclusion

Dental interventions reduce the oral problems and the functional limitations of adolescents and improve the self-esteem and the social relationships of them. Thus, the dental treatment has a psychosocial meaning for adolescents in this phase of life and it is able to improve their OHRQoL .

Table 1 Characteristics of the Sample: 182 10-15-Year-Old Adolescents, Santa Maria – RS, Brazil

Variable	n (%)
Gender	
Female	88 (48.35)
Male	94 (51.65)
Race	
White	144 (81.82)
Non-white	32 (18.18)
Age	
10-12	110 (60.44)
13-15	72 (39.56)
Household Income*	
≥ 1 BMW	84 (50.30)
< 1 BMW	83 (49.70)
Mother's education	
≥ 8 years	93(54.07)
< 8 years	79 (45.93)
Father's education	
≥ 8 years	82 (49.70)
< 8 years	83(50.30)
Overcrowding	
Less than 1 person/ room	89 (50.57)
More than 1 person/room	87 (49.43)

†BMW: Brazilian minimum wage 937,00 (approximately US\$ 296).

Table 2- Child Perception Questionnaire 11-14 (short form) scores before dental treatment and one month after the end of the dental treatment.

CPQ	Prior treatment	After treatment	Effect Size	p*
Overall mean	12.24(9.70)	5.93(6.09)	0.85	p<0.05
Domain means				
Oral symptoms	5.27(2.75)	2.24(1.94)	1.00	p<0.05
Functional Limitation	3.67(2.99)	1.58(2.02)	0.70	p<0.05
Emotional well-being	3.68(3.68)	1.25(2.50)	0.66	p<0.05
Social well-being	1.89(2.84)	0.89(1.74)	0.35	p<0.05

The effect size of the averages was considered small (0.20), medium (0.50) and large (0.80).

*p-value derived from paired t-test

Table 3- Effect size of each group of treatment

CPQ	Preventive treatment	p*	Restorative treatment	p*	Surgical treatment	p*
Overall mean	1.10	p<0.05	0.97	p<0.05	1.05	p<0.05
Domain means						
Oral symptoFunctional	1.37	p<0.05	0.90	p<0.05	1.41	p<0.05
Limitation	0.49	p<0.05	0.72	p<0.05	0.72	p<0.05
Emotional well-being	0.56	p<0.05	0.67	p<0.05	0.85	p<0.05
Social well-being	0.44	p=0.53	0.43	p<0.05	0.36	p<0.05

The effect size of the averages was considered small (0.20), medium (0.50) and large (0.80)

*p-value derived from paired t-test

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3 CONCLUSÃO

Portanto, o tratamento dentário nessa fase melhora os problemas orais, as limitações funcionais, o bem estar emocional e social dos adolescentes. Além disso, salienta-se que as intervenções odontológicas devem ser incentivadas na adolescência, pois nessa fase os adolescentes podem adquirir bons hábitos de higiene orais e isso pode ter um impacto positivo nas suas condições bucais na vida adulta.

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ANEXO A- PERGUNTAS GLOBAIS E CPQ -11-14

Sexo: () M () F Data de nascimento: ____/____/____

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

() Excelente () Boa () Regular () Ruim () Péssima

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 frequência você teve?

	nunca	1 ou 2 vezes	algumas vezes	frequentemente	todos os dias ou quase todos
1. Dor nos seus dentes, lábios, maxilares ou boca?					
2. Feridas na boca?					
3. Mau hálito?					
4. Restos de alimentos presos dentro ou entre os seus dentes?					

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

Nos últimos 3 meses, com que frequência você:

	nunca	1 ou 2 vezes	algumas vezes	frequentemente	todos os dias ou quase todos
5. Demorou mais que os outros para terminar sua refeição?					

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

	nunca	1 ou 2 vezes	algumas vezes	frequentemente	todos os dias ou quase todos
6. Dificuldade para morder ou mastigar alimentos como maçãs, espiga de milho ou carne?					
7. Dificuldades para dizer algumas palavras?					

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

PERGUNTAS SOBRE SENTIMENTOS E/OU SENSATÕES

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”.

	nunca	1 ou 2 vezes	algumas vezes	frequentemente	todos os dias ou quase todos
9. Ficou irritado (a) ou frustrado (a)?					
10. Ficou tímido (a), constrangido (a) ou com vergonha?					
11. Ficou chateado?					
12. Ficou preocupado com o que as outras pessoas pensam sobre seus dentes, lábios, boca ou maxilares?					

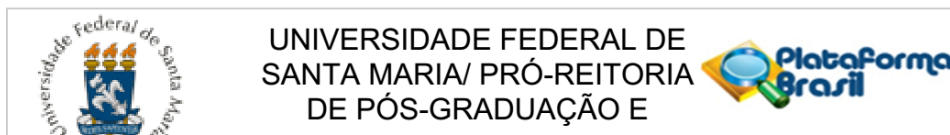
PERGUNTAS SOBRE SUAS ATIVIDADES EM SEU TEMPO LIVRE E NA COMPANHIA DE OUTRAS PESSOAS

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 frequência você:

	nunca	1 ou 2 vezes	algumas vezes	frequentemente	todos os dias ou quase todos
13. Evitou sorrir ou dar risadas quando está com outras crianças?					
14. Discutiu com outras crianças ou pessoas de sua família?					
15. Outras crianças lhe aborreceram ou lhe chamaram por apelidos?					
16. Outras crianças fizeram perguntas sobre seus dentes, lábios, maxilares e boca?					

ANEXO B- PARECER CONSUBSTANCIADO DO CEP



UNIVERSIDADE FEDERAL DE
SANTA MARIA/ PRÓ-REITORIA
DE PÓS-GRADUAÇÃO E

PARECER CONSUBSTANCIADO DO CEP

DADOS DO PROJETO DE PESQUISA

Título da Pesquisa: IMPACTO DO TRATAMENTO ODONTOLÓGICO NA QUALIDADE DE VIDA RELACIONADA À SAÚDE BUCAL DE ADOLESCENTES: UMA ABORDAGEM QUANTITATIVA E QUALITATIVA

Pesquisador: Thiago Machado Ardenghi

Área Temática:

Versão: 2

CAAE: 57783616.8.0000.5346

Instituição Proponente: Departamento de Estomatologia

Patrocinador Principal: Financiamento Próprio

DADOS DO PARECER

Número do Parecer: 1.681.340

Apresentação do Projeto:

Trata-se de projeto de dissertação de mestrado vinculado ao Programa de Pós-Graduação em Odontologia. Esta apresentado da seguinte forma: "A avaliação do impacto do tratamento dentário na qualidade de vida relacionada a saúde bucal dos adolescentes deve abranger estratégias que sejam capazes de quantificar e compreender os aspectos sociais, emocionais, funcionais e relacionados ao bem estar diário desses pacientes. Será realizado um estudo longitudinal que avaliará a OHRQOL dos adolescentes previamente ao tratamento dentário e um mês após a conclusão do mesmo. Também serão coletadas variáveis clínicas e sociodemográficas dos pacientes. A amostra desse trabalho será de conveniência e incluirá indivíduos de 11 a 14 anos de idade que procuraram atendimento na clínica de Adolescentes da Universidade Federal de Santa Maria nos período de 2012 a 2016. A avaliação quantitativa, realizada através do questionário Child Perception Questionnaire 11-14 (versão reduzida), será feita previamente a realização do tratamento odontológico e um mês após o término do mesmo. Para análise estatística, será utilizado um modelo de regressão de Poisson ajustado para avaliar os após o término do tratamento realizado e será feita por meio de perguntas semiestruturadas realizadas de forma flexível, utilizando-se um gravador de áudio, baseadas nas dimensões do CPQ e das respostas obtidas durante o estudo piloto. As entrevistas serão realizadas até que o pesquisador atinja o

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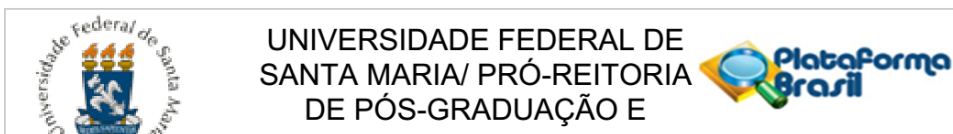
CEP: 97.105-970

UF: RS

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Telefone: (55)3220-9362

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Continuação do Parecer: 1.681.340

ponto de saturação dos dados. As falas transcritas serão analisadas segundo a análise de conteúdo temática proposta por Minayo."

Os custos serao absorvidos pelos pesquisadores.

Objetivo da Pesquisa:

OBJETIVO GERAL: avaliar o efeito do tratamento odontológico na qualidade de vida relacionada a saúde bucal dos adolescentes atendidos na Clínica de Adolescentes da Universidade Federal de Santa Maria (UFSM).

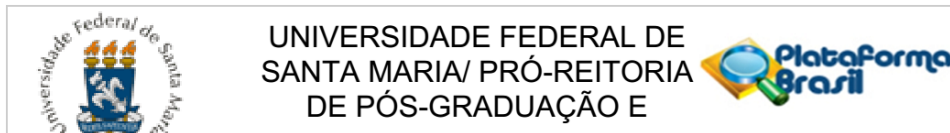
OBJETIVOS ESPECÍFICOS

- Avaliar a auto percepção da saúde bucal dos adolescentes previamente ao início do tratamento odontológico e um mês após o término do mesmo;
- Verificar, após o término do tratamento dentário, o domínio (funcional, social, emocional ou relacionado aos sintomas orais) que está tendo maior impacto na qualidade de vida dos adolescentes estudados.
- Verificar as características clínicas, sociodemográficas e as necessidades de saúde percebidas pelos pacientes atendidos na Clínica de Adolescentes da UFSM.

Avaliação dos Riscos e Benefícios:

Sobre os riscos cita-se: "Como riscos, os adolescentes poderão sentir-se cansados ao responderem os questionários ou terem alguns sentimentos desencadeados ao refletirem sobre a sua auto percepção de saúde bucal e sobre o impacto do tratamento dentário na sua qualidade de vida relacionada a saúde bucal. Se essa situação ocorrer, os pesquisadores darão atenção e ouvirão o relato do adolescente se esse for o desejo do mesmo. Nessa circunstância, será informado novamente ao participante que ele pode interromper sua participação nessa atividade a qualquer momento se achar conveniente. Além disso, o adolescente estará exposto aos riscos mínimos inerentes a qualquer procedimento odontológico (como ansiedade, medo ou algum incômodo durante o procedimento). Porém, o aluno que executará o seu tratamento explicará tudo o que esta fazendo para ele e o aluno poderá interromper o procedimento se o adolescente julgar necessário. Também salientamos que os alunos que executam os procedimentos na nossa Clínica estão nos últimos semestres do curso, estarão acompanhados por pós-graduandos e serão orientados por professores."

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Telefone: (55)3220-9362 **E-mail:** cep.ufsm@gmail.com



Continuação do Parecer: 1.681.340

Sobre os benefícios cita-se: "Entre os benefícios de sua participação estão o tratamento e acompanhamento odontológico que será feito para todos os participantes e a resolução de problemas bucais durante o transcorrer dessa pesquisa."

Riscos e benefícios estão descritos de maneira adequada e consistente em todos os documentos apresentados.

Comentários e Considerações sobre a Pesquisa:

O projeto está bem apresentado e todas as dúvidas quanto a formação da amostra e número de participantes foram esclarecidas.

Considerações sobre os Termos de apresentação obrigatória:

Todos os documentos estão apresentados de maneira adequada.

Recomendações:

Veja no site do CEP - <http://w3.ufsm.br/nucleodecomites/index.php/cep> - na aba "orientações gerais", modelos e orientações para apresentação dos documentos. Acompanhe as orientações disponíveis, evite pendências e agilize a tramitação do seu projeto.

Conclusões ou Pendências e Lista de Inadequações:

O projeto não apresenta pendências e pode ser aprovado.

Considerações Finais a critério do CEP:

Este parecer foi elaborado baseado nos documentos abaixo relacionados:

Tipo Documento	Arquivo	Postagem	Autor	Situação
Informações Básicas do Projeto	PB_INFORMAÇÕES_BÁSICAS_DO_PROJETO_734954.pdf	12/08/2016 17:12:58		Aceito
Declaração de Pesquisadores	Termo_de_confidencialidade.pdf	12/08/2016 17:09:39	Thiago Machado Ardenghi	Aceito
TCLE / Termos de Assentimento / Justificativa de	Termo_de_consentimento_livre_e_esclarecido.pdf	12/08/2016 17:07:12	Thiago Machado Ardenghi	Aceito

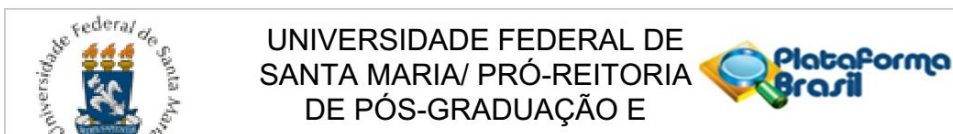
Endereço: Av. Roraima, 1000 - prédio da Reitoria - 2º andar

Bairro: Camobi **CEP:** 97.105-970

UF: RS **Município:** SANTA MARIA

Telefone: (55)3220-9362

E-mail: cep.ufsm@gmail.com



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DE PÓS-GRADUAÇÃO E

Continuação do Parecer: 1.681.340

Ausência	Termo_de_consentimento_livre_e_escla recido.pdf	12/08/2016 17:07:12	Thiago Machado Ardenghi	Aceito
TCLE / Termos de Assentimento / Justificativa de Ausência	Termo_de_assentimento.pdf	12/08/2016 17:06:52	Thiago Machado Ardenghi	Aceito
Projeto Detalhado / Brochura Investigador	Comprovante_de_Registro_no_GAP.pdf	04/07/2016 20:14:04	Thiago Machado Ardenghi	Aceito
Projeto Detalhado / Brochura Investigador	Projeto_detalhado.pdf	04/07/2016 20:08:35	Thiago Machado Ardenghi	Aceito
Folha de Rosto	20160607154251947.pdf	07/06/2016 15:47:49	Thiago Machado Ardenghi	Aceito
Outros	Autorizacao_Institucional.pdf	07/06/2016 15:40:14	Thiago Machado Ardenghi	Aceito

Situação do Parecer:

Aprovado

Necessita Apreciação da CONEP:

Não

SANTA MARIA, 16 de Agosto de 2016

Assinado por:
CLAUDEMIR DE QUADROS
(Coordenador)

Endereço: Av. Roraima, 1000 - prédio da Reitoria - 2º andar
Bairro: Camobi **CEP:** 97.105-970
UF: RS **Município:** SANTA MARIA
Telefone: (55)3220-9362 **E-mail:** cep.ufsm@gmail.com

ANEXO C- NORMAS DA REVISTA

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Manuscript Submission

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Title Page

The title page should include:

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A concise and informative title

The affiliation(s) and address(es) of the author(s)

The e-mail address, and telephone number(s) of the corresponding author

If available, the 16-digit ORCID of the author(s)

Abstract

Please provide a structured abstract of 150 to 250 words which should be divided into the following sections:

Purpose (stating the main purposes and research question)

Methods

Results

Conclusions

Keywords

Please provide 4 to 6 keywords which can be used for indexing purposes.

Text

Text Formatting

Manuscripts should be submitted in Word.

Use a normal, plain font (e.g., 10-point Times Roman) for text.

Use italics for emphasis.

Use the automatic page numbering function to number the pages.

Do not use field functions.

Use tab stops or other commands for indents, not the space bar.

Use the table function, not spreadsheets, to make tables.

Use the equation editor or MathType for equations.

Save your file in docx format (Word 2007 or higher) or doc format (older Word versions).

Manuscripts with mathematical content can also be submitted in LaTeX.

LaTeX macro package (zip, 182 kB)

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Abbreviations should be defined at first mention and used consistently thereafter.

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Footnotes to the text are numbered consecutively; those to tables should be indicated by superscript lower-case letters (or asterisks for significance values and other statistical data). Footnotes to the title or the authors of the article are not given reference symbols.

Always use footnotes instead of endnotes.

Acknowledgments

Acknowledgments of people, grants, funds, etc. should be placed in a separate section on the title page. The names of funding organizations should be written in full.

Scientific style

Please always use internationally accepted signs and symbols for units (SI units).

Generic names of drugs and pesticides are preferred; if trade names are used, the generic name should be given at first mention.

References

Citation

Reference citations in the text should be identified by numbers in square brackets. Some examples:

1. Negotiation research spans many disciplines [3].
2. This result was later contradicted by Becker and Seligman [5].
3. This effect has been widely studied [1-3, 7].

Reference list

The list of references should only include works that are cited in the text and that have been published or accepted for publication. Personal communications and unpublished works should only be mentioned in the text. Do not use footnotes or endnotes as a substitute for a reference list.

The entries in the list should be numbered consecutively.

Journal article

Harris, M., Karper, E., Stacks, G., Hoffman, D., DeNiro, R., Cruz, P., et al. (2001). Writing labs and the Hollywood connection. *Journal of Film Writing*, 44(3), 213–245.

Article by DOI

Kreger, M., Brindis, C.D., Manuel, D.M., & Sassoubre, L. (2007). Lessons learned in systems change initiatives: benchmarks and indicators. *American Journal of Community Psychology*. doi:10.1007/s10464-007-9108-14.

Book

Calfee, R. C., & Valencia, R. R. (1991). *APA guide to preparing manuscripts for journal publication*. Washington, DC: American Psychological Association.

Book chapter

O'Neil, J. M., & Egan, J. (1992). Men's and women's gender role journeys: Metaphor for healing, transition, and transformation. In B. R. Wainrib (Ed.), *Gender issues across the life cycle* (pp. 107–123). New York: Springer.

Online document

Abou-Allaban, Y., Dell, M. L., Greenberg, W., Lomax, J., Peteet, J., Torres, M., & Cowell, V. (2006). Religious/spiritual commitments and psychiatric practice. Resource document. American Psychiatric Association. http://www.psych.org/edu/other_res/lib_archives/archives/200604.pdf. Accessed 25 June 2007.

Journal names and book titles should be italicized.

For authors using EndNote, Springer provides an output style that supports the formatting of in-text citations and reference list.

EndNote style (zip, 3 kB)

Tables

All tables are to be numbered using Arabic numerals.

Tables should always be cited in text in consecutive numerical order.

For each table, please supply a table caption (title) explaining the components of the table.

Identify any previously published material by giving the original source in the form of a reference at the end of the table caption.

Footnotes to tables should be indicated by superscript lower-case letters (or asterisks for significance values and other statistical data) and included beneath the table body.

Artwork and Illustrations Guidelines

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Supply all figures electronically.

Indicate what graphics program was used to create the artwork.

For vector graphics, the preferred format is EPS; for halftones, please use TIFF format. MSOffice files are also acceptable.

Vector graphics containing fonts must have the fonts embedded in the files.

Name your figure files with "Fig" and the figure number, e.g., Fig1.eps.

Line Art

Definition: Black and white graphic with no shading

Do not use faint lines and/or lettering and check that all lines and lettering within the figures are legible at final size.

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Scanned line drawings and line drawings in bitmap format should have a minimum resolution of 1200 dpi.

Vector graphics containing fonts must have the fonts embedded in the files.

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Definition: Photographs, drawings, or paintings with fine shading, etc.

If any magnification is used in the photographs, indicate this by using scale bars within the figures themselves.

Halftones should have a minimum resolution of 300 dpi.

Combination Art

Definition: a combination of halftone and line art, e.g., halftones containing line drawing, extensive lettering, color diagrams, etc.

Combination artwork should have a minimum resolution of 600 dpi.

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Color art is free of charge for online publication.

If black and white will be shown in the print version, make sure that the main information will still be visible. Many colors are not distinguishable from one another when converted to black and white. A simple way to check this is to make a xerographic copy to see if the necessary distinctions between the different colors are still apparent.

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To add lettering, it is best to use Helvetica or Arial (sans serif fonts).

Keep lettering consistently sized throughout your final-sized artwork, usually about 2–3 mm (8–12 pt).

Variance of type size within an illustration should be minimal, e.g., do not use 8-pt type on an axis and 20-pt type for the axis label.

Avoid effects such as shading, outline letters, etc.

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If an appendix appears in your article and it contains one or more figures, continue the consecutive numbering of the main text. Do not number the appendix figures,

"A1, A2, A3, etc." Figures in online appendices (Electronic Supplementary Material) should, however, be numbered separately.

Figure Captions

Each figure should have a concise caption describing accurately what the figure depicts. Include the captions in the text file of the manuscript, not in the figure file.

Figure captions begin with the term **Fig.** in bold type, followed by the figure number, also in bold type.

No punctuation is to be included after the number, nor is any punctuation to be placed at the end of the caption.

Identify all elements found in the figure in the figure caption; and use boxes, circles, etc., as coordinate points in graphs.

Identify previously published material by giving the original source in the form of a reference citation at the end of the figure caption.

Figure Placement and Size

Figures should be submitted separately from the text, if possible.

When preparing your figures, size figures to fit in the column width.

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Patterns are used instead of or in addition to colors for conveying information (colorblind users would then be able to distinguish the visual elements)

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English language tutorial

Nature Research Editing Service

American Journal Experts

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No data have been fabricated or manipulated (including images) to support your conclusions

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When reporting studies that involve human participants, authors should include a statement that the studies have been approved by the appropriate institutional and/or national research ethics committee and have been performed in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

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APÊNDICE A- FORMULÁRIO QUALITATIVO

Não foram listadas aqui todas as perguntas baseadas na versão reduzida do CPQ(11-14).

Ressalta-se que não serão utilizadas todas as perguntas listadas nesse apêndice devido à natureza flexível da pesquisa qualitativa. Também se espera acrescentar mais perguntas relacionadas ao tópico durante a entrevista de acordo com as respostas dos participantes. Essas perguntas adicionadas serão feitas para elucidar a situação que o participante estará descrevendo.

- 1) O que você entende por qualidade de vida? Como você imagina que seja a vida de alguém que tem qualidade de vida?
- 2) Você acha que a saúde influencia na qualidade de vida de alguém?
- 3) E a saúde da boca?
- 4) Por que você procurou atendimento odontológico?
- 5) Como era sua vida antes de procurar atendimento?
- 6) Como ficou sua vida após o tratamento odontológico?
- 7) Você acha que esse tratamento foi importante para sua vida? Por que?

APÊNDICE B- QUESTIONÁRIO SOCIOECONÔMICO E COMPORTAMENTAL**Questionário****1ª Parte: Dados Socioeconômicos**

Nome da criança: _____

Data de Nascimento: ____/____/____ Sexo: F() M()

1. Você considera seu filho da raça:

()branca; ()negra; ()mulato; ()índio; ()oriental

2. Quantos cômodos têm a casa (exceto banheiro)? _____

3. Quantas pessoas moram na casa: _____

4. Renda familiar: _____ Reais

5. A mãe estudou até: () não estudou; () 1º grau incompleto; () 1º grau completo;
() 2º grau incompleto; () 2º grau completo; () 3º grau incompleto; () 3º grau completo

6. O pai estudou até: () não estudou; () 1º grau incompleto; () 1º grau completo;
() 2º grau incompleto; () 2º grau completo; () 3º grau incompleto; () 3º grau completo