João Marcílio Coelho Netto Lins Aroucha

Disfunção temporomandibular, transtornos alimentares e sintomas depressivos em adolescentes

Recife

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DISFUNÇÃO TEMPOROMANDIBULAR, TRANSTORNOS ALIMENTARES E SINTOMAS DEPRESSIVOS EM ADOLESCENTES

Aprovado em: 08/03/2013

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RECIFE

2013

A minha família e amigos,

que me apoiaram sempre que precisei.

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"A ciência nunca resolve um problema sem criar pelo menos outros dez."

-George Bernard Shaw

Resumo

As disfunçõess temporomandibulares (DTM), os transtornos alimentares (TA) e a sintomatologia depressiva (SD) podem ser encontrados em adolescentes, entretanto, não há artigos publicados que avaliaram a coexistência dessas condições nessa faixa etária. O objetivo desse estudo foi determinar a prevalência de DTM, TA e SD em uma população de adolescentes, além da coexistência dessas disordens e suas associações. Com essa finalidade, 1342 estudantes de vinte escolas públicas estaduais localizadas na cidade do Recife, com idades entre 10 e 17 anos foram avaliados através de exame clínico e questionários auto-aplicáveis. O Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD) foi usado para verificar a presença de DTM, o Eating Attitudes Test – EAT-26 (EAT) para verificar a presença de sintomas de TA, o Bulimic Investigatory Test of Edinburgh (BITE) para identificar sintomas de bulimia or alimentação compulsiva e o Children's Depression Inventory (CDI) para verificar a presença de sintomatologia depressiva. Após análise dos dados, verificou-se que a prevalência de DTM foi de 33.2%. De acordo com o EAT, os sintomas de transtornos alimentares estavam presentes em 29.1% dos adolescentes. De acordo com a escala de sintomas do BITE, 37.2% apresentaram padrão alimentar não usual e 4.5% apresentaram padrão alimentar compulsivo com grande possibilidade de bulimia nervosa, 12,3% tinham gravidade clinicamente significativa e 2.8% um alto grau de intensidade na escala de gravidade do BITE. De acordo com o CDI 17.7% dos adolescentes apresentaram SD. A prevelência de SD foi significativamente maior em adolescentes com TA. Adolescentes com DTM apresentaram uma prevalência mais alta de sintomas de TA de acordo com o EAT e a escala de sintomas do BITE, porém ela foi signifativamente maior apenas de acordo com a escala de severidade do BITE. A prevalência da coexistência de SD e TA de acordo com o EAT e ambas as escalas do BITE em adolescentes foi significativamente maior em adolescentes com DTM. A prevalência da coexistência de sintomas de TA de acordo tanto com o EAT como com o BITE e de SD foi significativamente maior em adolescentes com diagnóstico positivo para o grupo I (desordens musculares). Os resultados desse estudo confirmam que adolescentes com DTM tem maior risco de TA. Atenção especial deve ser dada aos adolescentes com disfunções do grupo I que tem aproximadamente de duas a três vezes -mais chance de apresentar TA, SD e tanto TA como SD. O estudo da comorbidade dessas disordens poderá permitir uma melhor compreensão das suas etiologias e uma abordagem multidisciplinar no tratamento desses pacientes.

Palavras-chave: Síndrome da Disfunção da Articulação Temporomandibular; Transtornos da Alimentação; Depressão; Adolescente.

Abstract

The temporomandibular disorders (TMD), the eating disorders (ED) and the depressive symptoms (DS) can be found in adolescents, although there are no published studies that evaluate the coexistence of those conditions in this age group. The objective of this study was to determine the prevalence of TMD, ED and DS in a population of adolescents, in addition to the coexistence of these disorders and their relationships. With this goal, 1342 students from 20 public state schools located in the city of Recife, aging from 10 to 17 years old were evaluated through clinical examination and self-administered questionnaires. The Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD) was used to access the presence of TMD, the Eating Attitudes Test – EAT-26 (EAT) to verify symptoms of eating disorders, the Bulimic Investigatory Test of Edinburgh (BITE) was used to identify symptoms of bulimia or binge eating and the Children's Depression Inventory (CDI) to assess the presence of depressive symptoms. After the analysis of the data, the prevalence of TMD was 33.2%. According to EAT, ED symptoms were present in 29.1% of the adolescents. According to BITE's symptoms scale 37.2% showed an unusual eating pattern and 4.5% a highly disordered eating pattern and suggestive presence of binge-eating, 12.3% had a clinically significant severity and 2.8% a high degree of severity on BITE's Severity Scale. According to CDI 17.7% of the adolescents showed DS. The prevalence of DS was significantly higher in adolescents with ED. Adolescents with TMD had a higher prevalence of ED symptoms according to EAT and BITE's symptoms scale, but it was significantly higher only according to BITE's Severity Scale. The prevalence of the coexistence of DS and ED according to EAT and both BITE scales was significantly higher in adolescents with TMD. The prevalence of the coexistence of ED symptoms according to both EAT and BITE and depressive symptoms in this study was significantly higher in adolescents with positive diagnostic for group I (muscle disorders). The results of this study confirm that adolescents with TMD have a higher risk for ED. Special attention should be given to adolescents with Group I disorders who have nearly two to three times more chance to present ED, DS and both ED and DS. The study of the comorbidity of those disorders may allow a better understanding of their etiology and a multidisciplinary approach during the treatment of those patients.

Keywords: Temporomandibular Joint Dysfunction Syndrome; Eating Disorders; Depression; Adolescent.

LISTA DE ILUSTRAÇÕES

LISTA DE ABREVIATURAS E SIGLAS

AN – Anorexia nervosa

BED - Binge eating disorder

BITE - Teste de Investigação Bulímica de Edimburgo

BN- Bulimia nervosa

CDI - Children's Depression Inventory

CEP – Comitê de Ética e Pesquisa

CID-10 - Classificação Internacional de Doenças, 10ª edição

CNPq - Conselho Nacional de Desenvolvimento Científico e Tecnológico

DSM-IV - TR - Manual Diagnóstico e Estatístico de Transtornos Mentais, 4ª edição revisada

DTM - Disfunção temporomandibular

EAT - 26 - Teste de Atitudes Alimentares – 26

EPO - Examinador padrão ouro

ET - Examinadores em treinamento

DS - Depressive symptoms

ED - Eating disorders

EDNOS - Eating disorder not otherwise specified

FACEPE - Fundação de Amparo à Ciência e Tecnologia do Estado de Pernambuco

GRE – Gerência Regional de Educação

IBGE – Instituto Brasileiro de Geografia e Estatística

OMS - Organização Mundial de Saúde

RDC/TMD - Research Diagnostic Criteria for Temporomandibular Disorders

TA – Transtornos alimentares

TMD - Temporomandibular disorders

TMJ - Temporomandibular joints

UFPE - Universidade Federal de Pernambuco

WHO - World Health Organization

SUMÁRIO

1. APRESENTAÇÃO

As disfunções temporomandibulares (DTM) e os transtornos alimentares (TA) envolvem a função e a parafunção da cavidade oral, mas, mesmo com a sua alta prevalência na sociedade ocidental, pouco se sabe sobre suas possíveis associações (EMODI-PERLMAN et al., 2008). Poucos estudos investigaram a prevalência de TA em pacientes com DTM (GOLDBERG et al., 2006) e até agora a maioria deles fez apenas associações entre pacientes com diagnóstico de TA e sinais e sintomas de DTM que não permitem uma confirmação do diagnóstico de DTM (GOLDBERG et al., 2006; EMODI-PERLMAN et al., 2008; JOHANSSON et al., 2010).

Um sinal ou sintoma não é sinônimo de DTM, nem leva automaticamente ao diagnóstico de DTM, para fazer associações mais complexas é necessário utilizar índices como o Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD) (EMODI-PERLMAN et al., 2008). A DTM pode ser descrita como um termo coletivo que engloba vários problemas clínicos envolvendo a musculatura da mastigação, as articulações temporomandibulares (ATM) e suas estruturas associadas, com alta prevalência nas populações (CAMPOS et al., 2009).

Os mecanismos envolvidos com a DTM ainda não são compreendidos completamente. Além disso, pontos importantes, tais como prevalência, etiologia, diagnóstico clínico, evolução, prognóstico, necessidade e métodos de tratamento são bastante controversos (ALMEIDA et al., 2005; ROSENBLATT et al., 2006; MANFREDINI; BUCCI; GUARDA-NARDINI, 2007). O diagnóstico da DTM não é fácil, devido à sua multifatorialidade (MANFREDINI; BUCCI; GUARDA-NARDINI, 2007).

A etiologia dos transtornos alimentares não é completamente compreendida devido a sua multifatorialidade (COSTARELLI; ANTONOPOULOU; MAVROVOUNIOTI, 2011). São doenças psicossomáticas associadas com diversas complicações psicológicas e somáticas severas (JOHANSSON et al., 2010), afetam principalmente mulheres jovens e sua frequência vem aumentando (GOLDBERG et al., 2006). Surgem com grande frequência na infância e na adolescência (APPOLINÁRIO; CLAUDINO, 2000) e tem efeitos nocivos na saúde geral e na saúde oral dos adolescentes (XIMENES; COUTO; SOUGEY, 2010).

Existem TA oficialmente reconhecidos como a anorexia nervosa (AN), a bulimia nervosa (BN), a alimentação compulsiva (AC) e os transtornos alimentares não especificados (TANE) (THOMAS; VARTANIAN; BROWNELL, 2009). No mundo ocidental, a anorexia nervosa e a bulimia nervosa são os dois tipos principais de TA, principalmente entre mulheres caucasianas (EMODI-PERLMAN et al., 2008). A alimentação compulsiva não foi reconhecida oficialmente no Manual Diagnóstico e Estatístico de Transtornos Mentais (DSM-IV), mas seus critérios foram fornecidos em um apêndice (WALSH, 2011).

O modelo etiológico mais aceito atualmente para explicar a gênese e a manutenção dos transtornos alimentares é o modelo multifatorial que se baseia na hipótese de que vários fatores biológicos, psicológicos e sociais estejam envolvidos, interrelacionando-se (APPOLINÁRIO; CLAUDINO, 2000).

Comorbidades psicológicas estão associadas tanto aos TA (KATZMAN et al., 1997, GOLDBERG et al., 2006) quanto a DTM (LINDROTH; SCHMIDT; CARLSON, 2002). Sabe-se que problemas psicológicos contribuem tanto para o desenvolvimento de sinais e sintomas de DTM quanto de TA (GOLDBERG et al., 2006). A depressão está associada a uma grande parte das DTM (SELAIMEN et al, 2007), podendo ser considerada como um dos seus fatores etiológicos (TOLEDO; CAPOTE; CAMPOS, 2008). Sintomas depressivos, avaliados segundo a escala QAEH-D e TA de acordo com as escalas EAT e BITE apresentaram associação significativa em adolescentes (XIMENES; COUTO; SOUGEY, 2010).

Sinais e sintomas relacionados à DTM são significativamente mais comuns em pacientes com TA (JOHANSSON et al., 2010). Mais estudos são necessários para determinar as possíveis comorbidades existentes entre pacientes com DTM e TA (EMODI-PERLMAN et al., 2008).

O objetivo desse estudo foi determinar a prevalência de distúrbios temporomandibulares, transtornos alimentares e sintomas depressivos em uma população de adolescentes de 10 a 17 anos, além da coexistência dessas desordens e suas associações.

2 REVISÃO DE LITERATURA

2.1 ARTIGO DE REVISÃO: THE TEMPOROMANDIBULAR DISORDERS AND THE EATING DISORDERS - A LITERATURE REVIEW[1]

The temporomandibular disorders and the eating disorders - A literature review

As desordens temporomandibulares e os transtornos alimentares - Uma revisão de Literatura

TMD and ED a literature review

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[1] Artigo submetido no Trends in Psychiatry and Psychotherapy (ANEXO A) utilizando as normas do mesmo (ANEXO B).

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Abstract

Introduction: The temporomandibular disorders (TMD) and eating disorders (ED) involve the function and parafunction of the oral cavity and exhibit high rates of medical and psychological comorbidity, but little is known about the possible associations between them and few articles evaluated the existence of a relationship between them. **Methods:** A search was conducted on the SciELO, LILACS and PubMed/MEDLINE, databases as well as through handsearching of the references of selected articles and additional bibliographic material as books on the subject to find relevant articles written in English and Portuguese. The descriptors used were temporomandibular disorder and eating disorders. Only studies involving human beings were included and there was no limit established for year of publication. In total, 32 articles were selected and analyzed. **Conclusions:** There is evidence of the correlation between TMD and ED, but this comorbidity must be better understood. The presence of depressive symptoms is an aggravating factor that must be also taken in account during the diagnosis and treatment of those patients.

Keywords: Temporomandibular Joint Disorders; Eating Disorders; Depression; Adolescent.

Resumo

Introdução: As disfunções temporomandibulares (DTM) e os transtornos alimentares (TA) envolvem a função e a parafunção da cavidade oral e apresentam altos índices de comorbidade médica e psicológica, porém, pouco se sabe sobre as possíveis associações entre eles e poucos artigos avaliaram a existência de uma relação entre eles. **Métodos:** Uma busca foi realizada nas bases de dados SciELO, LILACS and PubMed/MEDLINE assim como busca manual das referências dos artigos selecionados e material bibliográfico adicional como livros sobre o assunto para encontrar artigos relevantes escritos em Inglês e Português. Os descritores utilizados foram desordem temporomandibular e distúrbios alimentares. Apenas estudos envolvendo seres humanos foram incluídos e não há limite estabelecido para o ano de publicação. No total, os artigos 32 foram seleccionados e analisados. **Conclusões:** Há evidências da correlação entre DTM e TA mas essa comorbidade precisa ser melhor compreendida. A presença de sintomas depressivos é um fator agravante que também precisa ser levado em consideração durante o diagnóstico e tratamento desses pacientes.

Palavras-chave: Transtornos da Articulação Temporomandibular; Transtornos da Alimentação; Depressão; Adolescente.

Introduction

The temporomandibular disorders (TMD) and the eating disorders (ED) involve the function and parafunction of the oral cavity, but even with their high prevalence in Western society, little is known about their possible associations.[1] The presence of TMD and ED in a patient should be considered by health professionals involved with the treatment of those disorders, due to the fact that one can aggravate the other and even lead to unsuccessful treatment. Even though, there are relatively few reports of physical impairment in TMD patients, especially with regard to difficulty of food intake[2] and few studies investigated the prevalence of ED in patients with TMD or chronic facial pain.[3]

TMD is a generic term for a number of clinical signs and symptoms involving the masticatory muscles, the temporomandibular joints (TMJ), and associated structures.[4]. Signs and symptoms of TMD, characterized as musculoskeletal pain conditions in the face and/or the TMJ, have been demonstrated in, practically, all examined populations.[5]

ED are psychosomatic diseases, associated with numerous severe physiologic and somatic complications.[5] They affect primarily young women and their frequency is increasing.[3] In the Western world, anorexia nervosa and bulimia nervosa are the two main types of ED, particularly among Caucasian women.[1]

It is known that orofacial pain can interfere with daily activities of the patient and the most common consequences are psychological,[6] in addition, psychological issues contribute to the development of both chronic pain and eating disorders.[3] The coexistence of TMD and ED combined with the presence of depressive symptoms

could create a vicious circle where each conditions strengthens the effects of the other ones.

Methods

Articles were retrieved through a search carried out on the SciELO, LILACS and PubMed/MEDLINE, databases as well as through handsearching of the references of selected articles and additional bibliographic material as books on the subject. The descriptors used were temporomandibular disorder and eating disorders

The research was restricted to articles written in English and Portuguese. Only studies involving human beings were included and there was no limit established for year of publication. In total, 32 articles were selected and analyzed.

Temporomandibular disorders

The prevalence of the signs and symptoms of TMD varies depending on the studied population.[3] Various kinds of disabilities in daily activities of TMD patients have been evaluated.[7] It is already known that those patients may present pain and difficulty in daily activities.[6,8-11] Among them, pain during mouth opening and difficulty in eating.[2,7-9,12-17] . Orofacial pain resulting from TMD affects social interactions and daily behaviors.[18]

The presence of TMD could lead to further impairment of ED patients. Examination of the relationship between the signs and symptoms of TMD and the ability to take in food is important for a better understanding of the impairment levels of TMD patients.[2] Although there are several aspects of jaw dynamics in masticatory movements, researches published before Haketa (2006) were limited to studying the abstract measures of masticatory activities such as eating hard/soft foods or chewing foods.[2]

The chewing ability correlates with dysfunction of the TMD patients.[19] TMD patients may decrease the masticatory activity in order to avoid the increase in facial pain.[12,20] They are also likely to reduce their intake of dietary fiber.[20] Concerns about types of food and food intake behavior should be taken into account for each TMD subtype in the management of TMD patients.[2]

Eating disorders

The etiology of ED is not clearly understood due to its multifactorial nature.[21] The etiology of anorexia nervosa (AN) and bulimia nervosa (BN) is multifactorial with biologic, psychological and sociologic factors contributing to the determinants of these disorders.[3]

The salient features of Anorexia Nervosa are a relentless pursuit of thinness through dieting and exercise associated with intense fear of gaining weight or becoming fat despite the achievement of a significantly low body weight.[22] Patients with anorexia nervosa tend to feel fat, even when they are extremely thin, it is

characterized by the refusal to maintain a minimal normal weight in accordance with age and height, self-starvation, drastic weight loss, and thinness.[1,23]

Individuals with Bulimia Nervosa are typically women of normal weight in their teens or early twenties who are very concerned about their shape and weight.[22] Bulimia nervosa comprises dieting, bingeing, and purging with usually normal body weight.[23] Those who have Bulimia nervosa present repeated episodes of uncontrolled eating attacks (binge eating), which are characterized by accelerated consumption of large quantities of food within a short period of time, followed by compensatory behavior, such as vomiting, use of laxatives, urinating drugs and/or other medication, and fasting or exaggerated sports activity.[1,22] When not binge eating, individuals with Bulimia Nervosa markedly restrict their food intake, leading to a vicious cycle of binge eating followed by food restriction in an attempt to compensate which then leads to increased appetite, setting the stage for another episode of binge eating.[22]

Vomiting is a prevalent and potentially destructive symptom of ED, with significant dental and medical morbidity. It is accompanied by extreme, sudden and unconventional mouth opening. Apparently the vomiting activity affects both the masticatory muscles and tendons, leading to the development of myofascial symptoms.[1] Self-induced vomiting, binge eating and duration of the ED could also be factors which promote orofacial pain symptoms.[5]

Binge Eating Disorder was not formally recognized in DSM-IV, but criteria were provided in an appendix for further study. The hallmark feature of Binge Eating Disorder is the occurrence of recurrent episodes of binge eating in the absence of the

inappropriate compensatory behavior characteristic of individuals with Bulimia Nervosa.[22]

Temporomandibular disorders and eating disorders

Recent studies have suggested that there is evidence of the coexistence of symptoms associated with TMD among ED patients.[3] There is a significantly higher prevalence of clinical TMD signs and symptoms in ED patients.[5]

ED patients present a higher sensitivity to palpation of the superficial masticatory muscles than healthy individuals.[1] It is commonly believed that many patients presenting with AN also complain of chronic musculoligamentous pain.[3] It is therefore likely that the TMD symptoms presented by the ED patients are of muscular origin.[5]

It is important that health professionals inquire their ED patients about the presence of facial pain,[3] as symptoms such as headache and facial pain are significantly more prevalent among ED patients than in patients without ED.[5]

ED patients generally have a higher risk (or tendency for comorbidity) for TMD and related problems and purging behaviors, like vomiting, and binge eating possibly further enhance that risk/comorbidity.[5] The act of vomiting may be detrimental to the stomatognathic apparatus, it could be considered as a predisposing, initiating, or perpetuating factor of TMD.[1]

Special emphasis should be made to those who report purging behaviors and/or binge eating.[5] One of the consequences of self-triggered vomiting is extreme, unconventional mouth opening, which can lead to dislocations or subluxations of the condyle[1,25] . The mechanical pressure exerted by frequent self-triggering of vomiting, especially when initiated with the fingers, combs, pins, or other hard objects, may lead to damage resembling that sustained during intubations for general anesthesia.[24]

Temporomandibular disorders, eating disorders and depressive symptoms

The comorbid occurrence of TMD, eating disorders and depression may complicate and perpetuate the entire symptom complex.[3] Depression is a common characteristic among individuals with TMD,[25] and several studies have reported moderate to severe depression in patients with TMD.[7,13]

Various psychologic signs and symptoms are comorbid with TMD[26] and patients with TMD present psychopathology rates above the average for the general population.[27] Studies have found significant association between emotional status and pain, while eating or opening of the mouth.[14] Patients with moderate and severe depression had significantly higher scores for limitation related to mandibular functioning than normal patients.[13]

ED, in general, are also associated with serious psychological complications.[28] ED patients show significantly higher emotional and psychologic distress compared

to patients without ED,[1] and both AN and BN are associated with high rates of medical and psychiatric comorbidity.[3]

Adolescents with disordered eating attitudes, a potential precursor to eating disorders, seem to have certain psychosocial characteristics, which differentiate them from the students with healthier eating attitudes.[21] Patients with chronic ED may be more susceptible to pronounced emotional and psychologic stress than healthy individuals.[1]

TMD, ED and DS in women

Interest in gender differences in health is growing, but more knowledge is required for some specifically female health issues. Dental clinicians must be aware that some women may have gender-specific oral health requirements.[23] Compared with women without TMD, women with TMD present greater intensity of pain symptoms, teeth clenching, trouble sleeping, sensitivity to pain in the masticatory and neck muscles and lower quality of life,[29] higher general muscular sensitivity to palpation and higher emotional and psychologic distress.[1]

The incidence of TMD in women about twice that than in men. The prevalence of women seeking treatment for TMD is even higher, with a 4:1 ratio.[23] A sign that those disturbs have a higher incidence in women is that most researches present samples with more women than men[2,5-9,11,13,20] or samples and case reports with only women.[1,3,12,16,17,29]

The prevalence of TMD, ED and DS is higher in women, the possibiliy of comorbidity among those disorders only strengthens the need of a multidisciplinary approach in order to provide a more holistic and comprehensive treatment.[23]

Diagnosis and Treatment

When a patient presents any of the disorders above, the ideal would be to check the presence of the others. In the case of TMD a single symptom or sign from the masticatory system is not synonymous with TMD; nor does it automatically lead to a TMD diagnosis, so the use of indices like the RDC/TMD allow more complex associations as their value is based on multiple variables (Emodi-Pearlman, 2008).

It is essential that the presence of psychological conditions is identified early in the initial management of TMD, as failure to do so may lead to unsuccessful treatment results and worsening of the patient's condition.[1] In the same way, if TMD signs and symptoms, like facial pain, are not perceived and treated, their presence could lead to a negative influence on the treatment of the ED.[3]

Orofacial pain and TMD related signs and symptoms are significantly more common in ED patients than in patients without ED.[5] TMD pain may impair dietary intake to the point where patients with eating disorders are further compromised.[30] So, during the treatment of TMD patients, the types of food and food intake behavior should be taken into account for each TMD subtype.[2]

ED patients should also be examined for orofacial pain and associated signs and symptoms of TMD.[5] Dentists are often the first health professionals to recognize

relevant signs of ED through their oral manifestations so it is important that they know those signs and symptoms and their possible consequences during the evaluation and treatment of the patients and refer the patient to a multidisciplinary team.[1,31,32]

Facial pain could have a negative influence on the treatment of the eating disorder so it is important to consider that the treatment of patients with chronic facial pain may have implications for the treatment of people suffering from eating disorders. The presence of depression could have practical implications in the treatment of these populations, so for a patient that presents both disorders, the need for treatment in a multidisciplinary setting would take on greater significance.[3]

Further research is necessary to better understand the possible comorbidity between TMD and ED.[1,3] Ideally, a clinical examination should be included in future studies of this association.[3] Preferably, the analysis of TMD should not be made solely from signs or symptoms, but using indices such as the RDC/DTM.[1]

Conclusions

There is evidence of the correlation between temporomandibular disorders and eating disorders, but this comorbidity must be better understood. The presence of depressive symptoms is an aggravating factor that must be also taken in account during the diagnosis and treatment. Maybe some of the lacks in the comprehension of those disturbs are the result of their analysis as separate conditions while a patient may present them as interconnected occurrences.

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3.OBJETIVOS

3.1 OBJETIVO GERAL

Determinar a prevalência de disfunções temporomandibulares, sintomas de transtornos alimentares e sintomatologia depressiva em uma população de adolewscentes de 10 a 17 anos.

3.2 OBJETIVOS ESPECIFICOS

-Verifricar a coexistência de disfunções temporomandibulares, sintomas de transtornos alimentares e sintomatologia depressiva nessa população.

-Identificar diferenças nas prevalências dessas desordens de acordo com a idade dos dolescentes.

4. **METODOLOGIA**

4.1 DESENHO DO ESTUDO

Esse é um estudo do tipo corte transversal, ele fornece um retrato de como as variáveis estão relacionadas em um determinado momento. É um bom método para se detectar frequências das doenças, assim como identificar os grupos, na população, que estão afetados (PEREIRA, 2002).

4.2 ÁREA DE ESTUDO

Esse estudo foi desenvolvido na cidade do Recife, capital do estado de Pernambuco. A cidade de Recife possui 218 km^2 de extensão territorial, com uma população de 1.537.704 habitantes (IBGE, 2010).

4.3 POPULAÇÃO DE ESTUDO E PERÍODO DE REFERÊNCIA

Em decorrência de estudos anteriores não terem encontrado diferenças significativas entre estudantes de escolas públicas e privadas, o estudo foi realizado somente em escolas públicas estaduais (XIMENES et al., 2004).

De acordo com a relação fornecida pela Secretaria de Educação do Estado de Pernambuco – 2009, a cidade está dividida em duas Gerências Regionais (GERE), Norte e Sul, (Figura 1), possuindo 165 escolas públicas estaduais em todo o município, que possuem alunos de 10 a 19 anos de idade.

Legenda

Gerência Norte – *1,2,3,4,9,10,11*

Gerência Sul – *5,6,7,8,12,13,14*

Figura 1- Mapa Geral da cidade do Recife
Fonte: Prefeitura do Recife

A população estudada é formada por pré-adolescentes e jovens, correspondendo a faixa etária de 10 a 17 anos, de ambos os sexos matriculados em escolas públicas estaduais de Recife no ano de 2012. O critério de adolescência da Organização Mundial de Saúde (OMS) considerada adolescentes pessoas entre 10 a 19 anos de idade (WORLD HEALTH ORGANIZATION, 2006) porém não existe uma escala validada no Brasil que abrangesse essa faixa etária para avaliar a sintomatologia depressiva. O instrumento escolhido foi o Inventário de Depressão Infantil (CDI) que é um dos instrumentos mais utilizados, nacional e internacionalmente, para avaliar sintomas depressivos em crianças e adolescentes de 7 a 17 anos, tanto nos contextos clínicos como de pesquisa (WATHIER; DELL'AGLIO; BANDEIRA, 2008).

A divisão em duas Gerências Regionais foi feita de acordo com critérios político-administrativos, porém existem outras divisões da cidade do Recife que contemplam aspectos sócio-econômicos, como é o caso das Unidades de Desenvolvimento Humano (UDHs) que são feitas baseadas no Índice de Desenvolvimento Humano (IDH) que sintetiza em uma média de três subíndices, calculados na base de poucos indicadores facilmente coletados, três dimensões básicas e universais da vida: o acesso ao conhecimento (Educação), o direito a uma vida longa e saudável (Longevidade) e o direito a um padrão de vida digno (Renda). Pela sua

simplicidade, o IDH não aprofunda cada uma dessas dimensões, mas permite comparar o nível geral alcançado pelas nações no atendimento dessas necessidades básicas para que os indivíduos possam desenvolver suas capacidades e suas escolhas (BITOUN, 2005).

Neste estudo, além de contemplar escolas de ambas as GEREs estas serão sorteadas de modo a contemplar diferentes UDHs.

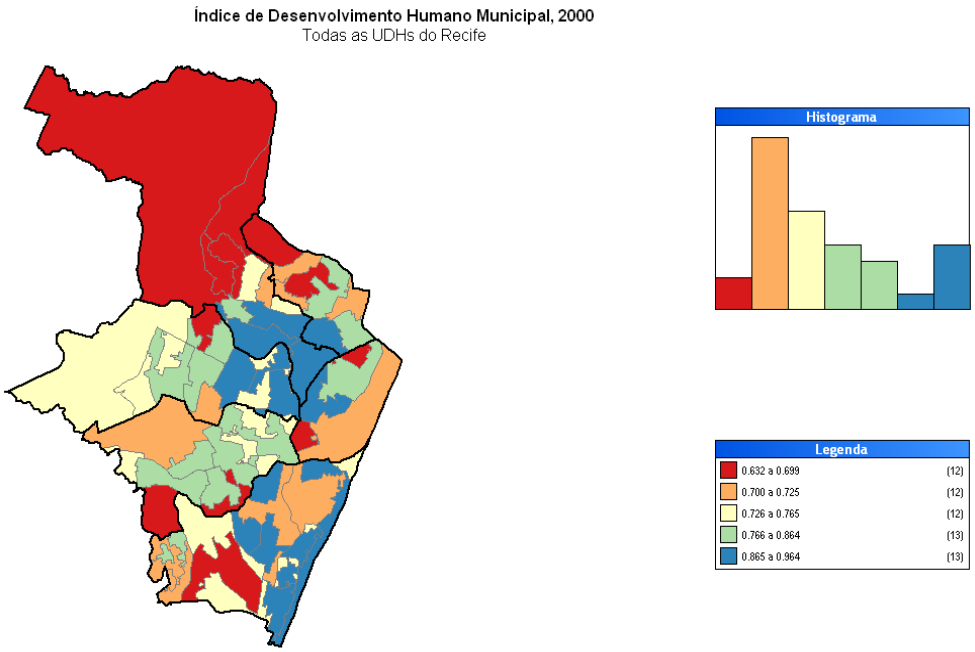

Figura 2 – Divisão do Recife em UDHs

Fonte: Atlas do Desenvolvimento Humano do Recife

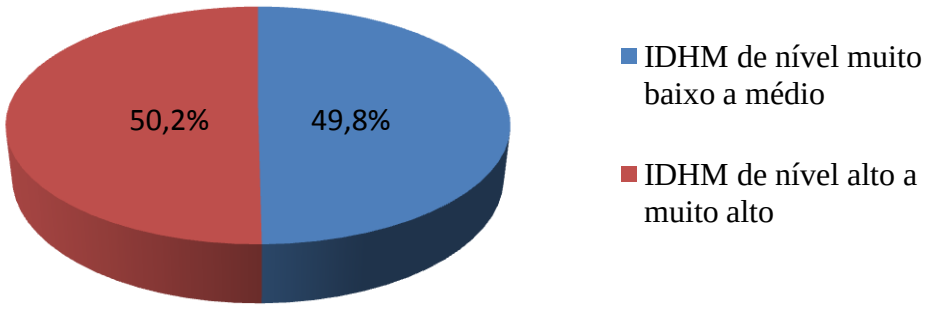

Gráfico 1 – Distribuição da amostra de acordo com o IDHM da UDH das escolas

4.4 AMOSTRA

Foi adotada a amostragem por conglomerados que correspondem as 20 escolas sorteadas. Os critérios de inclusão para os alunos foram: idade entre 10 e 17 anos, independente de gênero; estar regularmente matriculado e frequentando as atividades escolares formais no estabelecimento de ensino escolhido e autorização para participar da pesquisa pelo pai ou responsável, por meio da assinatura do TCLE (Apêndice A).

Alunos com necessidades especiais mentais que dificultariam o entendimento dos questionários auto-aplicáveis fopram excluídos desse estudo.

O tamanho da amostra foi calculado a partir da população de estudantes matriculados na rede estadual em Recife na faixa etária alvo da pesquisa. Segundo a Secretaria Estadual de Educação de Pernambuco havia, em 2012, 87.628 estudantes matriculados na rede estadual com idades entre 10 e 17 anos. Foi utilizado o programa EPI-INFO versão 6.04 para DOS para determinar o tamanho da amostra, utilizando erro de 3,0%, confiabilidade de 95,0% e proporção esperada de 33,1% de sintomas de transtornos alimentares (XIMENES; COUTO; SOUGEY, 2010). A prevalência de transtornos alimentares foi utilizada devido a semelhança das características da amostra da pesquisa de Ximenes (2010) com esta pesquisa e a ausência de material publicado sobre a prevalência de DTM utilizando o RDC/DTM em uma população na mesma faixa etária e com características semelhantes

Para o cálculo da amostra, foi utilizada a fórmula:

$$m = \frac{z^2 p_e (1 - p_e)}{e^2}$$

$$n = \frac{m}{1 + \frac{m-1}{N}}$$

Onde:

m = Tamanho amostral

z = Valor da curva normal relativa à confiabilidade de 95,% (1,96);

p_e = Proporção esperada igual a 0,331;

e = erro de 3,0% (0,03);

N = tamanho populacional igual a 87.628 adolescentes.

n= amostra

Sendo assim, foram totalizados 1055 jovens. Este valor foi multiplicado por 1.2, por conta do efeito cluster, resultando em 1.266, acrescido de 20%, para que eventuais perdas não comprometessem a representatividade da amostra, o número total de adolescentes avaliados foi de 1.519. Depois de eventuais perdas, o número total ficou em 1.342.

4.5 INTRUMENTOS UTILIZADOS

- Questionário Sócio-Biodemográfico (Apêndice B);
- Critérios de Diagnóstico das Desordens Temporomandibulares (RDC/TMD) (Anexo G);
- Escalas para rastreamento de transtornos da alimentação: EAT -26, Teste de Atitudes Alimentares, "*Eating Attitudes Test"* (Anexo H) e o BITE - Teste de Avaliação Bulímica de Edinburgh, "*Bulimic Investigatory Test of Edinburgh"*, versão para adolescentes (Anexo I);
- Inventário de Depressão Infantil (CDI) (Anexo J).

As escalas autoaplicáveis como o EAT, o BITE e o CDI permitem uma rápida aplicação em grande número de indivíduos, são econômicas e objetivas, além de admitir que os respondentes possam responder sem a possível vergonha de uma entrevista face a face. Entretanto, por não avaliar com exatidão alguns conceitos estes instrumentos não permitem uma resposta diagnóstica. (CONTI; SLATER; LATORRE, 2009; NUNES et al, 2006; PERES, SANTOS, 2006).

4.5.1 Questionário Sócio-Biodemográfico

O Questionário Sócio-Biodemográfico foi desenvolvido pelo grupo de pesquisa, acrescido de questões do questionário de Critério de Classificação Econômica Brasileira (CCEA, 2011) e da Associação Brasileira de Empresas de Pesquisa – ABEP.

4.5.2 Identificação de adolescentes com sintomas de DTM

O Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD) (DWORKIN; LeRESCHE, 1992), foi utilizado para verificar a presença de desordens

temporomandibulares, o instrumento já se encontra adaptado culturalmente para a população brasileira (KOSMINSKY et al, 2004) e validado (LUCENA et al, 2006). O RDC/TMD inclui o eixo I que consiste em uma avaliação física e um protocolo diagnóstico e o eixo II que avalia as condições psicológicas do indivíduo e incapacidades relacionadas à dor (SCHIFFMAN et al., 2010).

A palpação dos músculos e das articulações em relação à sensibilidade requer o pressionamento de locais específicos, usando a ponta ou o aspecto ventral da ponta do dedo indicador ou deste dedo junto com o médio, com uma pressão padronizada de acordo com os seguintes critérios (DWORKIN; LeRESCHE,1992):

A palpação deve ser realizada com aproximadamente 900 gramas de pressão para os músculos extra-bucais e 450 gramas de pressão para as ATMs e músculos intra-bucais. Os músculos de cada lado da face devem ser palpados separadamente, usando a mão oposta para estabilizar a cabeça. A mandíbula do paciente é posicionada em uma posição de repouso, sem que os dentes estejam se tocando e os músculos em um estado passivo. Quando necessário, para verificar e identificar o local correto de palpação pode-se pedir para o paciente contrair levemente a musculatura, apertando ligeiramente os seus dentes e relaxando posteriormente para a execução da palpação. Devido ao fato de que os locais da sensibilidade variam entre os pacientes, até mesmo dentro do mesmo músculo, a área inteira do músculo será palpada, quando necessário, a fim de não fracassar na detecção de áreas sensíveis que possam estar presentes. Durante o exame será pedido ao paciente, quando necessário, determinar se este sentiu dor ou somente pressão. No caso de ter sentido dor está será classificada como: leve (1), moderada (2) e severa (3). Quando for relatada somente pressão ou experiência dolorosa negativa a classificação será (0) (DWORKIN; LeRESCHE,1992).

A adaptação cultural do questionário Eixo II do RDC/TMD foi executada a partir da tradução inglês-português. Dentre as 31 questões da versão inglês-português, 28 tiveram alterações ortográfica, idiomática, cultural ou semântica. As questões referentes aos dados sociodemográficos foram adaptadas à população brasileira, baseando-se no IBGE (2000). O processo de adaptação cultural resultou em um instrumento com linguagem de fácil entendimento, apresentando equivalência idiomática e cultural aplicável para a população brasileira (LUCENA et al, 2006).

4.5.3 Identificação de adolescentes com sintomas de transtornos alimentares

A identificação dos adolescentes que apresentam sintomas de transtornos alimentares foi feita através de questionários auto-aplicáveis: o Teste de Atitudes Alimentares (Eating Attitudes Test – EAT-26) e o Teste de Avaliação Bulímica de Edinburgh – BITE.

O Teste de Atitudes Alimentares (*EAT)* (GARNER et al., 1982) está validado para o português (NUNES et al., 1994; BIGHETTI et al., 2004). Na escala original de 40 itens havia itens redundantes que não aumentavam o poder preditivo da escala, assim os autores excluíram 14 desses itens constituindo assim a EAT-26 que apresenta grande correlação com a escala original e mede principalmente comportamentos alimentares restritivos, como dieta e jejum, e comportamentos bulímicos, como a ingestão excessiva de alimentos e vômitos provocados, indicando a presença de padrões alimentares anormais. Foi verificado que o EAT-26 detecta casos clínicos em populações de alto risco e identificava indivíduos com preocupações anormais com relação à alimentação e peso, sendo ideal para estudos de rastreamento e para identificar precocemente a presença de TA (DOTTI; LAZZARI, 1998; CORDÁS; NEVES, 1999; GARNER et al., 2000; NUNES et al, 2001; VILELA et al, 2004).

O Teste de Avaliação Bulímica de Edinburgh (BITE) (HENDERSON; FREEMAN, 1987), foi desenvolvido para o rastreamento e a avaliação da gravidade da bulimia nervosa a partir da avaliação de aspectos cognitivos e comportamentais. Foi traduzido para o português como Teste de Avaliação Bulímica de Edimburgo (CORDÁS; HOCHGRAF, 1993). Este teste fornece os resultados em duas escalas: uma de sintomas e outra de gravidade. Um escore igual ou maior que 20 na escala de sintomas indica comportamento de compulsão alimentar com grande possibilidade de bulimia; já um escore entre 10 e 19 sugere um padrão alimentar não usual, necessitando avaliação por uma entrevista clínica. Na escala de gravidade, escores maiores que cinco indicam gravidade significativa e escores maiores ou iguais a dez indicam grande intensidade. Um escore significativo nessa escala deve ser melhor avaliado independente do resultado na escala de sintomas. Um escore alto pode significar a presença de vómito psicógeno ou abuso de laxantes, na ausência de compulsão alimentar (NUNES et al, 2006). O BITE foi validado para adolescentes brasileiros apresentando uma concordância de boa a excelente e com um grau razoavelmente elevado de consistência interna (XIMENES; COUTO; SOUGEY, 2010; XIMENES et al, 2011).

4.5.4 Identificação de adolescentes com sintomas depressivos

O Inventário de Depressão Infantil (CDI) (KOVACS, 1983, 1985, 1992, 2003) já foi validado para o Brasil (GOUVEIA et al., 1995). O CDI foi criado a partir de uma adaptação

do Beck Depression Inventory para adultos, tendo como objetivo verificar a presença e a severidade de sintomas de depressão em jovens de sete a dezessete anos, a partir de seu auto-relato. Contém 27 itens e tem sido descrito como psicometricamente satisfatório em diversos países (WATHIER; DELL'AGLIO; BANDEIRA, 2008).

4.5.5 Calibração

4.5.5.1 Sessão de pré-calibração dos examinadores em treinamento (ET)

Dois avaliadores, um com experiência prévia com o RDC/TMD, (examinador padrão ouro) realizaram uma calibração de 12 horas do International RDC/TMD Consortium. Outros dois avaliadores (examinadores em treinamento) foram treinados e calibrados pelos dois primeiros.

Os ET leram o RDC/TMD várias vezes, até que assimilaram os itens de análise, sequência do exame RDC/TMD e as especificações por escrito para a realização do exame clínico (Eixo I). Depois assistiram ao vídeo do treinamento do exame RDC/TMD (disponível em: http://www.rdc-tmdinternational.org/).

Os ET praticaram então a aplicação manual de 0,45 e 0,90 Kg de pressão em uma balança digital preparada unicamente para este propósito, após isto eles aplicaram o exame em si mesmos enquanto outro ET registrou as anotações no formulário. Durante estas etapas, foi permitido ao examinador levar as especificações por escrito do formulário RDC/TMD para conferência durante os exames, ficando isso a critério dos mesmos

4.5.5.2 Sessão de treinamento e prática

O examinador padrão ouro (EPO) forneceu uma visão geral dos procedimentos do exame e realizarou o exame RDC/DTM nos ET. Após isso os ET praticaram em outras pessoas, incluindo os outros ET e repetiram essas etapas tantas vezes quanto foram necessárias e até o EPO ter determinado que o ET estva capacitado para o aplicar o RDC/TMD eixo I.

O diagnóstico da DTM de acordo com o RDC/TMD é dividido em Grupo I que inclui as desordens musculares, Grupo II que está relacionado com a presença de deslocamento de disco e Grupo III que verifica a presença de artralgia, artrite e artrose. Tanto o diagnóstico do

Grupo II como o do Grupo III são feitos separadamente para cada articulação (direita e esquerda).

4.5.5.3 Sessão de calibração

Todas as etapas das sessões de treinamento e prática foram realizadas com todos os ET. Os exames completos foram realizados com um auxiliar atribuído a cada examinador. Todos os examinadores examinaram os mesmos pacientes, a fim de observar, discutir e amenizar as diferenças nos procedimentos de exame.

Além de anotar os dados de cada exame o auxiliar foi instruído a observar e registrar variações observadas na técnica de exame e instruções aos pacientes entre os ET. Após isso o EPO e os ET se reuniram para analisar os resultados dos exames de cada ET. Os dados foram analisados, revisados, e discutidos e os pacientes em que houve discrepância nos resultados foram reexaminados.

4.5.5.4 Sessão do estudo de confiabilidade

Foi conduzida com um EPO e 3 ET, o Índice Kappa foi utilizado para a avaliação da consistência inter examinadores e os dados produzidos foram organizados e transcritos em planilhas eletrônicas para a realização dos testes estatísticos.

A calibração foi feita com alunos de uma escola pública sorteada aleatoriamente, os alunos foram avaliados pelo EPO e os 3 ET sendo cada examinador acompanhado por um anotador. Os valores dos Grupo I, II e III foram respectivamente de 0,96, 0,92 e 0,82 sendo considerados de ótima concordância, esses resultados foram considerados como adequados para a realização da pesquisa (LANDIS; KOCH, 1997).

4.6 PROCEDIMENTO DE COLETA

As coletas foram realizadas nas próprias escolas em sala, nos intervalos das atividades. Os alunos participam da coleta em seu turno de frequência após a entrega do termo de consentimento assinado por ele e por seu responsável.

As etapas da coleta foram assim divididas:

A. Sorteio das escolas, a partir de lista fornecida pela Secretaria de Educação de PE, contemplando as diferentes UDHs.

B. Realização de contato com a direção da escola para a possibilidade de realização da pesquisa.

C. Explicação da metodologia de pesquisa aos alunos e entrega dos termos de compromissos àqueles interessados em participar do estudo. Este termo deverá ser assinado pelos alunos e por seus responsáveis.

D. Aplicação dos instrumentais escolhidos: o questionário biodemográfico, o questionário para o diagnóstico psicológico e psicossocial dos indivíduos com desordens temporomandibulares (RDC/TMD), o Teste de Atitudes Alimentares (*Eating Attitudes Test* – EAT-26), o Teste de Avaliação Bulímica de Edinburgh – BITE e o Inventário de Depressão Infantil (CDI). Os auxiliares foram treinados para explicar o preenchimento dos questionários e para realizar a entrevista do Eixo II do RDC/TMD a fim de evitar a ocorrência de um erro sistemático que poderia ocorrer devido ao examinador conher as respostas da entrevista do adolescente (CICCHETTI; FEINSTEIN, 1990).

4.7 ESTUDO PILOTO

Após o Consentimento formal da Comissão de Ética em Pesquisa (CEP) da UFPE (protocolo 0131.0.172.000-11), foi desenvolvido um projeto piloto com a intenção de avaliar as condições de aplicabilidade dos instrumentos necessários à realização da pesquisa.

O projeto piloto foi realizado em uma escola pública estadual na cidade do Recife onde pesquisador e assistentes avaliaram 136 adolescentes utilizando os questionários, sob as condições propostas para a pesquisa.

Após a realização do projeto piloto foi iniciada a etapa de coleta de dados propriamente dita, onde foram examinados os adolescentes de escolas públicas estaduais na cidade do Recife.

4.8 ANÁLISE DOS DADOS

Para análise dos dados foram obtidas distribuições absolutas, percentuais uni e bivariadas e foi utilizado o teste Qui-quadrado de Pearson ou o teste Exato de Fisher quando as condições para utilização do teste Qui-quadrado não foram verificadas.

A margem de erro utilizada utilizada nas decisões dos testes estatísticos foi de 5% e os intervalos foram obtidos com 95,0% de confiança.

O programa estatístico utilizado para digitação dos dados e obtenção dos cálculos estatísticos foi o SPSS (Statistical Package for the Social Sciences) na versão 17.

5 RESULTADOS E DISCUSSÃO

5.1 ARTIGO ORIGINAL: TEMPOROMANDIBULAR DISORDERS, EATING DISORDERS AND DEPRESSIVE SYMPTOMS IN ADOLESCENTS[2]

Temporomandibular disorders, eating disorders and depressive symptoms in adolescents

TMD, ED and depressive symptoms in adolescents

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[2] Artigo submetido no Journal of Pediatrics (ANEXO C) utilizando as normas do mesmo (ANEXO D)

Abstract

Objective(s): To determine the prevalence of temporomandibular disorders (TMD), eating disorders (ED) and depressive symptoms (DS) in a population of adolescents, in addition to the coexistence of these disorders and their relationships. **Study design:** 1342 students between 10 and 17 years of age, from both sexes, enrolled in state public schools were evaluated for the presence of TMD, ED and DS through the RDC/TMD, *EAT-26 and BITE, and CDI* respectively. Pearson´s chi-square for qualitative variables was used to evaluate differences between groups. A 5% margin of error with a 95% confidence interval was used for the results ($P < 0.05$). **Results:** On this sample 33.2% presented TMD; ED symptoms were present in 29.1% according to EAT-26 and according to BITE's symptoms scale 37.2% showed an unusual eating pattern and 4.5% a highly disordered eating, also 12.3% had a clinically significant severity and 2.8% a high degree of severity on BITE's Severity Scale. According to CDI, 17.7% of the adolescents showed DS. The presence of DS and the coexistence of ED and DS was higher in adolescents with diagnostic for TMD and for group I (muscle disorders) ($P < .001$). TMD patients with positive diagnostic for the group I had higher prevalence of ED according to EAT (38.5%, $P = 0.020$) BITE's Symptom Scale (53.8%, $P = 0.005$) and BITE's Severity Scale (27.4%, $P < .001$). **Conclusion(s):** Adolescents with TMD have a higher prevalence of DS and of the coexistence of DS and ED. Also adolescents with group I disorders have significantly higher prevalence of ED, DS and ED with DS.

Keywords: Temporomandibular Joint Disorders; Eating Disorders; Depression; Adolescent.

Introduction

Recent studies verified the coexistence of temporomandibular disorders (TMD) and eating disorders (ED) but so far most of them only made associations between patients with ED diagnostics and signs or symptoms of TMD that does not allow a confirmation of the TMD diagnosis.[1-3]

Signs and symptoms of TMD are significantly more common in ED patients.[3] The TMD encompasses many clinical problems involving the masticatory muscles, temporomandibular joints (TMJ) and associated structures with high prevalence in populations.[4,5] The prevalence, etiology, clinical diagnosis, progression, prognosis, and the need and methods of treatment of TMD are quite controversial.[6-8] The diagnosis of TMD and the etiology of TMD and ED is not clearly understood due to their multifactorial nature.[8,9] ED have harmful effects on general health, and more specifically on oral health in adolescents.[10]

Depression is associated with a large part of the ED and TMD[10,11] and it can be considered one of TMD etiological factors.[12] Psychological and emotional factors are frequent in patients with TMD.[13] Knowledge of the interactions between physical symptoms and psychosocial factors is essential to improve the understanding of TMD and to tailor treatment strategies.[14]

The objective of this study was to determine the prevalence of TMD, ED and depressive symptoms (DS) in a population of adolescents aging from 10 to 17 years, in addition to the coexistence of these disorders and their relationships.

Methods

Adolescents aged 18 and 19 were not included in this study due to limitation of the instrument used do evaluate DS, which has an age range from 7 to 17 years old. Students with mental disabilities which would make it difficult to read and understand the self-answering questionnaires were also excluded from this study. This study was approved by the Institutional Review Board/Research Ethics Committee of the Federal University in Pernambuco, Brazil, the State Department of Education and the schools principals.

According to the State Secretariat of Education of Pernambuco, there were 87.628 students aged from 10 to 17 years, enrolled in state public schools in 2012. The sample size was calculated with a margin of error of 3% and a confidence level of 95% and expected prevalence of 33.1%[10] the total was 1055. This number was multiplied by 1.2 because of the cluster effect and it was increased by 20%, so eventual losses do not compromise the research. The final number of evaluated adolescents was 1519. After eventual losses the total was 1342 students.

During a 10-month period, a total of 1342 students from 20 public state schools located in the city of Recife, aging from 10 to 17 years old were evaluated through clinical examination and self-administered questionnaires for TMD, ED and DS. The adolescents were examined at their schools, in a separate room, during class intervals. Written informed consent was obtained from the adolescents and the parents or legal guardians.

All the instruments used in this study were already translated and validated for Brazilian Portuguese language. The Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD) was used to access the presence of

TMD.[15] The TMD diagnoses were made using clinical criteria and previous history of the patients. The diagnoses were divided in three groups: muscle disorders (group I); disc displacements (group II); and arthralgia, arthritis, arthrosis (group III).

The Brazilian version of the Eating Attitudes Test – EAT-26 (EAT) was used to verify symptoms of ED.[16] The Bulimic Investigatory Test of Edinburgh (BITE) was used to identify symptoms of bulimia or binge eating, it consists of two subscales: the Symptom Scale, which measures the degree of symptoms present, and the Severity Scale, which provides an index of the severity of bingeing and purging behavior as defined by their frequency[17] even in the absence of binge-eating a high score on the Severity Scale may identify the presence of psychogenic vomiting, or laxative abuse. The Children's Depression Inventory (CDI) with 27 items was used to assess DS.[18] All three are Self-Administered Questionnaires.

Two evaluators, one with previous experience with the RDC/TMD, underwent a 12 hour calibration course by the International RDC/TMD Consortium. Two more evaluators were trained and calibrated by the first two. The calibration was made with students from a random state school. The Kappa values for the RDC/TMD calibration were 0,96, 092 and 0,82 for group I, group II and group III respectively. Each examiner had a helper who was trained to explain the self-answering questionnaires for the patients and perform the RDC/TMD Axis II interview. This was made in order to avoid a systematic error that could occur if the examiner knew the participant's answers of the questionnaire,[19] which could result in a diagnostic suspicion bias that could influence the intensity and the outcome of the diagnostic process.[20]

The statistical analysis was performed using SPSS (Statistical Package for the Social Sciences) version 17.0. Pearson´s chi-square for qualitative variables was used to evaluate differences between groups. A 5% margin of error with a 95%

confidence interval was used for the results ($P < 0.05$), when P was equal to .000, it was recorded as $P < 0.001$.

Results

The majority of the sample was composed of females in a proportion of 2.1:1. Among the 1342 patients, 33.2% presented positive symptoms of TMD in one or more groups. The prevalence of symptoms in each group were 8.7% for group I, 8.3% for group II, on the right side, 8.4% for group II on the left side, 12.7% for group III on the right side and 13.5% for group III on the left side.

The prevalence of symptomatic patients for ED was 29.1% according to EAT-26. According to BITE's symptoms scale 37.2% showed an unusual eating pattern and 4.5% a highly disordered eating pattern and suggestive presence of binge-eating, also 12.3% had a clinically significant severity and 2.8% a high degree of severity on BITE's Severity Scale. This severity in the absence of binge-eating may indicate the presence of psychogenic vomiting, or laxative abuse. According to CDI, 17.7% of the adolescents showed DS.

In this sample, the prevalence of TMD in adolescents with symptoms of ED was 32.5% according to EAT-26. According to BITE, 44.4% showed unusual eating behaviors and 18.4% had clinically significant severity of bingeing and purging behavior or presence of psychogenic vomiting, or laxative abuse. The prevalence of DS in patients with TMD was 24.4% ($p<0.001$). The prevalence of TMD in adolescents with ED symptoms and DS according to CDI was 11.7% according to EAT-26 ($p<0.001$). According to BITE, 16.1% had unusual eating behaviors

(p<0.001), and 7.8%, clinically significant severity of bingeing and purging behavior or presence of psychogenic vomiting, or laxative abuse (p<0.001) (Table1).

The patients with positive diagnostic for group I disorders showed a statistically significant relationship with symptoms of ED. Their prevalence was 38.5% according to EAT-26. According to BITE, 53.8% had unusual eating behaviors and 27.4% had clinically significant severity of bingeing and purging behavior or presence of psychogenic vomiting, or laxative abuse. Statistically significant relationship with DS was also noted. The prevalence of group I diagnosis in adolescents with ED symptoms and DS according to CDI was 19.7% according to EAT-26 (p<0.001); 24.8% for BITE's symptoms scale (p<0.001) and 11.1% for BITE's Severity Scale (p<0.001) (Table 2).

DS were present in 25.3% of the patients with symptoms of ED according to EAT-26, in 26.3% of the patients with unusual eating behaviors and 31.7% of the patients with had clinically significant severity of bingeing and purging behavior or presence of psychogenic vomiting, or laxative abuse. All of those presented significant relationship between DS and ED(p<0.001) and were higher than in adolescents without ED.

Discussion

A single symptom or sign of TMD does not automatically lead to a TMD diagnosis, in order to make more complex associations indices like the RDC/TMD are necessary.[2] Epidemiologic studies found a similar prevalence of TMD according to RDC/TMD, 32,14%[21] and 27%[22]. The prevalence of muscle disorders was similar to

a systematical review that found an overall 9.7% prevalence for group I on general populations.[23].

Functional, biologic, and psychologic factors interact and influence each other in the orofacial musculoskeletal system.[7] Even though signs and symptoms of TMD are common in the general population,[4] the study of the presence of TMD in ED patients is quite recent. A recent study found evidence of the coexistence of TMD symptoms in ED patients.[1]

Few studies have investigated ED in patients presenting TMD,[1] and so far, most of them only associated ED with signs or symptoms of TMD.[1-3] A clinical examination should be included in studies of TMD and ED association.[1]

By using the RDC/TMD, this study was able to observe the coexistence of ED and TMD diagnostics in adolescents. Published data on the coexistence of RDC/TMD diagnostics and ED was not found so these findings could only be compared with studies that evaluated signs and symptoms of TMD.

In this sample a tendency for ED symptoms to be more frequent in TMD adolescents according to EAT was observed. Positive diagnostic on both BITE scales was more prevalent in adolescents with TMD but only the Severity scale had a statistically significant relationship with TMD.

The incidence of TMD in women is about twice that than in men.[24] Studies suggest that there is a higher susceptibility of women suffering from ED to suffer from miofascial pain.[2] In three of the studies that investigated the coexistence of signs and symptoms of TMD and ED the sample of two were composed only by women[1,2], and the other had a 93% prevalence of women.[3]

ED patients should be examined for signs and symptoms of TMD, as they generally have a higher risk for TMD and related problems.[3] The presence of chronic

pain may interfere with the ED treatment [1] and TMD pain may impair dietary intake to the point where patients with ED are further compromised.[25]

The prevalence of ED according to EAT-26 and BITE was close to similar studies in Brazil using the same questionnaires with adolescents from 12 to 16 years[10] and 10 to 17 years.[26] A study with students from public schools aged 12 to 19 years old found a prevalence of 37,3% for symptoms of binge eating.[27]

It is likely that the TMD symptoms presented by the ED patients are of muscular origin, patients with chronic ED may be more susceptible to muscle sensitivity than healthy individuals.[2,3] The prevalence of ED symptoms according to both EAT and BITE in this study was significantly higher in adolescents with positive diagnostic for group I. The prevalence found for BITE's Symptom Scale on group I adolescents was similar to a study that found a 53.1% prevalence of symptoms of chronic facial pain associated with ED in adolescents, and higher EAT scores in ED patients with facial pain.[1]

In this study group III had the higher prevalence values which was unexpected in this sample. TMJ osteoarthritis which is a rare disorder according to epidemiological studies[28] showed the smallest prevalence among the three in this study, arthralgia had the highest. The RDC/TMD reliability is fair to poor for osteoarthritis and osteoarthrosis and arthralgia can only be diagnosed at a level that is below desirable goals for sensitivity and specificity.[29]

Diagnoses for groups II and III show the widest range of prevalence values, which may be partly explainable by the low reliability of some joint disorder diagnoses, as pointed out by recent papers on the RDC/TMD validation.[23,29] Validity for diagnoses of disc displacements using the RDC/TMD protocol was found to be

poor. Valid diagnoses for these disorders must be based on the synthesis of patient-reported, clinical, and radiological data.[29]

Imaging of the TMJ could be used to confirm group II and III disorders as some authors defend that the validity of the RDC/TMD in the diagnosis of arthralgia has not been established.[7]. The standard in medicine for assessing intra-articular soft and hard tissue is magnetic resonance imaging (MRI) and computed tomography (CT) for TMJ disc displacements and arthrosis respectively.[29] The RDC/TMD allows the use of diagnostic deepening via imaging techniques (computerized tomography and plain tomography), but few studies use it. The issue of social and biologic costs related to the use of imaging techniques to diagnose TMD has to be weighed.[23]

The treatment of patients with chronic facial pain may have implications for the treatment of ED.[1] Patients with ED should be examined for orofacial pain and associated signs and symptoms. Special emphasis should be made to those who report purging behaviors and/or binge eating as those possibly further enhance the risk/comorbidity for ED and TMD.[3] A recent study found no difference between the vomiting and non-vomiting groups regarding joint clicks/grating sounds or locking of TMJ which may indicate that the it mainly affects the mouth musculature and not the location of the articular disc.[2]

There is a need to enhance the understanding of normal, biological and biomechanical TMJ function, including the identification of variables associated with changes and increases in joint pressure levels. These variables can lead to microtraumatic stimuli to the tissue and, consequently, can trigger a series of events that could lead to degeneration and joint pain.[28]

The balance between physiologic and pathophysiologic stimuli in the TMJ has not yet been established.[7] The act of vomiting may be detrimental to the

stomatognathic apparatus, it could be considered as a predisposing, initiating, or perpetuating factor of TMD.[2]

In this sample 4.5% adolescents showed a highly disordered eating pattern and suggestive presence of binge-eating. There is a high probability that those subjects could also fulfill DSM-IV criteria for a diagnosis of bulimia, 2.8% presented a high degree of severity on BITE's Severity Scale which may indicate the presence of psychogenic vomiting in the absence of binge-eating.

Even though the comorbid occurrence of TMD, ED and DS may complicate and perpetuate the entire symptom complex,[1] there are no published studies that have evaluated the coexistence of TMD, ED and DS. In this study the prevalence of DS with ED according to both EAT and BITE on adolescents with TMD was significantly higher than on adolescents without TMD. Regarding the presence of DS, it is know that psychological issues contribute to the development of both chronic pain and ED.[1]

The prevalence of DS and ED according to EAT and BITE on group I adolescents in this sample was significantly higher than in those without group I diagnosis. Patients with chronic ED may be more susceptible to muscle sensitivity and pronounced emotional and psychological stress.[2]

Another study found severe depression in 19.5% of TMD patients. Chronic TMD patients have higher rates of depression and this psychological difficulty could exacerbate the condition. [14] In this study the prevalence of DS was significantly higher on adolescents with TMD and with group I disorders. Psychological and biobehavioral aspects must be taken into consideration as essential modifiers of TMJ pain.[7] The use of psychosocial assessment criteria can contribute to the success of

clinical decision making regarding the control of TMD, especially muscle generated TMD.[28]

Psychological factors are one important part of the etiology of the ED.[3] In this study significant relationship between DS and ED was found for EAT and both BITE scales. Another study has found significant differences between ED and control groups regarding scores for depression.[2] Also DS were present in 62.1% of Brazilian adolescents with symptoms of ED, according to BITE scale and in 44.2% according to the EAT-26 scale, with a significant association.[10]

This sample had a 2.1:1 female to male ratio, this could influence the prevalence of TMD as several authors have reported an incidence of TMD in women about twice that than in men[24] and also the prevalence of DS in the ED patients as other studies showed that women with ED presented higher levels of depression than healthy women of the same age.[2]

Conclusion

Adolescents with TMD have a higher prevalence of DS and of the coexistence of DS and ED with statistically significant association. Special attention should be given to Group I adolescents who have an even higher prevalence of ED, DS and ED with DS, also with statistically significant association. The study of the comorbidity of those disorders may allow a better understanding of their etiology and allow a multidisciplinary approach during the treatment of those patients.

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List of abbreviations

BED - Binge eating disorder

BITE - Bulimic Investigatory Test of Edinburgh

CDI - Children's Depression Inventory

CNPq - Coordination for the Improvement of Higher Level Personnel

DS - Depressive symptoms

EAT-26 - Eating Attitudes Test

ED - Eating disorders

EDNOS - Eating disorder not otherwise specified

FACEPE - Science and Technology Foundation of the State of Pernambuco

RDC/TMD - Research Diagnostic Criteria for Temporomandibular Disorders

TMD - Temporomandibular disorders

TMJ - Temporomandibular joints

UFPE - Universidade Federal de Pernambuco

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TABLE 1. Frequency of ED and DS according to the presence of TMD

	Temporomandibular Disorders				P-value
	Positive		Negative		
Variable	n	%	n	%	
EAT					
Positive	145	32.5	246	27.5	p=0.055
Negative	301	67.5	650	72.5	
BITE's Symptom Scale					
Positive	198	44.4	361	40.3	p=0.151
Negative	248	55.6	535	59.7	
BITE's Severity Scale					
Positive	82	18.4	120	13.4	p=0.016*
Negative	364	81.6	776	86.6	
Depressive Symptoms					
Positive	109	24.4	129	14.4	p<0.001*
Negative	337	75.6	767	85.6	
EAT					
Positive with DS	52	11.7	47	5.2	p<0.001*
Positive without DS	93	20.9	199	22.2	
Negative with DS	57	12.8	82	9.2	
Negative without DS	244	54.7	568	63.4	
BITE's Symptom Scale					
Positive with DS	72	16.1	75	8.4	p<0.001*
Positive without DS	126	28.3	286	31.9	
Negative with DS	37	8.3	54	6.0	
Negative without DS	211	47.3	481	53.7	
BITE's Severity Scale					
Positive with DS	35	7.8	29	3.2	p<0.001*
Positive without DS	47	10.5	91	10.2	
Negative with DS	74	16.6	100	11.2	
Negative without DS	290	65.0	676	75.4	
TOTAL	446	100	896	100	

(*):Significant association in 5.0%.

(1): Through Pearson’s Qui-square test.

TABLE 2. Frequency of ED and DS according to the presence of group I (muscle disorders)

	Group I (muscle disorders)				
	Positive		Negative		P-value
Variable	n	%	n	%	
EAT					
Positive	45	38.5	346	28.2	P=0.020*
Negative	72	61.5	879	71.8	
BITE's Symptom Scale					
Positive	63	53.8	496	40.5	P=0.005*
Negative	54	46.2	729	59.5	
BITE's Severity Scale					
Positive	32	27.4	110	13.9	p<0.001*
Negative	85	72.6	1055	86.1	
Depressive Symptoms					
Positive	39	33.3	199	16.2	p<0.001*
Negative	78	66.7	1026	83.8	
EAT					
Positive with DS	23	19.7	76	6.2	p<0.001*
Positive without DS	22	18.8	270	22.0	
Negative with DS	16	13.7	123	10.0	
Negative without DS	56	47.9	756	61.7	
BITE's Symptom Scale					
Positive with DS	29	24.8	118	9.6	p<0.001*
Positive without DS	34	29.1	378	30.9	
Negative with DS	10	8.5	81	6.6	
Negative without DS	44	37.6	648	52.9	
BITE's Severity Scale					
Positive with DS	13	11.1	51	4.2	p<0.001*
Positive without DS	19	16.2	119	9.7	
Negative with DS	26	22.2	148	12.1	
Negative without DS	59	50.4	907	74.0	
TOTAL	117	100	1215	100	

(*):Significant association in 5.0%.

(1): Through Pearson’s Qui-square test.

5.2 ARTIGO ORIGINAL: PREVALENCE OF TEMPOROMANDIBULAR DISORDERS AND EATING DISORDERS ACCORDING TO AGE IN STUDENTS[3]

PREVALENCE OF TEMPOROMANDIBULAR DISORDERS AND EATING DISORDERS ACCORDING TO AGE IN STUDENTS

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3 Artigo submetido no International Journal of Eating Disorders (ANEXO E) utilizando as normas do mesmo (ANEXO F)

Abstract

Objective: The objective of this study was to observe the presence and coexistence of temporomandibular disorder (TMD) and eating disorders (ED) in order to verify the manifestation of those disorders in a population of students according to their age. **Method:** A representative sample of 1342 public state schools students aged 10 to 17 years old from both sexes were examined for TMD through the RDC/TMD, and for ED through the EAT-26 and BITE in a 10-month period. Pearson´s chi-square for qualitative variables was used to evaluate differences between groups. A 5% margin of error with a 95% confidence interval was used for the results ($P < 0.05$). **Results:** The mean prevalence for all ages was 34.39% for TMD, 31.21% for ED according to EAT, 40.37% for unusual eating behavior and 15.12% for clinically significant severity of bingeing and purging behavior or presence of psychogenic vomiting, or laxative abuse in the absence of binge-eating. The Mean prevalence of the coexistence of TMD and ED symptoms according to EAT was 12.39%. According to BITE the mean prevalence for TMD and unusual eating behaviors was of 14.89%. Clinically significant severity of bingeing and purging behavior or presence of psychogenic vomiting, or laxative abuse in the absence of binge-eating was of 6.17%. **Discussion:** The high values of prevalence of TMD and ED in students cannot be taken lightly. Identifying ED symptoms in an early age could allow the treatment in their first stages and help to understand the factors involved with their development in children and adolescents.

Prevalence of Temporomandibular Disorders and Eating Disorders According to Age in Students

Objective

The American Academy of Pediatric Dentistry recognizes that disorders of the temporomandibular joint (TMJ) occasionally occur in infants, children, and adolescents.[1] Many studies evaluated signs and symptoms of temporomandibular disorders (TMD) in adolescents.[2-5]

Temporomandibular disorders (TMD) etiology is multifactorial and still controversial.[5] There is not yet a consensus on the etiology of these disorders.[6] Diagnosis of TMD should be based upon a combination of patient history, clinical examination, supplemented by radiographic or imaging data when indicated.[7-9]

The Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD) is used to diagnostic the most common forms of TMD into three subtypes that allows multiple diagnoses, those three groups are: Group I, muscle disorders; Group II, disc displacements; and Group III, arthralgia, arthritis, arthrosis.[11-12] Children with TMD commonly have a history of pain which is more severe when the children is stressed or while talking or eating.[2]

The multidimensional character of eating behavior has been of increased interest to academic research in the last decade.[12] Eating disorders (ED) research has come mostly from developed countries suggesting a greater prevalence of ED in urban settings and data from developing countries are scarce and conflicting.[13] The

disorders that occur in childhood represent alterations in the relationship of the children with the food and while they can interfere with their development it doesn't seen that they are associated with excessive worries about weight or body shape. The disorders that appear later are the eating disorders themselves.[14]

Studies detected the coexistence of TMD and ED,[2,15,16] but without conclusive explanations to possible mechanisms for these findings, it would therefore be of interest to further explore the possible coexistence between ED and signs and symptoms associated with TMD.[17] The objective of this study was to observe the prevalence and coexistence of TMD ED in order to verify the prevalence of those disorders in a population of students according to their age.

Method

Clinical examinations are typically associated with poor reliability unless standardization and calibration procedures are used to insure reproducibility of clinical findings among different clinical examiners.[10] A representative sample of 1342 public state schools students (10-17 year old) were examined in a 10-month period by calibrated evaluators with satisfactory Kappa values.

Standardized diagnostic methods and valid diagnostic criteria are absolutely critical in defining and identifying subtypes of TMD so the Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD) was used to diagnostic the three subtypes: Group I, muscle disorders; Group II, disc displacements; and Group III, arthralgia, arthritis and arthrosis.[10]

The Eating Attitudes Test (EAT-26) was used to verify symptoms of eating disorders, it is one of the most widely used self-report ED instrument. It is presented in a self-report format which is easily administered and scored even in a non-specialized setting.[18] The Bulimic Investigatory Test, Edinburgh (BITE) was used to identify symptoms of bulimia or binge eating, it consists of two subscales: the Symptom Scale, which measures the degree of symptoms present, and the Severity Scale, which provides an index of the severity of bingeing and purging behavior as defined by their frequency[19] even in the absence of binge-eating a high score on the Severity Scale may identify the presence of psychogenic vomiting, or laxative abuse. All the instruments were used in their Brazilian versions which are already validated.

This study was approved by the Institutional Review Board/Research Ethics Committee of the Federal University in Pernambuco, Brazil, the State Department of Education and the schools principals.

Results

All ages had almost the same number of children, with their prevalence ranging from 11.3 to 16.6% the only exception were 10-year-old children which are only 2.7% of the sample.

Mean (SD) prevalence of TMD with age increase was 34.39% (4.56) showing a decrease from 10 to 12 and then stabilizing, for group I was 8.56% (1.96) showing little variation, group II 12.41% (3.27) showed an increase and group III 19.21% (6.61) decreased having the biggest variance in prevalence (Figure 1).

The mean (SD) prevalence of ED symptoms according to EAT was 31.21% (7.67) decreasing with age. According to BITE the mean (SD) prevalence for unusual eating behavior was of 40.37% (4.96) which was the only one that showed an increase with an increase in age and for clinically significant severity of bingeing and purging behavior or presence of psychogenic vomiting, or laxative abuse in the absence of binge-eating was of 15.12% (2.77) with little variance (Figure 2).

The mean (SD) prevalence of students with TMD and ED symptoms according to EAT was 12.39% (5.40) decreasing with age. According to BITE the mean (SD) prevalence for TMD and unusual eating behaviors was of 14.89% (1.10) with little variance. Clinically significant severity of bingeing and purging behavior or presence of psychogenic vomiting, or laxative abuse in the absence of binge-eating was of 6.17% (1.48) with little variance (Figure 3).

The mean (SD) prevalence of students with positive diagnosis for group I and ED symptoms according to EAT was 3.56% (1.29). According to BITE the mean (SD) prevalence for TMD and unusual eating behaviors was of 4.67% (1.66). Clinically significant severity of bingeing and purging behavior or presence of psychogenic vomiting, or laxative abuse in the absence of binge-eating was of 2.17% (1.25) all three had little variance with increasing age (Figure 4).

The mean (SD) prevalence of students with positive diagnosis for group II and ED symptoms according to EAT was 3.32% (1.44) decreasing with age. According to BITE the mean (SD) prevalence for TMD and unusual eating behaviors was of 4.77% (1.53) increasing with age. Clinically significant severity of bingeing and purging behavior or presence of psychogenic vomiting, or laxative abuse in the absence of binge-eating was of 1.56% (1.03) increasing with age (Figure 5).

The mean (SD) prevalence of students with positive diagnosis for group III and ED symptoms according to EAT was 7.69% (4.26). According to BITE the mean (SD) prevalence for TMD and unusual eating behaviors was of 8.85% (1.83). Clinically significant severity of bingeing and purging behavior or presence of psychogenic vomiting, or laxative abuse in the absence of binge-eating was of 3.59% (1.27) all three decreased with increasing age (Figure 6).

Discussion

The prevalence of TMD found in this study was consistent with other studies. In a sample of children with primary dentition aged 3 to 5 years, 34.34% presented signs and/or symptoms of TMD[20] and another study found reported symptoms in 33% of school children aged 12 to 16.[4]

Imaging of the TMJ is frequently used to screen for unexpected pathology, to confirm the presence of RDC/TMD group II and group III disorders[6] and it may be recommended to investigate joint sounds in the absence of other TMD signs and symptoms.[1] TMJ imaging was not used in this study, so the presence of group II and group III was evaluated by the RDC/TMD alone.

In a systematical review of the literature, studies on general populations had an overall 9.7% prevalence for group I, which is consistent with the values found in this study, the results for group II were also similar, being 11.4%.[21] Another study found a prevalence of group II results in 15.1% and 15.7% of the patients in the left and right temporomandibular joints. The same study also found a similar, although a

little smaller, prevalence for group III disorders with 12.6% and 13.0% for the left and right joints respectively.[22]

A recent study with Jordanian school girls aged 10 to 16 years found that one third of them had ED symptoms according to EAT.[9] Two previous studies with Brazilian female evaluated the prevalence of ED symptoms according to EAT, the first showed a 41.6% prevalence in teenagers from 12 to 18 years old,[23] the second one with 2.483 university students with ages from 18 to 50 years old found a prevalence of ED symptoms ranging from 23.7% to 30.1% in the five regions of Brazil according to EAT.[24] The similar values of prevalence found in the present study suggest that there is little change in the presence of ED symptoms from adolescence to adulthood in a Brazilian population.

Even though a student with children and adolescents aged 7 to 19 years old observed higher prevalence values of ED in students in the age range of 11 to 16 years.[25] A recent study has shown that children suffer from bulimia and also seem to exercise self-control over food intake even more often than adolescents and adults.[12] This could explain the higher prevalence of ED symptoms according to EAT in younger students in this sample.

The prevalence of unusual eating behaviors according to BITE was similar to other studies that found a prevalence of 39% in a sample aged 10 to 17 years[26] and 38.2% in a 12 to 16 years old sample.[27] Both BITE scales present a quite similar pattern of prevalence with increasing age, being the biggest difference at age 15, when the symptom scale has as increase in prevalence and the severity scale has a decrease. The results for EAT follow almost she same pattern as both the BITE scales from 13 to 17 years.

Risk behaviors for ED can evolve to full ED syndromes and lead to other health problems and psychosocial consequences.[24] The high prevalence of ED symptoms in this sample and similar studies should be seen as a sign that children and teenagers are in contact with factors related to the appearance ED in early ages. Research suggests that exposure to Western mass media depicting the thin ideal body is linked to body image disturbance in women and plays a central part in ED.[28]

The spread of information regarding beauty, thinness and diets in Brazil and the importance that those aspects receive in the media must be considered (Alvarenga, 2010). The social impact on eating behavior seems to be more severe among adolescents, as compared to children and adults(Kavazidou, 2012), but body dissatisfaction and media influence must be evaluated in relation to risk behaviors for ED in all ages.[24]

Recent studies found evidence of the coexistence of ED and TMD symptoms.[15] In a study that evaluated the presence of signs and symptoms of TMD, 15.4% chronic ED patients had joint sensitivity, which is similar to the results found for the prevalence of TMD and ED symptoms according to EAT, and to BITE symptom scale.[16]

A study suggesting the coexistence of facial pain (using a instrument to evaluate musculoligamentous pain) and ED symptoms according to EAT found a prevalence of 2.6% for the presence of those two those conditions,[15] which is similar to the results found in this sample for the coexistence of ED symptoms with and group I and group II adolescents.

Epidemiologic studies show that any general theory of the etiology of TMD must account for the apparent higher incidence in adolescence and the intermittent

nature of those disorders.[6] As TMD related symptoms in young adolescents are not persistent but rather appear and disappear repetitively.[29] Some signs and symptoms may be risk factors and predict TMD signs and symptoms in a long term perspective. However, it cannot be concluded that these symptoms can be used for predicting manifest TMD in adult age.[30] It is still not possible to predict reliably which patient will or will not develop TMD.[1]

Even though the etiology of TMD and ED is still not fully comprehended, the presence of both conditions at an early age cannot be overseen. The presence of risk behaviors for ED must be considered as an important issue by health professionals and must be taken into account in order to develop adequate detection, prevention and treatment.[24] ED patients may be more susceptible to stress,[16] and have a higher risk for TMD.[17]

In a study that assessed physical, psychologic, and behavioral factors when conservative medical therapy was inadequate for TMD symptom relief found that 35% of children aged 7 to 16 years old had psychologic and organic factors intertwined. Also in 25% temporomandibular joint dysfunction and associated pain were classified as a manifestation of a primary psychiatric disorder being anorexia nervosa one of the disorders.[2]

The treatment of TMD symptoms may help in the treatment of ED.[15] Conservative and reversible types of therapy are effective in reducing most TMD symptoms in children so other treatments should be considered only when those were ineffective.[31] Prevention and conservative therapies should be the main focus for health professionals who deal with those conditions. ED patients have few treatment options and many cases are chronic and with frequent recurrences.[24]

The high values of prevalence of TMD and ED in students cannot be taken lightly, even though there is a small chance that children and teenagers with TMD will need treatment in adulthood. The coexistence of ED increases this risk, while the presence of both disorders can worsen the patient condition. Identifying ED symptoms in an early age could allow the treatment in their first stages and help to understand the factors involved with their development in children and adolescents.

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Figure captions

Figure 1. Prevalence of temporomandibular disorders (TMD), and TMD diagnostics according to group for each age

Figure 2. Prevalence of eating disorders, according to EAT and BITE scales for each age

Figure 3. Prevalence of children with temporomandibular disorders and eating disorders according to EAT and BITE scales for each age

Figure 4. Prevalence of children with group I temporomandibular disorders and eating disorders according to EAT and BITE scales for each age

Figure 5. Prevalence of children with group II temporomandibular disorders and eating disorders according to EAT and BITE scales for each age

Figure 6. Prevalence of children with group III temporomandibular disorders and eating disorders according to EAT and BITE scales for each age

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There were no conflicts of interest to carry out this study.

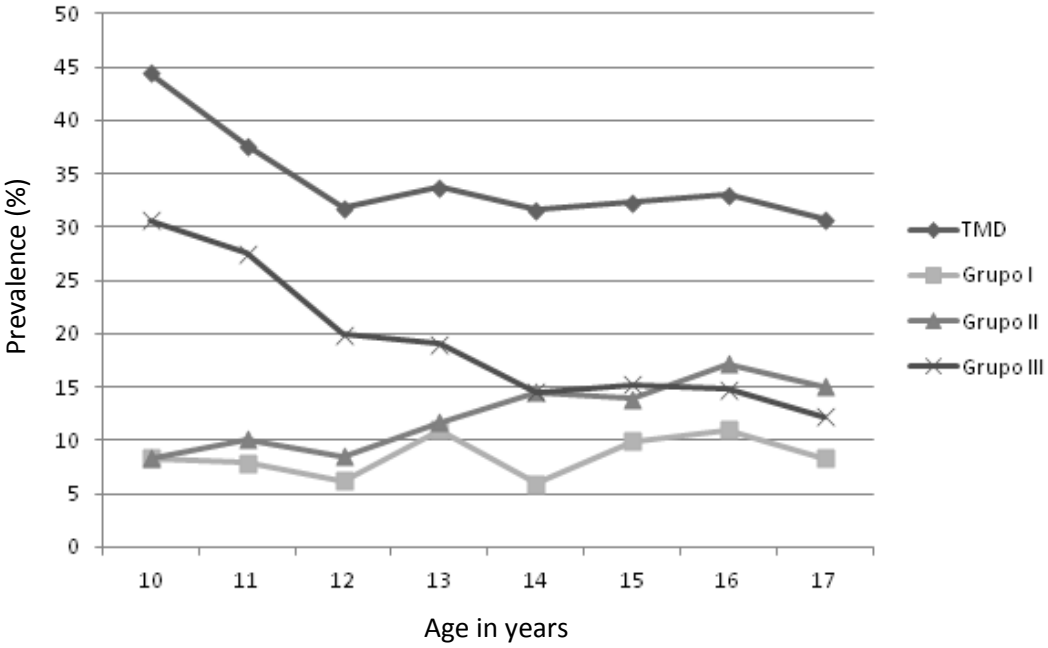

Figure 1

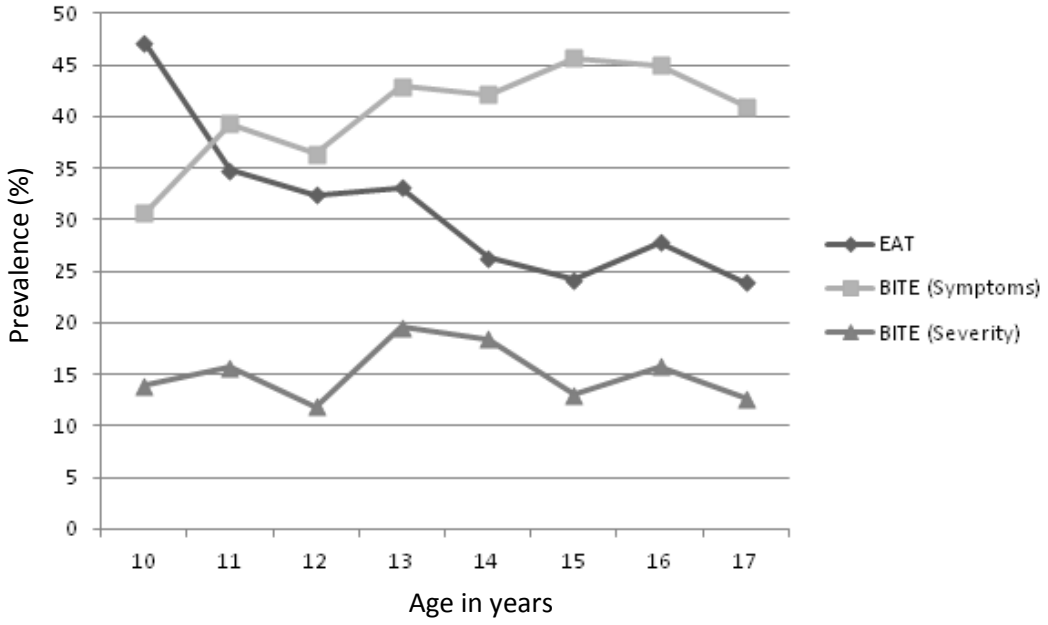

Figure 2

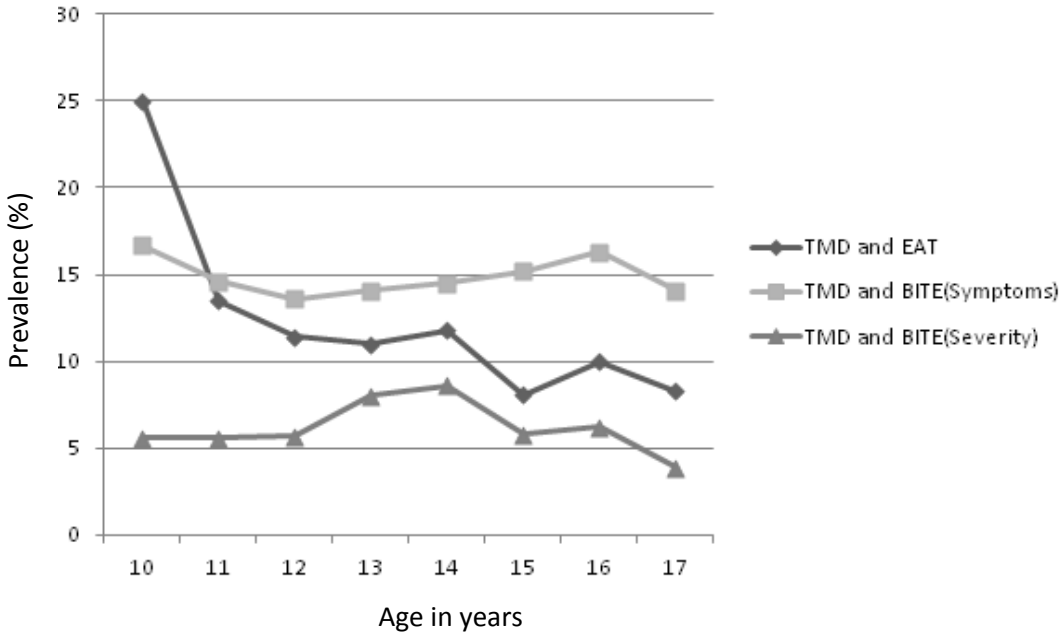

Figure 3

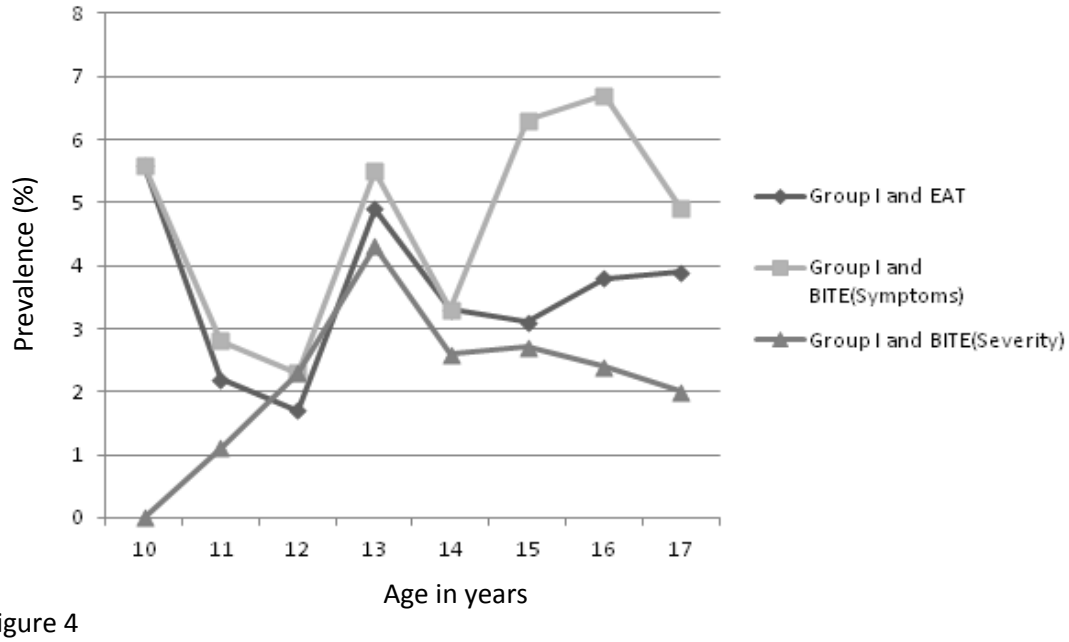

Figure 4

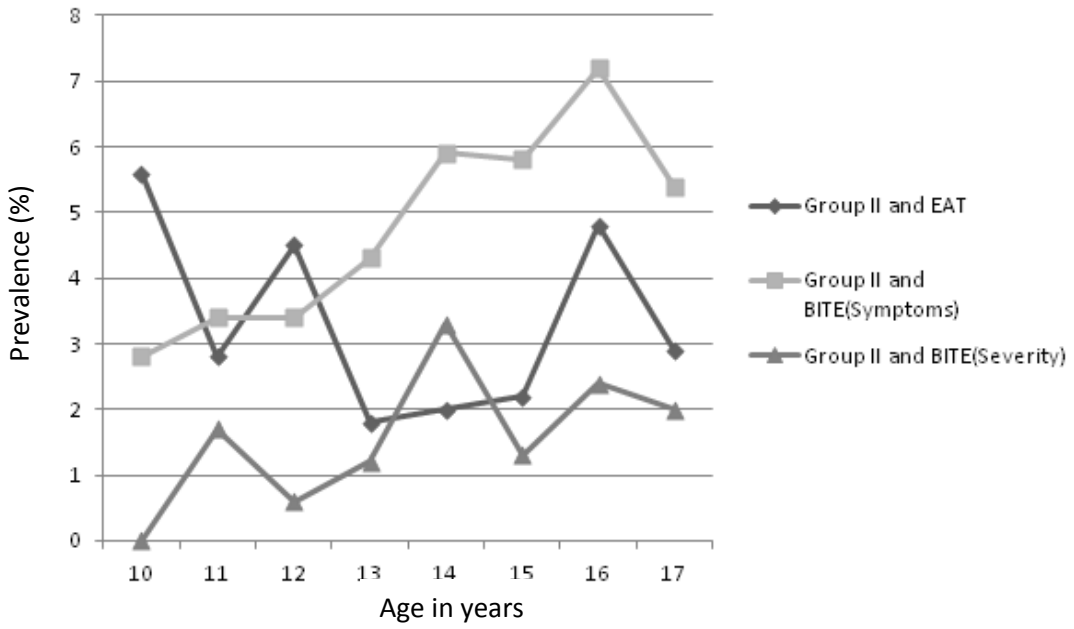

Figure 5

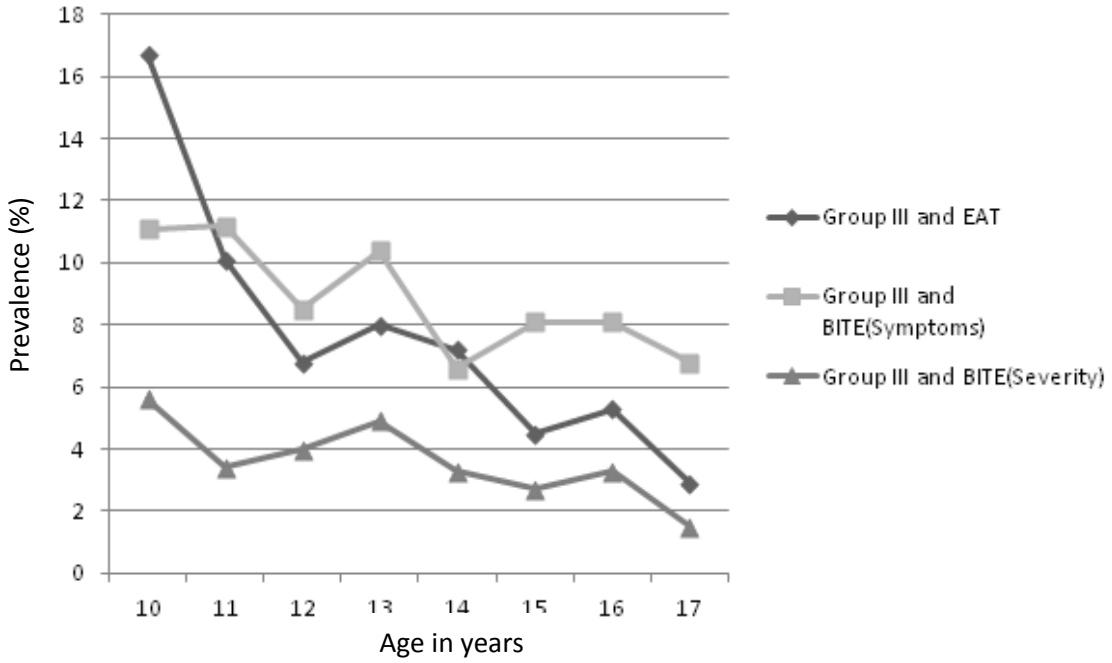

Figure 6

6. CONCLUSÃO

Este estudo identificou uma alta prevalência de DTM, TA e SD entre estudantes de 10 a 17 anos, além de uma relação estatisticamente significativa entre entre estas condições. Adolescentes com DTM apresentam uma forte associação com sintomas de TA e TA associados a SD. Adolescentes com diagnóstivo de DTM positivo para o grupo I apresentam forte associação com sintomas de TA, SD e a associação de TA e SD.

A comorbidade entre disfunção temporomandibular, transtornos alimentares e sintomatologia depressiva não só é uma realidade em adolescentes, como não pode ser ignorada pelos profissinais de saúde. Não considerar a coexistência destas condições pode ser um dos motivos de insucesso no tratamento das mesmas já que equipes multidisciplinares são necessárias para melhor atender esses pacientes. Pesquisas futuras que identifiquem os fatores relacionados ao surgimento destes distúrbios em crianças e adolescentes podem possibilitar o desenvolvimento de métodos de prevenção mais eficazes.

7. LIMITAÇÕES DA PESQUISA

A faixa etária foi limitada de 10 a 17 anos devido a falta de um instrumento validado para a avaliação da sintomatologia depressiva que alcançasse a definição de adolescentes da OMS que compreende indivíduos de 10 a 19 anos.

Um estudo do tipo transversal, é um bom instrumento para rastreamento, porém corresponde somente a um determinado momento. No estudo transversal não é possível acompanhar o curso dos transtornos estudados e nem considerar determinados aspectos da etiologia dos distúrbios focos da pesquisa (PEREIRA, 2002).

A utilização dos instrumentos auto-aplicáveis como o EAT, BITE e CDI possui várias facilidades, porém, vários conceitos não são possíveis de serem avaliados nestes questionários, não permitindo determinados diagnósticos (NUNES et. al., 2006).

7. ASPECTOS ÉTICOS

Esta pesquisa foi aprovada pelo Comitê de Ética em Pesquisa da UFPE (protocolo: 0397.0.172.000-11) e pela Secretaria da Educação do Estado de Pernambuco, através de suas gerências regionais: GRE Recife Norte (ANEXO K) e GRE Recife Sul (ANEXO L).

Os adolescentes participantes deste estudo, assim como seus responsáveis assinaram o TCLE. Os adolescentes e responsáveis foram informados dos propósitos da pesquisa e sua participação foi voluntária.

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APÊNDICE A - Termo de Consentimento Livre e Esclarecido

Seu (Sua) filho(a) está sendo convidado a participar de uma pesquisa que será realizada na escola em que ele(a) estuda sobre "Disfunção temporomandibular, transtornos alimentares e sintomas depressivos em adolescentes". O documento abaixo contém as informações sobre a pesquisa. Sua colaboração neste estudo será de muita importância para nós.

Eu,_____, RG n°_____, abaixo assinado (a), concordo de livre e espontânea vontade que meu (minha) filho(a) _____, nascido em ___/____/_____ participe da pesquisa e esclareço que obtive todas as informações necessárias.

Trata-se de projeto de mestrado da Pós-graduação em Neuropsiquiatria e Ciências do Comportamento da Universidade Federal de Pernambuco, sob coordenação do professor Everton Botelho Sougey, Coordenador da Pós-graduação em Neuropsiquiatria e Ciências do Comportamento desta mesma universidade. Declaro que tenho pleno conhecimento dos direitos e das condições que me foram garantidas, assim como dos riscos e benefícios relacionados abaixo:

1. O adolescente passará por uma avaliação da postura, dos hábitos posturais e de dor musculoesquelética aqueles que necessitarem realizarão tratamento fisioterápico para melhorar a postura;
2. O adolescente passará por uma avaliação do dentista e caso seja necessário algum tratamento mais especializado ele será encaminhado para a Clínica Escola da UFPE;
3. O adolescente realizará um programa para fortalecimento da auto-estima;
4. O adolescente irá responder a perguntas relacionadas à alimentação e consumo de remédios;
5. Durante toda pesquisa o adolescente receberá instruções sobre como cuidar dos dentes e gengiva;
6. O adolescente tem a garantia de poder perguntar em qualquer momento da pesquisa sobre qualquer dúvida e garantia de receber resposta ou esclarecimento a respeito dos procedimentos, riscos, benefícios e outras situações relacionadas à pesquisa;
7. Existe total liberdade para retirar o consentimento e não permitir que o jovem participe do estudo, em qualquer momento, sem que isso traga qualquer problema ao atendimento que ele recebe;
8. O adolescente não será identificado em nenhum momento da pesquisa; todas as informações serão mantidas em sigilo;
9. As respostas do adolescente serão mantidas em sigilo pelo pesquisador;

RISCOS: Os riscos estão ligados a algum constrangimento que o adolescente possa ter para responder ao questionário, e no exame da boca, e no exame de postura. Todas as avaliações, bem como tratamento serão individualizados, em uma sala adequada e restrita apenas ao pesquisados e ao adolescente. BENEFÍCIOS: Caso o adolescente tenha alguma indicação de tratamento, será encaminhado e receberá as instruções devidas.

Após ter ouvido todos os esclarecimentos acima, declaro que concordo inteiramente com todas as condições e que autorizo a análise dos dados coletados e sua publicação, em qualquer meio de divulgação.

Recife, _____ de _____ de 20_____.

_____ _____

Nome da pesquisadora responsável Assinatura

_____ _____

Nome do pai e/ou responsável Assinatura

_____ _____

Nome do adolescente Assinatura

_____ _____

Nome da primeira testemunha Assinatura

_____ _____

Nome da segunda testemunha Assinatura

Coordenador da Pesquisa: Everton Botelho Sougey, Coordenador da Pós-graduação em Neuropsiquiatria e Ciências do Comportamento - UFPE

Pós-graduação em Neuropsiquiatria e Ciências do Comportamento - UFPE. Telefone: (81) 21268539

APÊNDICE B – Questionário Sócio-Biodemográfico

Número ☐☐☐☐

1. Qual a sua idade?

( ) 10 ( ) 11 ( ) 12 ( ) 13 ( ) 14 ( ) 15 ( ) 16 ( )17 ( )18 ( )19

---

2. Sexo?

( ) Masculino ( ) Feminino

---

3. Você tem irmãos? ( )Sim ( ) Não

Se **NÃO** passe para o item 5;

Se SIM;

4. Que lugar você ocupa com relação aos irmãos?

( ) É o (a) filho (a) caçula ( ) É o (a) mais velho (a) ( ) É intermediário (do meio)

---

5. Até que série seu responsável estudou?

( ) Analfabeto (Nunca foi à escola)/ Fundamental incompleto (estudou até a 3ª série).

( ) Fundamental 1 completo (estudou até a 4ª série).

( ) Ensino fundamental 2 completo (estudou até a 8ª série).

( ) Nível médio completo.

( ) Ensino superior completo (faculdade).

---

6. Quantas pessoas moram na sua casa? _____ pessoas

---

7. Quantos cômodos tem na sua casa? _____ cômodos.

---

8. Sobre a sua casa:

Itens em sua casa	**Não tem**	**TEM (quantidade)**			
		1	**2**	**3**	**4**
Televisores em cores					
Videocassete/ DVD					
Rádios					
Banheiros					
Automóveis					
Empregadas mensalistas					
Máquinas de lavar					
Geladeira					
Freezer (*)					

ANEXO A – Confirmação da submissão do artigo de revisão de literatura à revista Trends in Psychiatry and Psychotherapy

João Aroucha <joaoaroucha@gmail.com>

Trends in Psychiatry and Psychotherapy - Manuscript ID RPRS-2013-0006

1 mensagem

trends.denise@gmail.com <trends.denise@gmail.com> 20 de fevereiro de 2013 18:51
Para: joaoaroucha@gmail.com, mail.pro.jota@gmail.com

20-Feb-2013

Dear Mr. Aroucha:

Your manuscript entitled "The temporomandibular disorders and the eating disorders - A literature review" has been successfully submitted online and is presently being given full consideration for publication in Trends in Psychiatry and Psychotherapy.

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ANEXO B – Normas da revista Trends in Psychiatry and Psychotherapy

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INSTRUCTIONS TO AUTHORS

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Trends supports the clinical trial registration policies of the World Health Organization (WHO) and the ICMJE, recognizing the importance of such initiatives for the registration and disclosure of trial results to the international community through open access. According to this recommendation and to the BIREME/OPAS/OMS guidelines for journals indexed in the LILACS and SciELO databases, Trends will only accept for publication clinical trials that have been registered in Clinical Trials Registries that meet the WHO and ICMJE requirements (URLs available at http://www.icmje.org/faq.pdf). The clinical trial registration number should be informed at the end of the abstract.

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Preference will be given to manuscripts written in English. Manuscripts written in Portuguese may also be submitted but will be translated into English upon acceptance for publication. Translation costs will be the responsibility of the authors. Only manuscripts written in clear and understandable language will be sent to peer review.

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Manuscripts submitted to Trends are initially evaluated by the editors with regard to conformity between the manuscript content and the journal's editorial line. If the paper is in accordance with the editorial policies of the journal and with the present Instructions to Authors, it will be referred to analysis by at least two reviewers selected by the editors; the reviewers remain anonymous throughout the review process.

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1) **Editorials**: Critical and thorough comments, written by the editors and/or invited authors with renowned experience in the topic being addressed.
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Authors should demonstrate that the statistical procedures employed in the study were not only appropriate to test the hypotheses of the study but also correctly interpreted. Levels of statistical significance (e.g., $p < 0.05$, $p < 0.01$, $p < 0.001$) should be provided.

Abbreviations
Abbreviations should be spelled out in the text at first mention. Thereafter, only the abbreviation should be used.

Drugs
Drugs should be referred to by their generic name only.

Acknowledgments
This section should disclose any sources of financial support received by the study. In addition, this section should acknowledge people, groups or institutions which have made important contributions to the study but do not meet the

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ANEXO C – Confirmação da submissão do artigo original à revista Journal of Pediatrics

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João Aroucha <joaoaroucha@gmail.com>

A manuscript number has been assigned to Temporomandibular disorders, eating disorders and depressive symptoms in adolescents

1 mensagem

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Editorial Policies

General Information

The Journal of Pediatrics publishes Original Research Articles, Clinical and Laboratory Observations (case reports), reviews of Medical Progress in pediatrics and related fields, Grand Rounds (clinicopathologic conferences [CPC] or didactic discussions), Invited Commentaries, Special Articles, Association of Medical School Pediatric Department Chairs, Inc. (AMSPDC) commentaries, Insights and Images, Letters to the Editor,

and Supplements.

Duplicate/Prior/Overlapping Publication or Submission

Manuscripts are accepted for review with the stipulation that they are submitted solely to *The Journal of Pediatrics. The Journal* will not consider for review manuscripts that have been published elsewhere, even if in another language, manuscripts that are being considered by another publication, are in press, or will be published or submitted elsewhere. Although poster presentations and abstracts are not considered duplicate publication, they should be stated in the initial letter of submission.

If any part of a manuscript by the same author(s) contains any information that was previously published, is in press, or is under consideration by another publication, a reprint of the previous article or a copy of the other manuscript must be submitted to the Editor at the point of submission, with a justification or explanation by the authors of any potential overlap or duplication. It is not necessary to disclose submissions that were rejected by another journal.

The Editors are disinclined to publish more than one paper arising from the study of the same patient population. Please combine papers from the same study whenever possible. If you are unable to combine the papers, a reprint of the other article(s) or a copy of the other manuscript(s) must be submitted to the Editor at the point of submission, with a justification or explanation by the authors as to why the papers could not be combined.

If the Editor is made aware of such overlapping or duplicate manuscripts that have not been disclosed by the authors, a written explanation will be requested. If, in the judgment of the Editor, the explanation is inadequate, the submission will be rejected. If there is no disclosure, an appropriate official of the primary author's academic institution will be notified.

Authorship Criteria

As one of the conditions of authorship, all authors must have seen and approved the submission of the manuscript and be willing to take responsibility for the entire manuscript. Multi-authored manuscripts should have a declaration of each author's contributions in the letter of submission. If there are concerns about how all persons listed as authors meet the criteria for authorship according to the International Committee of Medical Journal Editors' (ICMJE) "Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication," we will request further information from the corresponding author and, if necessary, request written documentation of each person's work on the report. All individuals who fulfill ICMJE conditions for authorship should be included in the author list. Individuals who have contributed to the study, but do not meet the requirements for authorship, should be included in the Acknowledgments Section (e.g., Department Chair, "honorary author," anyone who provided technical or writing assistance).

If the byline includes the name of a study group, a list of all members of the study group and their affiliations must be provided and would be published as an online Appendix. All authors of a submitted manuscript must sign a form declaring that they meet the criteria for authorship according to www.icmje.org, approve the most recent submitted version of the manuscript, and take full responsibility for the manuscript. This form will be sent to the corresponding author when the Editors reach a decision that the manuscript may be potentially publishable.

Addition, Deletion, or Rearrangement of Author Names

Before the accepted manuscript is published in an online issue: In accordance with the policies of the Committee on Publication Ethics (COPE), requests to add, remove, or rearrange author names must be e-mailed to the Editorial Office (journal.pediatrics@cchmc.org) from the corresponding author of the accepted manuscript and must include the reason the name should be added or removed, or the author names rearranged. Confirmation e-mails from each author that they agree with the addition, removal, or rearrangement is also required; in the case of addition or removal of authors, this includes confirmation from the author being added or removed. Requests that are not sent by the corresponding author will be forwarded by the Editorial Office to the corresponding author, who must follow the procedure as described above. Note that the Journal Manager will inform the Editorial Office of any such requests, and online publication of the accepted manuscript will be suspended until authorship has been finalized.

After the accepted manuscript is published in an online issue: Any requests to add, delete, or rearrange author names in an article published in an online issue will follow the same policies as noted above and may result in an erratum.

Acknowledgments Section

The names, along with any conflicts of interest, funding sources, and industry-relation, of persons who have contributed substantially to a study but do not fulfill the criteria for authorship as outlined by the International Committee of Medical Journal Editors (ICMJE) are to be listed in the Acknowledgments section, which will be published in the print and/or online version of *The Journal of Pediatrics*. This section should include individuals who provided any writing, editorial, and/or statistical assistance, as well as Department Chairs, "honorary authors," etc.

Ethical Approval of Studies, Informed Consent, and Identifying Details

Studies on patients or volunteers require ethics committee and/or independent review board (IRB) approval, which should be documented in the Methods section of the paper. If this study was not approved by the appropriate ethics committee or IRB, include a statement as to why it was exempt.

Manuscripts describing research involving human subjects should indicate that written informed consent was obtained from the parents or guardians of the children who served as subjects of the investigation and, when appropriate, assent from the subjects themselves. In the event that either the Editors or the reviewers question the propriety of the human investigation with respect to the risk to the subjects or to the means by which informed consent was obtained, The *Journal of Pediatrics* may request more detailed information about the safeguards employed and the procedures used to obtain informed consent. Copies of the minutes of the committees that reviewed and approved the research also may be requested. Authors should verify compliance with the Health Insurance Portability & Accountability Act of 1996(HIPAA) prior to submission.

Patients have a right to privacy. Therefore identifying information, including patients' images, names, initials, or hospital numbers, should not be included in videos, recordings, written descriptions, photographs, and pedigrees unless the information is essential for scientific purposes and you have obtained written informed consent for publication in print and electronic form from the patient (or parent, guardian, or next of kin where applicable). If such consent is made subject to any conditions, Elsevier must be made aware of all such conditions. Written consents must be provided to Elsevier on request.

Even where consent has been given, identifying details should be omitted if they are not essential. If identifying characteristics are altered to protect anonymity, such as in genetic pedigrees, authors should provide assurance that alterations do not distort scientific meaning and editors should so note. If such consent has not been obtained, personal details of patients included in any part of the paper and in any supplementary materials (including all illustrations and videos) must be removed before submission.

Clinical Trials Registration

Beginning on January 1, 2013, all new manuscripts for clinical trials must be registered *prior* to the enrollment of the first participant. This policy applies to any clinical trial starting enrollment after July 2005.

According to the World Health Organization:

"For the purposes of registration, *a clinical trial is any research study that prospectively assigns human participants or groups of humans to one or more health-related interventions to evaluate the effects on health outcomes.* Interventions include but are not restricted to drugs, cells and other biological products, surgical procedures, radiological procedures, devices, behavioral treatments, process-of-care changes, preventive care, etc."

By submitting a clinical trial to *The Journal of Pediatrics*, you are confirming that the study is being presented according to CONSORT guidelines. Although the CONSORT checklist is not required upon submission, it must be made available upon the Editors' request. However, the CONSORT flow diagram must be uploaded as a Figure with the initial submission. You must include the site of the registry and the registration number on the title page.

A list of International Committee of Medical Journal Editors (ICMJE)-approved clinical trial registries and additional guidelines for registering RCTs are available at: http://www.icmje.org/faq_clinical.html. If a trial was not registered prior to the enrollment of the first participant and/or it was registered in an unapproved registry, you must provide an explanation in the initial letter of submission, which will be assessed by the Editors on a case-by-case basis.

Negative Studies

The Journal of Pediatrics agrees with the International Committee of Medical Journal Editors (ICMJE) statement regarding the obligation to publish negative studies: "Editors should consider seriously for publication any carefully done study of an important question, relevant to their readers, whether the results for the primary or any additional outcome are statistically significant. Failure to submit or publish findings because of lack of statistical significance is an important cause of publication bias" (http://www.icmje.org/). *The Journal*seeks original work which then undergoes peer-reviewed scrutiny with editorial oversight. Over the years *The Journal* has accepted articles that clearly documented a lack of efficacy of therapeutic agents or procedures. *The Journal* believes that evidence-based medicine must be based on the best evidence, which may include negative studies.

Conflict of Interest/Disclosure Policy

According to the World Association of Medical Editors (WAME):

"Conflict of interest (COI) exists when there is a divergence between an individual's private interests (competing interests) and his or her responsibilities to scientific and publishing activities such that a reasonable observer might wonder if the individual's behavior or judgment was motivated by considerations of his or her competing interests. COI in medical publishing affects everyone with a stake in research integrity including journals, research/academic institutions, funding agencies, the popular media, and the public. Journals are interested in COI as it relates to a specific manuscript.

"Everyone has COIs of some sort. Having a competing interest does not, in itself, imply wrongdoing. However, it constitutes a problem when competing interests could unduly influence (or be reasonably seen to do so) one's responsibilities in the publication process. If COI is not managed effectively, it can cause authors, reviewers, and editors to make decisions that, consciously or unconsciously, tend to serve their competing interests at the expense of their responsibilities in the publication process, thereby distorting the scientific enterprise. This consequence of COI is especially dangerous when it is not immediately apparent to others. In addition, the appearance of COI, even where none actually exists, can also erode trust in a journal by damaging its reputation and credibility."

Authors are required to disclose on the title page of the initial manuscript any potential, perceived, or real conflict of interest. Authors must describe the role of the study sponsor(s), if any, in 1) study design; 2) the collection, analysis, and interpretation of data; 3) the writing of the report; and 4) the decision to submit the manuscript for publication. Authors should include statements even when the sponsor had no involvement in the above matters. Authors should also state who wrote the first draft of the manuscript and whether an honorarium, grant, or other form of payment was given to anyone to produce the manuscript. If the manuscript is accepted for publication, the disclosure statements will be published.

Editors who make decisions about manuscripts have no COI with the authors or their institutions, study group, research funders, overlapping (similar or competing) research, etc. A list of COI for all Editors and Editorial Board members is available at http://www.jpeds.com/content/ed_board_bios. If Editors or Editorial Board members have a COI for particular manuscripts, they must recuse themselves as the handling Editor, in which case the manuscript will be assigned to a new Editor. Editorial Board members will serve as Guest Editors when appropriate (e.g., the author is an Editor of *The Journal of Pediatrics*, the authors of a manuscript are at the Editor's institution, the Editor has recused him/herself for whatever reason). Editors and Editorial Board members are blinded to any submissions for which they are authors.

Reviewers are required to disclose any real or potential conflicts of interest, as outlined in the Guidelines for Reviewers.

Additional information regarding conflicts of interest can be found at http://www.wame.org/conflict-of-interest-editorial#ref1, "Conflict of Interest in Peer-Reviewed Medical Journals: The World Association of Medical Editors (WAME) Position on a Challenging Problem." (This Editorial may appear in other medical and biomedical journals whose editors are members of WAME.)

Online Resources for Authors

A list of online resources that may be beneficial to English speaking and non-native English speaking authors is available by clickinghere.

Preparation of Manuscripts

General Information

Manuscripts are to be submitted via the Elsevier Editorial System (EES), the electronic submission website at http://ees.elsevier.com/jpeds. Aside from the required Medical Progress, Commentaries, Grand Rounds, and Workshop/Symposium Summary pre-submission proposals, the Editors will not assess proposals of other article types prior to submission. Authors should review carefully the Authors' Tutorial for the system at http://ees.elsevier.com/eeshelp/EES_Author_Tutorial.html. Manuscripts must adhere to the American Medical Association's (AMA) Manual of Style, as well as additional layout and length guidelines, outlined below. After submission, the corresponding author can log onto EES to view the status of the manuscript. All accepted manuscripts are subject to editorial revision and shortening. Authors should avoid redundancy between sections of text and between illustrations and text. Due to page limitations, the Editors may decide that figures, appendices, tables, acknowledgments, and other material be published in the online version of *The Journal* and referenced in the print edition; however, important methods and results should not be separated and should be included in the body of the text.

Letter of Submission

A letter of submission must accompany all submissions and provide the following information in accordance with the "Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication" available at http://www.icmje.org

- Disclosure of any prior publications or submissions (excluding rejected submissions) with any overlapping information, including studies and patients; a copy of the work(s) must be uploaded -OR- If there are no prior publications or submissions with any overlapping information, provide the following statement: "There are no prior publications or submissions with any overlapping information, including studies and patients." Additional information is available at http://jpeds.com/authorinfo#dup;
- A statement that the manuscript has not been and will not be submitted to any other journal while it is under consideration by *The Journal of Pediatrics*;
- A statement of any potential conflict of interest, real or perceived; this includes a description of the role of the study sponsor(s), if any, in: (1) study design; (2) the collection, analysis, and interpretation of data; (3) the writing of the report; and (4) the decision to submit the paper for publication. Include statements even when the sponsor had no involvement in the above matters. This information must also appear on the title page of the manuscript. Additional information is available at http://jpeds.com/authorinfo#conf;
- A statement of who wrote the first draft of the manuscript and whether an honorarium, grant, or other form of payment was given to anyone to produce the manuscript. This information must also appear on the title page of the manuscript;
- A statement that each author listed on the manuscript has seen and approved the submission of this version of the manuscript and takes full responsibility for the manuscript; if more than 6 authors, an explanation of the contributions of each author must be provided. Additional information is available at http://jpeds.com/authorinfo#auth.

Potential Reviewers

To assist with a prompt, fair review process, authors should provide in the letter of submission the *names, complete addresses, fax numbers, and e-mail addresses* of 5 to 7 potential reviewers who have the appropriate expertise to evaluate the manuscript. Potential reviewers must be outside of the authors' institution(s), with no known potential conflicts of interest. Failure to provide 5 to 7 potential reviewers may result in delays in the processing of your manuscript. Authors may also provide the names of persons who should not be asked to review the manuscript. Ultimately, the Editors reserve the right to choose reviewers.

Title Page

The title page should include authors' full names and highest academic degrees; departmental and institutional affiliations of each author; and sources of financial assistance or potential conflicts of interest, if any (see Conflicts of Interest/Disclosure Policy). Listed authors should include only those individuals who have made a significant, creative contribution to the manuscript as defined by the International Committee of Medical Journal Editors (www.icmje.org); a list of more than 6 authors must be justified to the Editors in the letter of submission. One author must be designated as the correspondent, with complete address, business telephone number, fax

number, and e-mail address. The corresponding author is responsible for communicating with the Editorial Office and all other co-authors; the Editorial Office will not provide status updates or decision information to anyone other than the corresponding author. Proofs and order forms for reprints will be sent to the corresponding author if the manuscript is published. Include a list of key words not in the title, as well as a short title (8-word maximum). Trade names of drugs and other products must not appear in the article title.

Abbreviations and Acronyms

A list of abbreviations and acronyms that appear >3 times should be included in the manuscript, along with the expansion of each. All abbreviations and acronyms should be expanded, followed by the abbreviation or acronym in parentheses, upon first use in the abstract, as well as in the first use in the body of the manuscript. All subsequent uses, including tables and figures, should use the abbreviation or acronym. Because abbreviations and acronyms are designed to assist readers, they should be limited to those defined in the AMA Manual of Style, those that are commonly used by general pediatricians, and those that shorten the names of study groups.

Drugs, Devices, and Other Products

Use nonproprietary names of drugs, devices, and other products, unless the specific trade name is essential to the discussion. The trade name may appear once in the Abstract and once in the Introduction or Methods section, followed by the nonproprietary name, manufacturer, and manufacturer location in parentheses; all other mention of the product must use the generic name. Trade names of drugs and other products must not appear in the article title.

Laboratory Values

Laboratory values should be described in metric mass units. The International System of Units (SI units) should be provided in parentheses immediately after metric units. Conversion tables are available (see JAMA 1986; 255:2329-39 or Ann Intern Med 1987; 106:114-29).

References

References must be numbered according to order of appearance in the text and use superscript or parenthesized numbers in the text. For reference style, follow the Vancouver format set forth in "Uniform Requirements for Manuscripts Submitted to Biomedical Journals" (http://www.icmje.org/), with journal abbreviations according to Cumulated Index Medicus. If the reference is to an abstract, letter, or editorial, place the appropriate term in brackets after the title. Citations should refer to primary analyses (ie, original content), instead of literature reviews and secondary analyses.

Examples of references (if 6 or fewer authors or editors, list all; if 7 or more, list first 6 and add et al):

For journal articles

Kramarz P, DeStefano F, Gargiullo PM, Chen RT, Lieu TA, Davis RL, et al. Does influenza vaccination prevent asthma exacerbations in children? J Pediatr 2001; 138:306-10.

Cozzi F, Morini F. Possible mechanisms of pacifier protection against SIDS [letter]. J Pediatr 2001;138:783.

For Articles in Press (online)

Hellems MA, Gurka KK, Hayden GF. A review of *The Journal of Pediatrics*: The first 75 years. J Pediatr (2008). doi:10.1016/j.jpeds.2008.08.049.

For books

Rosenstein BJ, Fosarelli PD. Pediatric pearls: the handbook of practical pediatrics. 3rd ed. St Louis: Mosby; 1997.

Virginia Law Foundation. The medical and legal implications of AIDS. Charlottesville (VA): The Foundation; 1987.

For chapters in books

Neufeld EF, Muenzer J. The mucopolysaccharidoses. In: Scriver CR, Beaudet AL, Sly WS, et al, eds. The metabolic and molecular bases of inherited diseases. New York: McGraw-Hill; 2001. p. 3421-52.

For websites

American Medical Association [homepage on the Internet]. Chicago: The Association; c1995-2002 [updated 2001 Aug 23; cited 2002 Aug 12]. AMA Office of Group Practice Liaison; [about 2 screens]. Available from: http://www.ama-assn.org/ama/pub/category/1736.html

EndNote

If using EndNote, The Journal of Pediatrics' output style can be found by typing "Journal of Pediatrics" into the Publication Name field. Please be sure to double-space the Reference section.

Tables

Tables are to be uploaded into EES as separate documents, formatted in .doc or .xls. A concise title should be supplied for each. Tables should be self-explanatory and should supplement, not duplicate the text. If a table or any data therein have been previously published, a footnote must give full credit to the original source. (See Permissions).

Figure Legends

Each illustration must be provided with a legend. Legends should be double-spaced on a separate page within the main document file following the references page. If an illustration has been previously published, the legend must give full credit to the original source. (SeePermissions).

Illustrations

A reasonable number of black and white illustrations will be reproduced at no cost to the authors, but the Editors retain the right to edit or delete illustrations and tables for the sake of brevity (See Article Type). Figure legends must be separate from the figures. (See Figure Legends) Each figure must be uploaded into EES as a separate file.

All illustrations must be clear and legible. Patterns or shadings must be distinguishable from each other and dark enough for reproduction. Lines, symbols, and letters must be smooth and complete. Illustrations may be original drawings in black ink with typographic lettering; typewritten or freehand lettering is unacceptable. The integrity of scientific images (eg, gels, micrographs, etc.) must be maintained in figures submitted to The Journal (see JAMA's policy on Image Integrity: http://jama.ama-assn.org/misc/ifora.dtl#ImageIntegrity).

Color illustrations are acceptable. Note that the colors must be dark enough and of sufficient contrast for reproduction. Fluorescent colors do not reproduce well. Avoid using color descriptors in the figure legends. Authors are expected to pay the extra cost associated with reproduction of color illustrations in the print version of *The Journal of Pediatrics* (currently $650 for the first color figure and $100 each for additional figures in the same manuscript). After final acceptance the publisher will contact authors with pricing and instructions for payment. If the Editors determine that color illustrations will be clear in black and white, the illustrations can be published in black and white in the print version and in color in the online version at no cost to the authors.

All images should be at least 5 inches wide. Images may be provided in a variety of formats: TIFF, BMP, JPEG, GIF, PNG, EPS, PPT, and DOC. The best formats are TIFF and JPEG. Line art (black lines on a white background) must be created at 1000 dpi. Combination line art (e.g. line art with gray fill patterns) must be created at 1200 dpi. Black and white or color photographs must be created at 300 dpi. For complete instructions, please go to http://ees.elsevier.com/jpeds/ and click on Artwork Guidelines If you are unable to upload illustrations into EES, please go to http://ees.elsevier.com/jpeds/ and click on **Help** to contact EES Technical Support.

Multi-Media Files

In addition, short movie, animation, or audio files can be published in the online version of *The Journal*; a reference to the electronic material would appear in the print version. Each file should be uploaded into EES as a "multi-media" file. For specifications for these types of files, please go to http://ees.elsevier.com/jpeds/ and click on Artwork Guidelines.

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information as to source. In most cases this will mean contacting the publisher of the original work. Although the publisher may not own copyright in all cases, the publisher usually has the exclusive right to grant the permission. For further information on how to obtain permission, please go to http://jpeds.com/authorinfo#per.

Written permission from the patient, or parent or guardian of a minor child, is required for publication of photographs or other images that include recognizable portions of the face; black bars over the eyes are not sufficient. Patient initials should not be used anywhere in the text, tables, or figures.

Because articles appear in both the print and online versions of *The Journal of Pediatrics*, the wording of the letter should specify permission in all forms and media.

Article Types

Original Articles

Full-length manuscripts for the Original Articles section of The Journal of Pediatrics must include a structured abstract of less than 250 words, to appear after the title page, with the following headings: Objective(s), Study design, Results, and Conclusion(s). The Objective(s) should put the study in context with the current literature (i.e., what is new, not textbook background information) and reflect the purpose of the study, that is, the hypothesis that is being tested or the question being asked. The Study design should include the study methodology, the setting for the study, the subjects (number and type), the treatment or intervention, principal outcomes measured, and the type of statistical analysis. The Results section should include the outcome of the study and statistical significance, if appropriate. The Conclusion(s) states the significance of the results and limitations of the study.

Original research articles should be approximately 18 double-spaced, numbered pages, including the title page, references, figures, and tables. Failure to comply with length restrictions may result in a delay in the processing of your paper. The following length targets are recommended for Original Articles:

Structured Abstract: less than 250 words
Introduction: 1 page
Methods: 2-3 pages
Results: 2-3 pages
Discussion: 3-5 pages
Graphics: 4 Tables + Figures total for OA
References: 30

Clinical and Laboratory Observations

Clinical and Laboratory Observations (CLOs) are either: (1) "case reports" that provide novel insight into pathophysiology, diagnosis, or treatment of an entity that does not represent a coincidental association; (2) small series of diagnostic or therapeutic interventions; or (3) brief, focused studies related to a topic of interest to pediatricians. Please note that CLOs are not designed to present information that is generally available in textbooks, even if the reported entity is novel. CLOs are designed to provide readers with new information and stimulate new approaches to diagnosis, clinical management, or research. CLOs should be approximately 9 double-spaced, numbered manuscript pages, including the title page, references, figures, and tables; the text should be less than 1000 words with a brief, unstructured abstract of less than 50 words. A combined total of 2 illustrations and tables and approximately 10 references are recommended.

Insights and Images

Submissions to the Insights and Images section of *The Journal of Pediatrics* should succinctly illustrate clinical problems or solutions of interest to readers and must fit on one published page. At least one publishable figure is required; however, captioned photographs, brief anecdotes or analyses, cartoons, short movie, animation, audio files, and supplemental figures (see Illustrations) are welcome. All material must be original, and a fresh, useful insight must be offered. Text must be less than 300 words and is subject to shortening if the text and figure(s) do not fit on one published page. All references will be published in the online version of *The Journal*. Additional figure(s) may be placed in the online version of *The Journal* if the piece exceeds one published page. Original, signed, written permission from the patient, or parent or guardian of a minor child, is required for publication of recognizable images in all forms and media. (See Permissions) Authors will be required to sign a standard copyright transfer agreement; therefore, all submissions must have a title. Submissions will undergo review by the

Editors, and their decision to accept or reject will be final.

Rediscovering the Physical Exam

Submissions to the Rediscovering the Physical Exam section of *The Journal of Pediatrics* should succinctly illustrate "typical" physical examinations features-both normal findings as well as classic features of disease. This section will utilize descriptive text and well-illustrated examples and must fit on 1-2 published pages. At least one publishable figure is required; however, captioned photographs, brief anecdotes or analyses, cartoons, short movie, animation, audio files, and supplemental figures (see Illustrations) are strongly encouraged. Text is subject to shortening if the text and figure(s) do not fit on 1-2 published pages. All references will be published in the online version of The Journal. Additional figure(s) may be placed in the online version of The Journal if the piece exceeds 1-2 published pages; a reference to the electronic material will appear in the print version. Original, signed, written permission from the patient, or parent or guardian of a minor child, is required for publication of recognizable images in all forms and media. (See Permissions) Authors will be required to sign a standard copyright transfer agreement; therefore, all submissions must have a title. Submissions will undergo review by the Editors, and their decision to accept or reject will be final.

Letters to the Editor

Letters to the Editor should pertain to papers published in *The Journal of Pediatrics* within the past year or to related topics and should not exceed 300 words. Provide a unique title for the Letter on the title page with complete contact information for the author(s). Double-space the text of the Letter. References, including reference to the pertinent article(s) in *The Journal*, should conform to style for manuscripts (see References).

Medical Progress

Authors who wish to propose a review article for the Medical Progress section must e-mail a proposal letter and formal academic outline of the manuscript (i.e., introduction, thesis statement, supporting ideas, and conclusion), identifying the article type for the Editors to assess, and outline to journal.pediatrics@cchmc.org for approval *before* submitting the full manuscript. (Editors will not assess full manuscripts prior to submission.) Medical Progress articles should focus on the latest advancements in rapidly changing fields. Practical guidelines, diagnostic algorithms, commentary of case management issues, and articles involving outcomes research may be appropriate for this section. Authors are encouraged to interpret cited works, which should lead to logical conclusions and recommendations. It is understood that some of these conclusions and recommendations will necessarily be tentative, but, if labeled clearly as such, are an essential part of the process. Medical Progress manuscripts should be approximately 15 double-spaced, numbered pages, including the title page, references, figures, and tables.

Commentaries

Authors who wish to propose a Commentary must e-mail a proposal letter and formal academic outline of the manuscript (i.e., introduction, thesis statement, supporting ideas, and conclusion), identifying the article type for the Editors to assess, to journal.pediatrics@cchmc.org for approval *before* submitting the full manuscript. (Editors will not assess full manuscripts prior to submission.) Commentaries should serve as a forum for governmental health policies, economic issues, medical/scientific ethics, psychosocial issues, and international health, particularly in the developed world. Commentaries should be approximately 18 double-spaced, numbered pages, including the title page, references, figures, and tables.

Grand Rounds

Authors who wish to propose a manuscript for the Grand Rounds section must e-mail a proposal letter and formal academic outline of the manuscript (i.e., introduction, thesis statement, supporting ideas, and conclusion), identifying the article type for the Editors to assess, to journal.pediatrics@cchmc.org for approval *before* submitting the full manuscript. (Editors will not assess full manuscripts prior to submission.) Grand Rounds manuscripts should be informative and timely for the physician, containing up-to-date, but not necessarily new, unpublished data. Often these manuscripts will be reviews of topics of current interest, similar to Grand Rounds at a major academic center. Aspects such as innovative clinical management, new diagnostic techniques, and pathologic mechanisms should be stressed. Manuscripts for the Grand Rounds section may be prepared in traditional clinicopathologic conference (CPC) style or as a didactic discussion. Grand Rounds manuscripts should be approximately 16 double-spaced, numbered pages, including the title page, references, figures, and tables.

Workshop/Symposium Summary

Authors who wish to propose a manuscript for the Workshop/Symposium Summary section must e-mail a proposal letter and formal academic outline of the manuscript (i.e., introduction, thesis statement, supporting ideas, and conclusion), identifying the article type for the Editors to assess, to journal.pediatrics@cchmc.org for approval *before* submitting the full manuscript. (Editors will not assess full manuscripts prior to submission.) Workshop/Symposium Summary manuscripts should succinctly summarize scientific, single topic, consensus workshops/symposia that took place less than one year prior to submission and would be of interest to the readership of The Journal. A summary submitted for this section must be the only publication for the workshop; The Journal will not consider summaries that have been or will be published in whole or in part, excluding the workshop/symposium description/abstract in the meeting program.

Workshop/Symposium Summary manuscripts should be approximately 18 double-spaced, numbered pages, including title page, references, tables, and figures. If the manuscript significantly exceeds the suggested length target, it should be proposed as a sponsored Supplement to The Journal (see Supplement). An abstract should not be provided, and online only appendices, tables, and figures are not encouraged. However, authors are welcome to include videos, cartoons, audio clips, etc. as multi-media files (see Multi-Media).

AMSPDC Section

Pages of *The Journal of Pediatrics* are reserved for the Association of Medical School Pediatric Department Chairs, Inc. (AMSPDC), which is solely responsible for their content. Authors interested in submitting to this section should contact AMSPDC directly. All other manuscripts must be submitted as detailed above by each article type.

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Announcements and Upcoming Events

Announcements of scheduled meetings, symposia, or postgraduate courses of interest to the pediatric readership may be sent to the Editorial Office via e-mail for consideration at least 2 months in advance of the meeting date or deadline. News items of general interest to pediatricians and related specialists will also be considered. Approved Announcements will be published in the online version of *The Journal of Pediatrics*. *The Journal* requests a reciprocal posting back to www.jpeds.com; however, the organization's decision to link to*The Journal's* website will not be a barrier to *The Journal's* willingness to post this Announcement or Event.

Submissions for the Announcements and Upcoming Events section must include the following information (* = required):

Event Title *
Dates *
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Article types that are not detailed above (Editorials, 50 Years Ago in *The Journal of Pediatrics*, The Editors' Perspectives, Current Best Evidence, European Paediatric Association Pages) cannot be submitted without a direct request from the Editors of *The Journal of Pediatrics*.

Guidelines for Reviewers

By becoming familiar with the Guidelines for Reviewers, authors can write their manuscripts based on the criteria by which the reports will be judged. In an effort to provide authors with detailed requirements and expectations that may increase the potential for acceptance,*The Journal of Pediatrics'* Guidelines for Reviewers can be accessed by clicking here. Additionally, the responsibilities of reviewers can be accessed by clicking here.

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The Journal of Pediatrics does not publish book reviews. Books sent to the Editor will not be returned.

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All inquiries concerning manuscript decisions should be in writing from the designated corresponding author (journal.pediatrics@cchmc.org). The complete manuscript file will be forwarded to the appropriate Editor for response to the inquiry. The Editors are not available for telephone calls regarding decisions.

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The retraction guidelines published by the Committee on Publication Ethics (COPE) can be found at http://publicationethics.org/files/u661/Retractions_COPE_gline_final_3_Sept_09__2_.pdf

Journals and Institutions on Research Integrity Cases from the Committee on Publication Ethics (COPE)

Guidance from the Committee on Publication Ethics (COPE) regarding cooperation between research institutions

and journals on research integrity cases can be found at http://publicationethics.org/files/Research_institutions_guidelines_final.pdf.

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o A statement that the manuscript has not been and will not be submitted to any other journal while it is under consideration by *The Journal of Pediatrics*;
o A statement of any potential conflict of interest, real or perceived; this includes a description of the role of the study sponsor(s), if any, in: (1) study design; (2) the collection, analysis, and interpretation of data; (3) the writing of the report; and (4) the decision to submit the paper for publication. Include statements even when the sponsor had no involvement in the above matters. This information must also appear on the title page of the manuscript.
o A statement of who wrote the first draft of the manuscript and whether an honorarium, grant, or other form of payment was given to anyone to produce the manuscript. This information must also appear on the title page of the manuscript;
o A statement that each author listed on the manuscript has seen and approved the submission of this version of the manuscript and takes full responsibility for the manuscript; if more than 6 authors, an explanation of the contributions of each author must be provided (See Authorship Criteria).

• Title page

o Title of article;
o Full name(s), academic degrees, and affiliations of authors;
o Name, address, e-mail address, telephone and fax numbers of corresponding author;
o Name of reprint request author or notation of no reprints;
o List of key words not in the title;
o Source of funding and conflict of interest statement, if applicable;

• Abstract (double-spaced), structured (less than 250 words) for Original Article or unstructured (50 words) for Clinical and Laboratory Observations
• Article proper (double-spaced), including

o List of abbreviations (double-spaced)
o References (double-spaced), on a separate page
o Figure legends (double-spaced), on a separate page

• Tables including title (double-spaced), each on a separate page, saved as a separate file
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Updated February 2013

ANEXO E – Confirmação da submissão do artigo original à revista International Journal of Eating Disorders

João Aroucha <joaoaroucha@gmail.com>

International Journal of Eating Disorders - Manuscript # IJED-13-0065

1 mensagem

rstriegel@wesleyan.edu <rstriegel@wesleyan.edu> 23 de fevereiro de 2013 22:41
Para: joaoaroucha@gmail.com, mail.pro.jota@gmail.com

23-Feb-2013

Dear Mr. Aroucha:

Your manuscript entitled "PREVALENCE OF TEMPOROMANDIBULAR DISORDERS AND EATING DISORDERS ACCORDING TO AGE IN STUDENTS" has been successfully submitted online and is presently being given full consideration for publication in the International Journal of Eating Disorders.

Your manuscript # is IJED-13-0065.

Please mention the above manuscript # in all future correspondence regarding this submission.

You can view the status of your manuscript at any time by checking your Author Center after logging into http://mc.manuscriptcentral.com/ijed .

If you have difficulty using this site, please contact our Support Desk at support@scholarone.com.

Thank you for submitting your manuscript to the International Journal of Eating Disorders.

Sincerely,

Prof. Ruth Striegel
Editor, International Journal of Eating Disorders
rstriegel@wesleyan.edu

ANEXO F – Normas da revista International Journal of Eating Disorders

International Journal of Eating Disorders

Edited By: Ruth H. Striegel

Impact Factor: 2.947

ISI Journal Citation Reports © Ranking: 2011: 19/110 (Psychology Clinical); 20/74 (Nutrition & Dietetics); 20/75 (Psychology); 27/117 (Psychiatry (Social Science))

Online ISSN: 1098-108X

Author Guidelines

ORIGINALITY

The journal accepts for review manuscripts that have not been published or are not currently elsewhere under review.

CONTENT TYPES

Manuscripts published by IJED include: (1) Original Articles; (2) Brief Reports; (3) Critical analysis and Synthesis (reviews, articles on methodology or theoretical articles); (4) Commentaries; (5) Clinical Case Reports; (6) "An Idea Worth Researching;" and (7) Letters to the Editor. All word limits relate to the body of the text (i.e., not including abstract, references, tables or figures). These are maximum lengths, and authors are encouraged to keep their reports as short as possible while communicating clearly. The review criteria will include appropriateness of length.

To summarize, the article types are:

(1) Empirical Articles reporting substantive research that is novel, definitive or complex enough to require a longer communication.

Word Limit: 7,000 words, excluding abstract, references, tables and figures
Abstract: 250 words
References: 40
Figures/Tables: a maximum of 8 essential tables/figures, overall

(2) Brief Reports of research that can be communicated relatively succinctly, including straightforward research designs, pilot studies and replications.

Word Limit: 1,500 words, excluding abstract, references, tables and figures
Abstract: 200 words
References: 20
Figures/Tables: a maximum of 2 essential tables/figures, overall

(3) Critical Analysis and Synthesis/Review articles introduce novel theoretical frameworks, address methodological issues of broad application, summarize novel clinical ideas within a theoretical and research framework (previously known as Clinical Forum papers), or critically review the status of a given research area and propose new directions for research and/or practice. Narrative and meta-analytic review papers are also welcomed if they address such issues.

Word Limit: 7,000 words, excluding abstract, references, tables and figures
Abstract: 250 words
References: 100
Figures/Tables: no maximum, but should be appropriate to the material covered

(4) Commentaries are written only at the invitation of the Editors, when multiple perspectives on or critical appraisal of an article would assist in placing that article in context.

Word Limit: 800 - 1,500 words, excluding abstract, references, tables and figures
Abstract: no abstract
References: 5, using the footnote format rather than the journal's standard format
Figures/Tables: none

(5) Clinical Case Reports detail key elements of cases where there is novelty in the presentation, pathology or treatment, and where that novelty will inform clinicians and researchers about rare presentations or novel ideas. This category will often be appropriate to rare biological or psychological presentations.

Word Limit: 3,000 words, excluding abstract, references, tables and figures

Abstract: 150 words

References: 20

Figures/Tables: a maximum of 2 essential tables/figures, overall

(6) "An idea Worth Researching" is a format where authors propose an idea that may not yet have adequate empirical support or be ready for full empirical testing, but hold great promise for advancing our understanding of eating disorders. Authors are encouraged to write a piece that is bold, forward looking, and suggestive of new and exciting avenues for research and/or practice in the field.

Word Limit: 1,500 words maximum, excluding abstract, references, tables and figures

Abstract: no abstract

References: 5 maximum, in footnote format

Figures/Tables: a maximum of 2 essential tables/figures, overall

(7) Letters to the Editor should address key issues raised by articles in the previous edition of the journal. To facilitate such dialogue, letters need to be submitted within one week of the edition of the journal that they refer to.

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Abstracts: no abstract

References: 3 maximum, in footnote format.

Figures/Tables: None

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General Format

Manuscripts must be typed in English and double-spaced throughout, with margins of at least one inch at the top, bottom, and both sides of each page. All manuscripts are subject to copyediting; however, it is the primary responsibility of the authors to proofread thoroughly and ensure correct spelling and punctuation, completeness and accuracy of references, clarity of expression, thoughtful construction of sentences, and legible appearance prior to the manuscript's submission. Preferred spelling follows Webster's New Collegiate Dictionary or Webster's Third New International Dictionary. The manuscript should conform to accepted English usage and syntax. Use headings to indicate the manuscript's general organization. Do not use a heading for the introduction. In general, manuscripts will contain one of several levels of headings. Centered upper case headings are reserved for Methods, Results, and Discussion sections of the manuscript. Subordinate headings (e.g., the Participants or Procedure subsection of Methods) are typed flush left, underlined, in upper case and lower case letters. The text begins a new paragraph. Number all pages of the manuscript except the figures (including title page and abstract) consecutively. Parts of the manuscripts should be arranged in the following sequence:

Number all pages of the manuscript except the figures (including title page and abstract) consecutively. Parts of the manuscripts should be arranged in the following sequence:

(1) Title page. (numbered 1) Titles should be short and specific, conveying the main point of the article. The title page should include the full names, titles, and affiliations of all authors, and an abbreviated title (Running Head) that should not exceed 50 characters, counting letters, spacing, and punctuation. The Running Head should be typed in upper case letters centered at the bottom of the title page. Each page of the manuscript (excluding figures) should be identified by typing the first two or three words of the full title in the upper right-hand corner above the page number. No running head is required for letters to the editor.

(2) Abstract. (word maximum varies by article type) For article types requiring an abstract, the abstract should be typed as a single paragraph on a separate page, numbered 2. Type the word "Abstract" in upper and lower case letters, centered at the top of page 2. Provide the following information in the form of a structured abstract, using these headings: **Objective:** briefly indicate the primary purpose of the article, or major question addressed in the study. **Method:** indicate the sources of data, give brief overview of methodology, or, if review article, how the literature was searched and articles selected for discussion. For research based articles, this section should briefly note study design, how participants were selected, and major study measures. **Results:**summarize the key findings. **Discussion:** indicate main clinical, theoretical, or research applications/implications. The *Journal* will continue to use unstructured abstracts for case reports.

(3) Text. Begin the text on page 3 and be sure to identify each page with the short title typed in the upper right-hand corner above the page number. Type the full title of the manuscript centered at the top, and then begin the text. The full title appears on page 3 only. Indent all paragraphs. The maximum length for article submissions is specified for each manuscript type. Authors are advised that content be conveyed as concisely as possible.

(4) References. Begin on separate page, with the word "References" typed in upper and lower case letters, centered at the top of the page.

(5) Appendices. Type each appendix on a separate page labeled "Appendix A, B", etc., in the order in which they are mentioned in the text.

(6) Footnotes. Start on separate page.

(7) Tables. Tables should be double-spaced, including all headings, and should have a descriptive title. If a table extends to another page, so should all titles and headings. Each table should be numbered sequentially in Arabic numerals and begin on a new page. Be sure to explain abbreviations in tables even if they have already been explained in-text. Consider the tables and figures to be self-contained and independent of the text. They should be interpretable as stand-alone entities.

(8) Figure captions. Start on separate page. Each figure caption should have a brief title that describes the entire figure without citing specific panels, followed by a description of each panel. Figure captions should be included in the submitted manuscript as a separate section. Be sure to explain abbreviations in figures even if they have already been explained in-text. Consider the tables and figures to be self-contained and independent of the text. They should be interpretable as stand-alone entities. Axes for figures must be labeled with appropriate units of measurement and description.

(9) Acknowledgements/Disclosure of Conflicts. Start on a separate page. Any possible conflict of interest, financial or otherwise, related to the submitted work must be clearly indicated in the manuscript. Acknowledge significant contributions that do not warrant authorship; list sources of support (e.g., federal, industry, or other funding).

Informed Consent

The Methods section should include a statement that the research was reviewed and approved by an institutional review board, and that participation involved informed consent.

Presenting Statistical Data in Text

For additional detail regarding statistical requirements for the manuscript see IJED Statistical Formatting Requirements. For more detailed background information on statistical analyses and their rationale authors are referred to IJED Statistical Reporting Guidelines.

References

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Except as noted for Commentaries, “Ideas Worth Researching” and Letters to the Editor, referencing follows the Vancouver method of reference citation. In this system, references are numbered consecutively in the order in which they are first mentioned in the text. Identify each reference in text, tables, and legends by Arabic numbers. All references cited should be listed numerically at the end of the paper. Prepare citations according to the style used in Index Medicus and the International list of periodical title word abbreviations (ISO 833).

All reference citations in the text should appear in the reference list. When there are less than seven authors, each must be listed in the citation. When seven or more authors, list the first six followed by et al. after the name of the sixth author. Representative examples are as follows:

Journal Article: 1. Endicott J, Spitzer RL. A diagnostic interview: The schedule for affective disorders and schizophrenia. Arch Gen Psychiatry 1978;35:837-844.

Book Chapter: 2. Fairburn CG, Cooper Z. The eating disorders examination (12th ed). In: Fairburn CG, Wilson GT, editors. Binge eating: nature, assessment, and treatment. New York: The Guilford Press, 1993, p. 317-331.

Book: 3. Tudor I. Learner-centeredness as language education. Cambridge: Cambridge University Press; 1996.

Preparation of figures. To ensure the highest quality print production, your figures must be submitted in TIFF format according to the following minimum resolutions:

- 1200 dpi (dots per inch) for black and white line art (simple bar graphs, charts, etc.)
- 300 dpi for halftones (black and white photographs)
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Vector-based figures (usually created in Adobe Illustrator) should be submitted as EPS. Do not submit figures in the following formats:JPEG,GIF,Word, Excel, Lotus1-2-3, PowerPoint, PDF.

Graphs must show an appropriate grid scale. Each axis must be labeled with both the quantity measured and the unit of measurement. Color figures must be submitted in a CMYK colorspace. Do not submit files as RGB. All color figures will be reproduced in full color in the online edition of the journal at no cost to authors. Authors are requested to pay the cost of reproducing color figures in print. Authors are encouraged to submit color illustrations that highlight the text and convey essential scientific information. For best reproduction, bright, clear colors should be used.

Supplementary materials. Supplementary materials will be made available to readers as a link to the corresponding articles on the journal's website.

ADDITIONAL GUIDELINES FOR COPYEDITING OF MANUSCRIPTS FOR INTERNATIONAL JOURNAL OF EATING DISORDERS

1. Some authors use terms such as “anorexics” or “bulimics” as personal pronouns, referring to groups of individuals by their common diagnosis. Language of this type should be replaced with such terms as “individuals with anorexia nervosa”, “people with bulimia nervosa”, or “participants with eating disorders”.

2. The term “participants” should be used thought the article instead of “subjects”.

3. Standard rules will continue to govern the use of capitalization in Headings and Subheadings. However, when a minor word in a Heading or Subheading actually has special or unique meaning, the rule should be overridden.

4. When referring to gender, “males" and “females” should be used in cases where the study samples include both children (below age 18) and adults; when the participants comprise adults only, the terms “men” and “women” should be used. In articles that refer to children (i.e., below the age of 13), “boys” and “girls” should be used.

5. In articles that refer to genetic material, the names of genes should be spelled out in full the first time they appear in the text, after which an italicized abbreviation can be substituted.

6. The word “data” is plural; therefore, text should follow accordingly (for example, “The data show…the data are … the data were…”).

7. For information on how to present *p* values and other standard measurements see IJED Statistical Formatting Requirements

SUBMISSION

Prepare your manuscript and illustrations in appropriate format, according to the instructions given here.

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Please be sure to study the Instructions and Forms given at the site carefully, and then let the system guide you through the submission process. Online help is available to you at all times during the process. You are also able to exit/re-enter at any stage before finally "submitting" your work. All submissions are kept strictly confidential. If you have any questions, do not hesitate to contact us at support@scholarone.com.
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REVIEW

Rigorous evaluation of submitted material by expert reviewers is essential to ensuring that the journal achieves its mission. To facilitate timely feedback to authors and to avoid burdening expert reviewers unduly, the journal utilizes a two-tiered review process for all contributions (whether invited or unsolicited). The first tier involves an initial editorial preview to be implemented within days of receipt of an article. If the article is considered to have potential for publication in the journal, the second tier involves peer review, typically by two to three experts. The Editor-in-Chief, at times, may delegate final decision making authority to one of the Associate Editors.

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limited merit (e.g., because of substantial methodological flaws or insufficiently novel contribution to the field) will not be sent out for peer review. Pre-screening of articles does not involve detailed evaluation.
Peer Review. Submissions that, based on editorial pre-screening, are considered of potential suitability for the journal are forwarded to members of the editorial board (and, on occasion, outside experts) for detailed evaluation and feedback. Expert reviewers are asked to evaluate the merit of an article based on the quality of methods applied, presentation, and overall contribution to the field. Reviewers are instructed to offer a thorough, constructive, and timely evaluation of all aspects of the article and to enumerate strengths and weaknesses. Authors are invited to recommend expert reviewers.
Exceptions to the peer-review procedures described above are made in the case of a) Letters to the Editor which, rather than being forwarded for additional peer review, are evaluated only by the Editor and one Associate Editor, and b) Commentaries, which are evaluated only by the action editor and one additional reviewer.

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??? Production Questions ???

Diane Grube

Fax: (717) 738-9479

E-mail: jrnlprodEAT@

ANEXO G - Critérios de Diagnóstico para Pesquisa das Desordens Temporomandibulares RDC/DTM

RDC - TMD

Research Diagnostic Criteria for
Temporomandibular Disorders

Português – BRASIL

Nome	Prontuário / Matrícula n°	RDC n°
Examinador	Data _____/_____/_____	

HISTÓRIA - QUESTIONÁRIO

Por favor, leia cada pergunta e marque somente a resposta que achar mais correta.

1. Como você classifica sua saúde em geral?

1 Excelente
2 Muito boa
3 Boa
4 Razoável
5 Ruim

2. Como você classifica a saúde da sua boca?

1 Excelente
2 Muito boa
3 Boa
4 Razoável
5 Ruim

3. Você sentiu dor na face, em locais como na região das bochechas (maxilares), nos lados da cabeça, na frente do ouvido ou no ouvido, nas últimas 4 semanas?

0 Não
1 Sim

[Se sua resposta foi **não**, PULE para a **pergunta 14.a**]
[Se a sua resposta foi **sim**, PASSE para a **próxima pergunta**]

4. Há quanto tempo a sua dor na face começou pela primeira vez?

[Se começou **há um ano ou mais**, responda a **pergunta 4.a**]
[Se começou **há menos de um ano**, responda a **pergunta 4.b**]

4.a. Há quantos anos a sua dor na face começou pela primeira vez?

☐☐ Ano(s)

4.b. Há quantos meses a sua dor na face começou pela primeira vez?

☐☐ Mês(es)

5. A dor na face ocorre?

1 O tempo todo
2 Aparece e desaparece
3 Ocorreu somente uma vez

6. Você já procurou algum profissional de saúde (médico, cirurgião-dentista, fisioterapeuta, etc.) para tratar a sua dor na face?

1 Não
2 Sim, nos últimos seis meses.
3 Sim, há mais de seis meses.

7. Em uma escala de 0 a 10, se você tivesse que dar uma nota para sua dor na face agora, NESTE EXATO MOMENTO, que nota você daria, onde 0 é "nenhuma dor" e 10 é "a pior dor possível"?

NENHUMA DOR **0 1 2 3 4 5 6 7 8 9 10** A PIOR DOR POSSÍVEL

8. Pense na pior dor na face que você já sentiu nos últimos seis meses, dê uma nota pra ela de 0 a 10, onde 0 é "nenhuma dor" e 10 é "a pior dor possível"?

NENHUMA DOR **0 1 2 3 4 5 6 7 8 9 10** A PIOR DOR POSSÍVEL

9. Pense em todas as dores na face que você já sentiu nos últimos seis meses, qual o valor médio você daria para essas dores, utilizando uma escala de 0 a 10, onde 0 é "nenhuma dor" e 10 é "a pior dor possível"?

NENHUMA DOR **0 1 2 3 4 5 6 7 8 9 10** A PIOR DOR POSSÍVEL

10. Aproximadamente quantos dias nos últimos seis meses você esteve afastado de suas atividades diárias como: trabalho, escola e serviço doméstico, devido a sua dor na face?

☐☐ Dias

11. Nos últimos seis meses, o quanto esta dor na face interferiu nas suas atividades diárias utilizando uma escala de 0 a 10, onde 0 é "nenhuma interferência" e 10 é "incapaz de realizar qualquer atividade"?

NENHUMA INTERFERÊNCIA **0 1 2 3 4 5 6 7 8 9 10** INCAPAZ DE REALIZAR QUALQUER ATIVIDADE

12. Nos últimos seis meses, o quanto esta dor na face mudou a sua disposição de participar de atividades de lazer, sociais e familiares, onde 0 é "nenhuma mudança" e 10 é "mudança extrema"?

NENHUMA MUDANÇA **0 1 2 3 4 5 6 7 8 9 10** MUDANÇA EXTREMA

13. Nos últimos seis meses, o quanto esta dor na face mudou a sua capacidade de trabalhar (incluindo serviços domésticos) onde 0 é "nenhuma mudança" e 10 é "mudança extrema"?

NENHUMA MUDANÇA **0 1 2 3 4 5 6 7 8 9 10** MUDANÇA EXTREMA

14.a. Alguma vez sua mandíbula (boca) já ficou travada de forma que você não conseguiu abrir totalmente a boca?

☐ 0 Não

☐ 1 Sim

[Se você **nunca** teve travamento da mandíbula, PULE para a **pergunta 15.a**]
[Se **já teve** travamento da mandíbula, PASSE para a **próxima pergunta**]

14.b. Este travamento da mandíbula (boca) foi grave a ponto de interferir com a sua capacidade de mastigar?

☐ 0 Não

☐ 1 Sim

15.a. Você ouve estalos quando mastiga, abre ou fecha a boca?

☐ 0 Não

☐ 1 Sim

15.b. Quando você mastiga, abre ou fecha a boca, você ouve um barulho (rangido) na frente do ouvido como se fosse osso contra osso?

☐ 0 Não

☐ 1 Sim

15.c. Você já percebeu ou alguém falou que você range (ringi) ou aperta os seus dentes quando está dormindo?

0 Não

1 Sim

15.d. Durante o dia, você range (ringi) ou aperta os seus dentes?

0 Não

1 Sim

15.e. Você sente a sua mandíbula (boca) "cansada" ou dolorida quando você acorda pela manhã?

0 Não

1 Sim

15.f. Você ouve apitos ou zumbidos nos seus ouvidos?

0 Não

1 Sim

15.g. Você sente que a forma como os seus dentes se encostam é desconfortável ou diferente/ estranha?

0 Não

1 Sim

16.a. Você tem artrite reumatóide, lúpus, ou qualquer outra doença que afeta muitas articulações (juntas) do seu corpo?

0 Não

1 Sim

16.b. Você sabe se alguém na sua família, isto é seus avós, pais, irmãos, etc. já teve artrite reumatóide, lúpus, ou qualquer outra doença que afeta várias articulações (juntas) do corpo?

0 Não

1 Sim

16.c. Você já teve ou tem alguma articulação (junta) que fica dolorida ou incha sem ser a articulação (junta) perto do ouvido (ATM)?

0 Não

1 Sim

[Se você **não** teve dor ou inchaço, PULE para **a pergunta 17.a**.]
[Se você **já teve**, dor ou inchaço, PASSE para a **próxima pergunta**]

16.d. A dor ou inchaço que você sente nessa articulação (junta) apareceu várias vezes nos últimos 12 meses (1 ano)?

0 Não

1 Sim

17.a. Você teve recentemente alguma pancada ou trauma na face ou na mandíbula (queixo)?

0 Não

1 Sim

[Se sua resposta foi **não**, PULE para a **pergunta 18**]
[Se sua resposta foi **sim**, PASSE para a **próxima pergunta**]

17.b. A sua dor na face (em locais como a região das bochechas (maxilares), nos lados da cabeça, na frente do ouvido ou no ouvido) já existia antes da pancada ou trauma?

0 Não

1 Sim

18. Durante os últimos seis meses você tem tido problemas de dor de cabeça ou enxaquecas?

0 Não

1 Sim

19. Quais atividades a sua dor na face ou problema na mandíbula (queixo), impedem, limitam ou prejudicam?

	NÃO	SIM
a. Mastigar	0	1
b. Beber (tomar líquidos)	0	1
c. Fazer exercícios físicos ou ginástica	0	1
d. Comer alimentos duros	0	1
e. Comer alimentos moles	0	1
f. Sorrir/gargalhar	0	1
g. Atividade sexual	0	1
h. Limpar os dentes ou a face	0	1
i. Bocejar	0	1
j. Engolir	0	1
k. Conversar	0	1
l. Ficar com o rosto normal: sem a aparência de dor ou triste	0	1

20. Nas últimas quatro semanas, o quanto você tem estado angustiado ou preocupado:

	Nem um pouco	Um pouco	Moderadamente	Muito	Extremamente
a. Por sentir dores de cabeça	0	1	2	3	4
b. Pela perda de interesse ou prazer sexual	0	1	2	3	4
c. Por ter fraqueza ou tontura	0	1	2	3	4
d. Por sentir dor ou "aperto" no peito ou coração	0	1	2	3	4
e. Pela sensação de falta de energia ou lentidão	0	1	2	3	4
f. Por ter pensamentos sobre morte ou relacionados ao ato de morrer	0	1	2	3	4
g. Por ter falta de apetite	0	1	2	3	4
h. Por chorar facilmente	0	1	2	3	4
i. Por se culpar pelas coisas que acontecem ao seu redor	0	1	2	3	4
j. Por sentir dores na parte inferior das costas	0	1	2	3	4
k. Por se sentir só	0	1	2	3	4
l. Por se sentir triste	0	1	2	3	4
m. Por se preocupar muito com as coisas	0	1	2	3	4
n. Por não sentir interesse pelas coisas	0	1	2	3	4
o. Por ter enjôo ou problemas no estômago	0	1	2	3	4
p. Por ter músculos doloridos	0	1	2	3	4
q. Por ter dificuldade em adormecer	0	1	2	3	4
r. Por ter dificuldade em respirar	0	1	2	3	4
s. Por sentir de vez em quando calor ou frio	0	1	2	3	4
t. Por sentir dormência ou formigamento em partes do corpo	0	1	2	3	4
u. Por sentir um "nó na garganta"	0	1	2	3	4
v. Por se sentir desanimado sobre o futuro	0	1	2	3	4
w. Por se sentir fraco em partes do corpo	0	1	2	3	4
x. Pela sensação de peso nos braços ou pernas	0	1	2	3	4
y. Por ter pensamentos sobre acabar com a sua vida	0	1	2	3	4
z. Por comer demais	0	1	2	3	4
aa. Por acordar de madrugada	0	1	2	3	4
bb. Por ter sono agitado ou perturbado	0	1	2	3	4
cc. Pela sensação de que tudo é um esforço/sacrifício	0	1	2	3	4
dd. Por se sentir inútil	0	1	2	3	4
ee. Pela sensação de ser enganado ou iludido	0	1	2	3	4
ff. Por ter sentimentos de culpa	0	1	2	3	4

21. Como você classificaria os cuidados que tem tomado com a sua saúde de uma forma geral?

1 Excelente
2 Muito bom
3 Bom
4 Razoável
5 Ruim

22. Como você classificaria os cuidados que tem tomado com a saúde da sua boca?

1 Excelente
2 Muito bom
3 Bom
4 Razoável
5 Ruim

23. Qual a data do seu nascimento?

Dia ☐☐ Mês ☐☐ Ano ☐☐☐☐

24. Qual seu sexo?

1 Masculino
2 Feminino

25. Qual a sua cor ou raça?

1 Aleútas, Esquimó ou Índio Americano
2 Asiático ou Insulano Pacífico
3 Preta
4 Branca
5 Outra [Se sua resposta foi **outra**, PASSE para as **próximas alternativas** sobre sua cor ou raça]
6 Parda
7 Amarela
8 Indígena

26. Qual a sua origem ou de seus familiares?

1 Porto Riquenho
2 Cubano
3 Mexicano
4 Mexicano Americano
5 Chicano
6 Outro Latino Americano
7 Outro Espanhol
8 Nenhuma acima [Se sua resposta foi **nenhuma acima**, PASSE para as **próximas alternativas** sobre sua origem ou de seus familiares]
9 Índio
10 Português
11 Francês
12 Holandês
13 Espanhol
14 Africano
15 Italiano
16 Japonês
17 Alemão
18 Árabe
19 Outra, favor especificar
_____
20 Não sabe especificar

27. Até que ano da escola / faculdade você freqüentou?

Nunca freqüentei a escola		0
Ensino fundamental (primário)	1ªSérie	1
	2ª Série	2
	3ª Série	3
	4ª Série	4
Ensino fundamental (ginásio)	5ª Série	5
	6ª Série	6
	7ª Série	7
	8ª Série	8
Ensino médio (científico)	1°ano	9
	2°ano	10
	3°ano	11
Ensino superior (faculdade ou pós-graduação)	1°ano	12
	2°ano	13
	3°ano	14
	4°ano	15
	5°ano	16
	6°ano	17

28a. Durante as 2 últimas semanas, você trabalhou no emprego ou em negócio pago ou não (não incluindo trabalho em casa)?

0 Não

1 Sim

[Se a sua resposta foi **sim**, PULE para a **pergunta 29**]
[Se a sua resposta foi **não**, PASSE para a **próxima pergunta**]

28b. Embora você não tenha trabalhado nas duas últimas semanas, você tinha um emprego ou negócio?

0 Não

1 Sim

[Se a sua resposta foi **sim**, PULE para a **pergunta 29**]
[Se a sua resposta foi **não**, PASSE para a **próxima pergunta**]

28c. Você estava procurando emprego ou afastado temporariamente do trabalho, durante as 2 últimas semanas?

1 Sim, procurando emprego

2 Sim, afastado temporariamente do trabalho

3 Sim, os dois, procurando emprego e afastado temporariamente do trabalho

4 Não

29. Qual o seu estado civil?

1 Casado (a) esposa (o) morando na mesma casa

2 Casado (a) esposa (o) não morando na mesma casa

3 Viúvo (a)

4 Divorciado (a)

5 Separado (a)

6 Nunca casei

7 Morando junto

30. Quanto você e sua família ganharam por mês durante os últimos 12 meses?
R$ ☐☐☐☐☐,☐☐

Não preencher. Deverá ser preenchido pelo profissional

- ☐ Até ¼ do salário mínimo
- ☐ De ¼ a ½ salário mínimo
- ☐ De ½ a 1 salário mínimo
- ☐ De 1 a 2 salários mínimos
- ☐ De 2 a 3 salários mínimos
- ☐ De 3 a 5 salários mínimos
- ☐ De 5 a 10 salários mínimos
- ☐ De 10 a 15 salários mínimos
- ☐ De 15 a 20 salários mínimos
- ☐ De 20 a 30 salários mínimos
- ☐ Mais de 30 salários mínimos
- ☐ Sem rendimento

31. Qual o seu CEP?
☐☐☐☐☐-☐☐☐

Muito Obrigado.
Agora veja se você deixou de responder alguma questão.

EXAME CLÍNICO

1. Você tem dor no lado direito da sua face, lado esquerdo ou ambos os lados?

0 Nenhum
1 Direito
2 Esquerdo
3 Ambos

2.Você poderia apontar as áreas aonde você sente dor ?

Direito	Esquerdo
0 Nenhuma	0 Nenhuma
1 Articulação	1 Articulação
2 Músculos	2 Músculos
3 Ambos	3 Ambos

3. Padrão de abertura:

0 Reto
1 Desvio lateral direito (não corrigido)
2 Desvio lateral direito corrigido ("S")
3 Desvio lateral esquerdo (não corrigido)
4 Desvio lateral esquerdo corrigido ("S")
5 Outro tipo _____
(Especifique)

4. Extensão de movimento vertical

Incisivo superior utilizado 11 21

a. Abertura sem auxílio sem dor ☐☐mm

b. Abertura máxima sem auxílio ☐☐mm

Dor Muscular	Dor Articular
0 Nenhuma	0 Nenhuma
1 Direito	1 Direito
2 Esquerdo	2 Esquerdo
3 Ambos	3 Ambos

c. Abertura máxima com auxílio ☐☐mm

Dor Muscular	Dor Articular
0 Nenhuma	0 Nenhuma
1 Direito	1 Direito
2 Esquerdo	2 Esquerdo
3 Ambos	3 Ambos

d. Trespasse incisal vertical ☐☐mm

5. Ruídos articulares (palpação)

a. abertura

Direito	Esquerdo
0 Nenhum	0 Nenhum
1 Estalido	1 Estalido
2 Crepitação grosseira	2 Crepitação grosseira
3 Crepitação fina	3 Crepitação fina
☐☐mm	☐☐mm
(Medida do estalido na abertura)	

b. Fechamento

Direito	Esquerdo
0 Nenhum	0 Nenhum
1 Estalido	1 Estalido
2 Crepitação grosseira	2 Crepitação grosseira
3 Crepitação fina	3 Crepitação fina
☐☐mm	☐☐mm
(Medida do estalido no fechamento)	

c. Estalido recíproco eliminado durante abertura protrusiva

Direito	Esquerdo
0 Não	0 Não
1 Sim	1 Sim
8 NA	8 NA
(NA: *Nenhuma das opções acima*)	

6. Excursões

a. Excursão lateral direita ☐☐mm

Dor Muscular	Dor Articular
0 Nenhuma	0 Nenhuma
1 Direito	1 Direito
2 Esquerdo	2 Esquerdo
3 Ambos	3 Ambos

b. Excursão lateral esquerda ☐☐mm

Dor Muscular	Dor Articular
0 Nenhuma	0 Nenhuma
1 Direito	1 Direito
2 Esquerdo	2 Esquerdo
3 Ambos	3 Ambos

c. Protrusão ☐☐mm

Dor Muscular	Dor Articular
0 Nenhuma	0 Nenhuma
1 Direito	1 Direito
2 Esquerdo	2 Esquerdo
3 Ambos	3 Ambos

d. Desvio de linha média ☐☐mm

1 Direito

2 Esquerdo

8 NA

(NA: *Nenhuma das opções acima*)

7. Ruídos articulares nas excursões

Ruídos direito

	Nenhum	Estalido	Crepitação grosseira	Crepitação fina
7.a Excursão Direita	0	1	2	3
7.b Excursão Esquerda	0	1	2	3
7.c Protrusão	0	1	2	3

Ruídos esquerdo

	Nenhum	Estalido	Crepitação grosseira	Crepitação fina
7.d Excursão Direita	0	1	2	3
7.e Excursão Esquerda	0	1	2	3
7.f Protrusão	0	1	2	3

INSTRUÇÕES, ÍTENS 8-10

O examinador irá palpar (tocando) diferentes áreas da sua face, cabeça e pescoço. Nós gostaríamos que você indicasse se você não sente dor ou apenas sente pressão (0), ou dor (1-3). Por favor, classifique o quanto de dor você sente para cada uma das palpações de acordo com a escala abaixo. Marque o número que corresponde a quantidade de dor que você sente. Nós gostaríamos que você fizesse uma classificação separada para as palpações direita e esquerda.

0 = *Somente pressão (sem dor)*
1 = *dor leve*
2 = *dor moderada*
3 = *dor severa*

8. Dor muscular extraoral com palpação	**Direita**				**Esquerda**			
a. Temporal posterior (1,0 Kg.) "Parte de trás da têmpora (atrás e imediatamente acima das orelhas)."	0	1	2	3	0	1	2	3
b. Temporal médio (1,0 Kg.) "Meio da têmpora (4 a 5 cm lateral à margem lateral das sobrancelhas)."	0	1	2	3	0	1	2	3
c. Temporal anterior (1,0 Kg.) "Parte anterior da têmpora (superior a fossa infratemporal e imediatamente acima do processo zigomático)."	0	1	2	3	0	1	2	3
d. Masseter superior (1,0 Kg.) "Bochecha/ abaixo do zigoma (comece 1 cm a frente da ATM e imediatamente abaixo do arco zigomático, palpando o músculo anteriormente)."	0	1	2	3	0	1	2	3
e. Masseter médio (1,0 Kg.) "Bochecha/ lado da face (palpe da borda anterior descendo até o ângulo da mandíbula)."	0	1	2	3	0	1	2	3
f. Masseter inferior (1,0 Kg.) "Bochecha/ linha da mandíbula (1 cm superior e anterior ao ângulo da mandíbula)."	0	1	2	3	0	1	2	3
g. Região mandibular posterior (estilo-hióideo/ região posterior do digástrico) (0,5 Kg.) "Mandíbula/ região da garganta (área entre a inserção do esternocleidomastóideo e borda posterior da mandíbula. Palpe imediatamente medial e posterior ao ângulo da mandíbula)."	0	1	2	3	0	1	2	3
h. Região submandibular (pterigóideo medial/ supra-hióideo/ região anterior do digástrico) (0,5 Kg.)"abaixo da mandíbula (2 cm a frente do ângulo da mandíbula)."	0	1	2	3	0	1	2	3
9. Dor articular com palpação								
a. Polo lateral (0,5 Kg.) "Por fora (anterior ao trago e sobre a ATM)."	0	1	2	3	0	1	2	3
b. Ligamento posterior (0,5 Kg.)"Dentro do ouvido (pressione o dedo na direção anterior e medial enquanto o paciente está com a boca fechada)."	0	1	2	3	0	1	2	3
10. Dor muscular intraoral com palpação								
a. Área do pterigóideo lateral (0,5 Kg.) "Atrás dos molares superiores (coloque o dedo mínimo na margem alveolar acima do último molar superior. Mova o dedo para distal, para cima e em seguida para medial para palpar)."	0	1	2	3	0	1	2	3
b. Tendão do temporal (0,5 Kg.) "Tendão (com o dedo sobre a borda anterior do processo coronóide, mova-o para cima. Palpe a área mais superior do processo)."	0	1	2	3	0	1	2	3

ANEXO H – TESTE DE ATITUDES ALIMENTARES (EAT-26)

Número | | | | |

Por favor, responda às seguintes questões:	Sempre	Muitas vezes	Ás vezes	Poucas vezes	Quase nunca	Nunca
1. Fico apavorado com a idéia de estar engordando						
2. Evito comer quando estou com fome						
3. Sinto-me preocupado com alimentos						
4. Continuar a comer em exagero faz com que eu sinta que não sou capaz de parar						
5. Corto meus alimentos em pequenos pedaços						
6. Presto atenção à quantidade de calorias dos alimentos que eu como						
7. Evito particularmente os alimentos ricos em carboidratos (ex. pão, arroz, batatas etc.)						
8. Sinto que os outros gostariam que eu comesse mais						
9. Vomito depois de comer						
10. Sinto-me extremamente culpado depois de comer						
11. Preocupo-me com o desejo de ser mais magro						
12. Penso em queimar calorias quando me exercito						
13. As pessoas me acham muito magro						
14. Preocupo-me com a idéia de haver gordura em meu corpo						
15. Demoro mais tempo para fazer minhas refeições do que as outras pessoas						
16. Evito comer alimentos que contenham açúcar						
17. Costumo comer alimentos dietéticos						
18. Sinto que os alimentos controlam a minha vida						
19. Demonstro autocontrole diante dos alimentos						
20. Sinto que os outros me pressionam para comer						
21. Passo muito tempo pensando em comer						
22. Sinto desconforto após comer doces						
23. Faço regimes para emagrecer						
24. Gosto de sentir meu estômago vazio						
25. Gosto de experimentar novos alimentos ricos em calorias						
26. Sinto vontade de vomitar após as refeições						

ANEXO I - TESTE DE AVALIAÇÃO BULÍMICA DE EDINBURGH – VERSÃO PARA ADOLESCENTES (BITE)

Bulimic Investigatory Test Edinburgh, BITE			
01	Você segue um padrão regular de alimentação?	( ) SIM	( ) NÃO
02	Você costuma seguir dietas de forma rigorosa?	( ) SIM	( ) NÃO
03	Você considera um fracasso quebrar a dieta uma vez?	( ) SIM	( ) NÃO
04	Você conta as calorias de tudo o que come, inclusive quando não esta de dieta?	( ) SIM	( ) NÃO
05	Você, de vez em quando, fica sem se alimentar por um dia inteiro? ***(Se a resposta for NÃO vá para a questão 07! Se for SIM, siga para a questão06.)***	( ) SIM	( ) NÃO
06	Se sua resposta foi SIM para a questão 05, com que freqüência você fica sem se alimentar por um dia inteiro? **PONHA O NÚMERO CORRESPONDENTE À SUA RESPOSTA AQUI (_____).**	Dia sim, dia não (5) 2-3 vezes por semana (4) Uma vez por semana (3) De vez em quando (2) Apenas uma vez (1)	
07	Utiliza algum dos seguintes métodos para perder peso? Com que freqüência?		

	Nunca	Raramente	Uma vez/semana	Duas ou três vezes/semana	Diariamente	Duas ou três vezes/ dia	Cinco vezes/ dia
Comprimidos para emagrecer							
Diuréticos							
Laxantes							
Provoca vômitos							

08	Os seus hábitos alimentares atrapalham sua vida?	( ) SIM	( ) NÃO
09	Você diria que a comida “domina” a sua vida?	( ) SIM	( ) NÃO
10	De vez em quando, você come até sentir-se mal fisicamente e ter que parar?	( ) SIM	( ) NÃO
11	Há momentos em que você **SÓ** consegue pensar em comida?	( ) SIM	( ) NÃO
12	Você come moderadamente em frente aos outros e, em compensação, exagera quando está sozinho?	( ) SIM	( ) NÃO
13	Você sempre consegue parar de comer quando quer?	( ) SIM	( ) NÃO
14	Você, de vez em quando, sente um desejo incontrolável de comer sem parar?	( ) SIM	( ) NÃO
15	Quando você está ansioso(a), tende a comer muito?	( )	( )

		SIM NÃO
16	A idéia de ficar gordo(a) apavora ?	( ) ( )
		SIM NÃO
17	Você, de vez em quando, come rapidamente grandes quantidades de alimento (fora das refeições)?	( ) ( )
		SIM NÃO
18	Você, alguma vez, sentiu vergonha de seus hábitos alimentares?	( ) ( )
		SIM NÃO
19	O fato de você não conseguir se controlar para comer o(a) preocupa?	( ) ( )
		SIM NÃO
20	Você busca na comida um conforto emocional?	( ) ( )
		SIM NÃO
21	Você costuma deixar comida no prato ao final de uma refeição?	( ) ( )
		SIM NÃO
22	Você engana os outros sobre o quanto come?	( ) ( )
		SIM NÃO
23	A quantidade que você come é proporcional à fome que sente?	( ) ( )
		SIM NÃO
24	Você já se alimentou de grande quantidade de alimentos em pouco tempo?	( ) ( )
	(Se a resposta for NÃO vá para a questão 28! Se for SIM, siga para a questão25)	SIM NÃO
25	Esse episódio o deixou deprimido?	( ) ( )
		SIM NÃO
26	Esses episódios acontecem apenas quando você está sozinho(a)?	( ) ( )
		SIM NÃO
27	Com que freqüência esses episódios acontecem?	Quase nunca (1)
		Uma vez por mês (2)
	PONHA O NÚMERO CORRESPONDENTE A SUA RESPOSTA AQUI (_____).	Uma vez por semana (3)
		Duas ou três vezes por semana (4)
		Diariamente (5)
		Duas ou três vezes por dia (6)
28	Você faria grandes sacrifícios para satisfazer uma vontade incontrolável de comer?	( ) ( )
		SIM NÃO
29	Se você comer demais, sente-se muito culpado(a) por isso?	( ) ( )
		SIM NÃO
30	Você, de vez em quando, come escondido?	( ) ( )
		SIM NÃO
31	Você consideraria seus hábitos alimentares normais?	( ) ( )
		SIM NÃO
32	Você se consideraria uma pessoa que come em exagero e não consegue parar?	( ) ( )
		SIM NÃO
33	Seu peso aumenta ou diminui mais que 2kg em uma semana?	( ) ( )
		SIM NÃO

ANEXO J - INVENTÁRIO DE DEPRESSÃO INFANTIL (CDI)

01	**Eu fico triste de vez em quando**	**Eu fico triste muitas vezes**	**Eu estou sempre triste**
02	**Nada vai dar certo para mim**	**Eu não tenho certeza se as coisas darão certo para mim**	**Para mim tudo se resolverá bem**
03	**Eu faço bem a maioria das coisas**	**Eu faço errado a maioria das coisas**	**Eu faço tudo errado**
04	**Eu me divirto com muitas coisas**	**Eu me divirto com algumas coisas**	**Nada é divertido para mim**
05	**Eu sou sempre mau (má)**	**Eu sou mau (má) com frequência**	**Eu sou mau (má) de vez em quando**
06	**De vez em quando eu penso que coisas ruins vão me acontecer**	**Eu temo que coisas ruins me aconteçam**	**Eu tenho certeza que coisas ruins me acontecerão**
07	**Eu me odeio**	**Eu não gosto muito de mim**	**Eu gosto de mim mesmo**
08	**Tudo de mau que acontece é pór minha culpa**	**Muitas coisas ruins que acontecem são minha culpa**	**Normalmente eu não me sinto culpado pelas coisas ruins que acontecem**
09	**Eu não penso em me matar**	**Eu penso em me matar, mas não o faria**	**Eu quero me matar**
10	**Eu sinto vontade de chorar diariamente**	**Eu sinto vontade de chorar frequentemente**	**Eu sinto vontade de chorar esporadicamente**
11	**Eu me sinto sempre entediado**	**Eu me sinto entediado frequentemente**	**Eu me sinto entediado esporadicamente**
12	**Eu gosto de estar com pessoas**	**Frequentemente eu não gosto de estar com pessoas**	**Eu não gosto de estar com pessoas**
13	**Eu não consigo tomar decisões**	**É difícil para mim tomar decisões**	**Eu tomo decisões facilmente**
14	**Eu tenho boa aparência**	**Minha aparência tem alguns aspectos negativos**	**Eu sou feio**

15	**Eu tenho que me obrigar a fazer os deveres de casa**	**Com frequência eu tenho de ser pressionado para fazer os deveres de casa**	**Fazer os deveres de casa não é um grande problema para mim**
16	**Eu tenho sempre dificuldade para dormir à noite**	**Eu tenho dificuldade para dormir à noite frequentemente**	**Eu durmo bem à noite**
17	**Eu me canso de vez em quando**	**Eu me canso frequentemente**	**Eu estou sempre cansado**
18	**Quase sempre eu não tenho vontade de comer**	**Alguns dias eu não tenho vontade de comer**	**Eu como muito bem**
19	**Eu não temo sentir dor**	**Eu temo sentir dor com frequência**	**Eu estou sempre temeroso de sentir dor**
20	**Eu não me sinto sozinho**	**Eu me sinto sozinho com frequência**	**Eu sempre me sinto sozinho**
21	**Eu nunca me divirto na escola**	**Eu me divirto na escola de vez em quando**	**Eu me divirto na escola frequentemente**
22	**Eu tenho muitos amigos**	**Eu tenho muitos amigos, mas gostaria de ter mais**	**Eu não tenho muitos amigos**
23	**Meus trabalhos de escola são bons**	**Meus trabalhos de escola não são tão bons quanto eram antes**	**Eu tenho me saído mal em matérias que costumava ser bom**
24	**Meu nível nunca é tão bom quanto o das outras crianças**	**Meu nível pode ser tão bom quanto o das outras crianças se eu quiser**	**Meu nível é tão bom quanto o das outras crianças**
25	**Ninguém gosta de mim realmente**	**Eu não tenho certeza se alguém me ama**	**Eu tenho certeza que sou amado por alguém**
26	**Eu sempre faço o que mandam**	**Eu faço o que mandam com frequência**	**Eu nunca faço o que mandam**
27	**Eu me comunico bem com as pessoas**	**Eu me envolvo em brigas com frequência**	**Eu estou sempre me envolvendo em brigas**

ANEXO K - Carta de anuência da Gerência Rregional de Educação (GRE) Norte

SECRETARIA DE EDUCAÇÃO GOVERNO DE Pernambuco

GRE Recife Norte
SECRETARIA DE EDUCAÇÃO DE PERNAMBUCO

CARTA DE ANUÊNCIA

Declaramos para os devidos fins que concordamos com a realização da pesquisa intitulada " Disfunção temporomandibular em adolescentes com sintomas de transtornos alimentares associada à comorbidade de sintomas depressivos." De autoria de **JOÃO MARCÍLIO COELHO NETTO LINS AROUCHA** e dos professores Dr. EVERTON BOTELHO SOUGEY e Dr. MARCELO MORAES VALENÇA, seja desenvolvido nas escolas jurisdicionadas a esta Gerência Regional de Ensino, em conformidade com o que estabelece a resolução CNS nº 196/96 em todas as fases sem implicar qualquer despesa para a instituição onde será realizada.

Recife, 14 de fevereiro de 2011.

Angela de Moraes Silva
Unidade de Desenvolvimento de Ensino
GRE Recife Norte

Angela de Moraes Silva
Matrícula Nº 270841-4
Chefe Unidade Desenvolvimento de Ensino - UDE

GERÊNCIA REGIONAL DE EDUCAÇÃO RECIFE NORTE
Unidade de Desenvolvimento do Ensino
Rua Coelho Leite, 80 – Santo Amaro – Recife – PE – CEP 50100-140
FONES: (081) 3181.2608 / 3181.2609 / 3181.2610 FAX (081) 3181.2617

ANEXO L - Carta de anuência da Gerência Rregional de Educação (GRE) Sul

SECRETARIA DE EDUCAÇÃO GOVERNO DE Pernambuco
GRE RECIFE SUL

CARTA DE ANUÊNCIA

Declaro para os devidos fins que concordamos com a realização da pesquisa intitulada "Disfunção temporomandibular em adolescentes com sintomas de transtornos alimentares associada à comorbidade de sintomas depressivos." de autoria de ***JOÃO MARCÍLIO COELHO NETTO LINS AROUCHA*** e dos professores Dr. EVERTON BOTELHO SOUGEY e Dr. MARCELO MORAES VALENÇA, seja desenvolvido nas escolas jurisdiscionadas a esta Gerência Regional de Ensino, em conformidade com o que estabelece a resolução CNS n° 196/96 em todas as fases sem implicar qualquer despesa para a instituição onde será realizada.

Recife, 07 de fevereiro de 2010

Marta Maria de Lira
Gestora da GRE Recife Sul

Marta Maria de Lira
GRE Recife Sul
Chefe Unid. Gestão de Rede
Mat. 184408-4

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