

UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL
CURSO DE ODONTOLOGIA

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QUALIDADE DE VIDA DO RESPIRADOR BUCAL:
UMA REVISÃO SISTEMÁTICA

Porto Alegre

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UMA REVISÃO SISTEMÁTICA

Trabalho de Conclusão de Curso apresentado ao Curso de Graduação em Odontologia da Faculdade de Odontologia da Universidade Federal do Rio Grande do Sul, como requisito parcial para obtenção do título de Cirurgiã-Dentista.

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Primeiramente, gostaria de mencionar o encaminhamento de Deus em toda essa jornada, durante os cinco anos de graduação.

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Aos meus amigos e familiares que sempre tiveram o interesse sobre meus estudos.

“O temor do Senhor é o princípio do conhecimento.”

Provérbios 1:7

RESUMO

SANTOS, Karoline da Silva. **Qualidade de vida no respirador bucal:** uma revisão sistemática. 2016. 29 f. Trabalho de Conclusão de Curso (Graduação em Odontologia) – Faculdade de Odontologia, Universidade Federal do Rio Grande do Sul, Porto Alegre, 2016.

Objetivo: Esta revisão tem por objetivo verificar se a respiração bucal tem influência na qualidade de vida dos indivíduos. Métodos: Foi realizada uma busca nas bases de dados: Scielo, PubMed, Bireme (LILACS, BBO, Medline) e Web of Science incluindo estudos de língua inglesa, portuguesa e espanhola e realizados em humanos. Foram excluídos os estudos do tipo: relato ou série de casos, revisões de literatura e revisões sistemáticas. Resultados: Foram encontrados 2.209 títulos inicialmente e a partir deles foram selecionados 11 resumos que se relacionavam com o assunto tratado. Ao final da análise dos textos apenas 4 artigos compuseram a pesquisa e foram classificados de acordo com sua qualidade de estudo. Os artigos foram classificados de acordo com a escala Newcastle-Ottawa, sendo uma adaptação para estudos transversais. Diferentes formas de avaliar a Qualidade de Vida foram encontradas entre os estudos incluídos, como OHIP-49, CPQ, Short form-36 e um questionário desenvolvido por pesquisadores. Os estudos geralmente apontam uma possível influência negativa que a respiração bucal exerce na qualidade de vida dos indivíduos, entretanto eles falham na comprovação do fato. Foi identificada uma ausência significativa de evidências, relacionadas ao tema específico, entre os estudos selecionados. Por meio dessa revisão realizada não encontramos uma influência negativa nos indivíduos que participaram dos estudos analisados. Portanto, mais estudos são necessários para uma melhor análise da intensidade do possível impacto na qualidade de vida dos indivíduos e também uma melhor compreensão do assunto.

Palavras-chave: Respiração bucal. Qualidade de vida. Respiração.

ABSTRACT

SANTOS, Karoline da Silva. **Qualidade de vida do respirador bucal:** uma revisão sistemática. 2016. 29 f. Trabalho de Conclusão de Curso (Graduação em Odontologia) – Faculdade de Odontologia, Universidade Federal do Rio Grande do Sul, Porto Alegre, 2016.

Abstract: This review aimed to determine whether or not mouth breathing affects individuals quality of life. A search of databases was performed using Scielo, PubMed, Web of Science and Bireme (LILACS, BBO, Medline) and including studies in English, Spanish and Portuguese. Prisma's recommendation was followed in order to select articles in which two reviewers extracted data and compared results. Initially, 2209 articles were found. Applying the inclusion, exclusion criteria and further analysis, only 4 remaining articles were considered suitable for inclusion in this research. Articles were classified according to the Newcastle-Ottawa scale which was an adapted version for cross-sectional studies. Different ways to assess Quality of Life were found among the included studies, such as OHIP-49, CPQ, Short form-36 and a questionnaire developed by researchers. The studies generally confirmed that mouth breathing has a negative influence on individuals quality of life, nevertheless they fail to prove this influence. Significant lack of evidence, related to the specific subject, was identified among the selected studies. Through the analysis performed, we did not find this negative influence in the individuals who participated in the analyzed studies. Therefore, more studies are needed for a better analysis of the intensity of the impact on the individuals quality of life and also a better understanding of this subject.

Keywords: Breathing. Mouth breathing. Quality of life.

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1 INTRODUÇÃO

A respiração, como uma função vital do ser humano, exerce uma direta influência sobre a manutenção da organização de todo o sistema estomatognático, músculos, dentes e ossos. (FERLA et al., 2008). De acordo com Piva et al. (2014), um indivíduo em repouso tem o padrão de respiração predominantemente nasal, tendo como características o selamento labial e o ar sendo inalado e exalado pelo nariz. Este tipo de respiração é o ideal para manter a estabilidade do sistema estomatognático.

A expressão “respiração bucal” é utilizada para conceituar indivíduos que substituem o padrão respiratório nasal pela respiração predominantemente bucal ou mista. O termo é aplicado quando esse padrão de respiração se faz presente por mais de seis meses. (PIVA et al., 2014; POPOASK et al., 2012)

Popoask et al. (2012) também investiga a etiologia da respiração bucal e constata que está relacionado com vários fatores, tais como a hipertrofia de adenoide, tonsilas palatinas e conchas nasais, desvio de septo (se houver obstrução nasal), rinite alérgica, deformidades nasais e faciais, e, mais raramente, corpos estranhos.

É consensual em bases de dados que, quando o padrão respiratório ocorre de forma inapropriada, tendo como consequência a respiração bucal de suplência, podem ser observados inúmeras alterações no organismo. (FERLA et al., 2008)

Menezes et al. (2011) mencionam as alterações mais importantes como consequência da respiração bucal, são elas: craniofaciais e dentárias, dos órgãos fonoarticulatórios, corporais, comportamentais e das funções orais. Foram citadas também características mais específicas da área odontológica, como: olheiras, olhar vago, lábio superior curto e incompetente, lábios ressecados, vedamento labial inadequado, hipotonia, hipofunção dos músculos elevadores da mandíbula, má oclusão, além de desequilíbrio funcional da deglutição, sucção e fonação. O conjunto de alterações caracterizadas pela respiração bucal, tanto mecânica das vias aéreas superiores quanto facial, é conceituado por diversos pesquisadores como a “Síndrome do Respirador Oral”. (NEGAE et al., 2013)

Tendo por base estudos epidemiológicos, foi observado que a respiração bucal pode ser considerada um problema de saúde pública. Prejuízos respiratórios são observados entre 10% a 25% da população, tendo consequência na qualidade de vida dos indivíduos. (NAGAE et al., 2013)

Inicialmente a expressão “qualidade de vida” era associada com a melhoria das condições de vida, especialmente ligada à aquisição de bens materiais. Posteriormente, entretanto, o termo foi associado com o estado psicológico, físico e social, além dos aspectos econômicos. Portanto, a qualidade de vida relacionada à saúde é um termo contemporâneo e frequentemente usado em meios científicos. (SEIDL, 2004)

A definição contemporânea do termo relaciona os aspectos de saúde física e mental de um indivíduo, assim como, o grau de sua independência, e sua relação na sociedade e com a natureza. Em uma sucinta explicação, pode ser caracterizada como a satisfação pessoal em relação à própria vida. Embora a World Health Organization (1948) a defina como o bem estar físico, psicológico e social e não meramente a falta de doença, ainda não há uma definição universalmente aceita para esse termo. (AKRANAVICIUTE; REZEVICIUS, 2007; SUSNIENE; JURKAUSKAS, 2009; PEREIRA; TEIXEIRA, 2012) Fica claro que o conceito sobre a qualidade de vida é muito amplo e inclui aspectos objetivos e subjetivos da vida. (MONTEIRO et al., 2010)

Existem variadas formas de avaliar a qualidade de vida. A forma mais comum de analisá-la é através de questionário, sendo que diversos foram criados e validados como instrumentos legítimos de avaliação.

Alguns autores acreditam que a respiração bucal pode ter um impacto negativo na qualidade de vida, não apenas na respiração, mas também em aspectos funcionais e comportamentais. Concluem que não há dúvidas sobre os sérios prejuízos que a respiração bucal tem sobre a qualidade de vida dos indivíduos. (MILANESI et al., 2014; POPOASK et al., 2012; CAMPAHA; FREIRE; FONTES, 2008) Há, entretanto, outros cientistas que provam que há pouca evidência para suportar a teoria de que a respiração bucal tenha uma influência negativa na qualidade de vida dos indivíduos. (NEIVA; KIRKWOOD; GODINHO, 2009; CESAR; SILVA; BALDRIGUI, 2016)

O presente estudo tem por objetivo avaliar se a respiração bucal tem influência na qualidade de vida dos indivíduos. Para isso, foi realizado um levantamento na literatura, pesquisando nas diferentes bases de dados para esclarecimento sobre esse assunto.

2 ARTIGO CIENTÍFICO

SYSTEMATIC REVIEW

ORTHODONTICS

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QUALITY OF LIFE OF MOUTH BREATHING PATIENTS: A SYSTEMATIC REVIEW

Abstract: This review aimed to determine whether or not mouth breathing affects patient quality of life. A search of databases was performed using Scielo, PubMed, Web of Science and Bireme (Lilacs, BBO, Medline) and including studies in English, Spanish and Portuguese. Prisma's recommendation was followed in order to select articles in which two reviewers extracted data and compared results. Initially, 2209 articles were found. Applying the inclusion, exclusion criteria and further analysis, only 4 remaining articles were considered suitable for inclusion in this research. Articles were classified according to the Newcastle-Ottawa scale which was an adapted version for cross-sectional studies. Different ways to assess Quality of Life were found among the included studies, such as OHIP-49, CPQ, Short form-36 and a questionnaire developed by researchers. The studies generally confirmed that mouth breathing has a negative influence on individuals quality of life, nevertheless they fail to prove this influence. Significant lack of evidence, related to the specific subject, was identified among the selected studies. Through the analysis performed, we did not find this negative influence in the individuals who participated in the analyzed studies. Therefore, more studies are needed for a better analysis of the intensity of the impact on the individuals quality of life and also a better understanding of this subject.

Keywords:

Breathing, Mouth breathing and Quality of life

INTRODUCTION

Breathing, as a vital function of the human body, has a direct influence on the maintenance and the organization of the entire stomatognathic system, muscles, teeth and bones. The predominant breathing pattern of an individual in rest position is nasal breathing, where the lips are sealed and air is exhaled and inhaled through the nose. This type of breathing is ideal to maintain the stability of the stomatognathic system^{1,2}.

The term "mouth breathing" is used to describe individuals that replace the normal nasal breathing pattern with predominantly oral, or mixed pattern of breathing. The term is applied when the breathing pattern is observed for more than six months^{2,3}.

The etiology of mouth breathing can be related to several factors, such as hypertrophy of the adenoids, palatine tonsils and nasal turbinates, deviated septum (if any nasal obstruction is present), allergic rhinitis, nasal and facial deformities, and more rarely, foreign bodies³. There appears to be consensus in databases that when an individual's respiratory pattern is altered, resulting in a mouth breathing pattern, numerous changes can be observed in the body¹.

There are significant physiological changes that may occur as a result of mouth breathing. Alteration of Craniofacial structures, jaws and alignment of the teeth, changes speech organs, as well as physical, behavioral and oral functions can all be observed. There are some other physiological changes, described in the dental literature, that can be associated with mouth breathing such as; vacant eyes, dark circles under the eyes, chapped and dry mouth, oral ulcers, inadequate lip seal, hypotonic lip, mandibular elevator muscle dysfunction, malocclusion, and disorders of swallowing, sucking and speech.^{4, 5} The set of alterations caused by mouth breathing are also described as "mouth breathing syndrome" by a number of researchers⁴.

Based on epidemiological studies, it was observed that mouth breathing may well be considered a public health issue. Experiences with some kind of respiratory impairment are observed between 10% to 25% of the population which is believed to have a consequence on an individual's quality of life⁶.

Initially the term "Quality of Life" was associated with improvements in living standards, mainly linked to acquire material goods. Later, however, the term was used in relation to psychological, physical and social aspects, in addition to those economic factors. Therefore, Health-related quality of life is a contemporary term that it is often used in the scientific fields⁷.

The contemporary definition relates the physical and mental health aspects, as well as the degree of independency, relationships in society and with nature. It can be summarized as the satisfaction of an individual with his or her own life. Although the World Health Organization (W.H.O.) defines it as physical, physiological and social well-being, and not merely to the absence of disease, there is still no universally accepted definition of what is termed “Quality of Life”^{8,9,10,11}. It is clear, therefore, that the concept of quality of life is a very comprehensive subject and includes objective and subjective aspects¹².

There are several methods to evaluate the quality of life. The usual way to assess it is using a questionnaire which there is countless examples of it that have been created and validated as legitimate quality of life assessment tools.^{13, 14, 15}

Some researchers believe that Mouth Breathing Syndrome can have a negative impact on quality of life and not only has a negative role in respiration, but also has behavioral and functional consequences. They conclude that there is no doubt that mouth breathing causes serious damage to the patient’s quality of life^{3,16,17}. Other scientists, however, feel that there is little evidence to support the theory that mouth breathing has a negative impact on the quality of life of patients^{18,19}.

This study aims to assess whether mouth breathing affects the quality of life of individuals or if that does apply any impact. To achieve this aim, a search of the literature, using different databases, was conducted.

METHODS

A systematic review was conducted and its hypothesis was that mouth breathing does have a negative influence on the quality of life of both adults and children with this breathing pattern. All stages of the selection process and analysis of the texts were based on PRISMA's recommendations²⁰.

The following question was researched in the literature: Does mouth breathing influence the quality of life?

In order to select the studies included in this review, a search was conducted in the following databases: PubMed, Medline, Scielo, Web of Science and Bireme, using the following terms individually or in combination: "Respiração bucal", "Qualidade de vida" and "Respiração" in Portuguese. Also "Mouth breathing", "Quality of life" and "Breathing" in

English and "buccal Respiration", "Calidad life" and "Respiration" in Spanish. The descriptors are listed in the Medical Subject Headings (Mesh) and the Descriptors in Health Sciences (DeCS).

This systematic review only included studies relating to the quality of life of mouth breathers performed on humans and published in either English, Spanish or Portuguese.

Case reports, case series, literature reviews and systematic reviews were all excluded from this research.

Two examiners independently selected the studies identified in the search of the databases according to the inclusion/exclusion criteria. Following the inclusion and exclusion criteria, each examiner analyzed the various studies and compared their findings. Any disagreement between the examiners was resolved by consensus. As a result, the articles selected by both examiners were independently evaluated in two phases. To begin with the first phase, examiners verified the abstract of each study and selected the ones that were suitable for this review. Following this, in the second phase of analysis, the articles from this remaining group were analyzed in full text according PRISMA's recommendation. The articles included in this last phase were classified in relation to its Author and year of publication, Country of origin, Type of Study, Sample size, Age of the individuals in the study, Methodology of Assessment of quality of life and Outcomes to quality of life.

In order to assess the quality of the selected studies was used the Newcastle-Ottawa scale adapted for cross-sectional studies. This tool is based on three categories: group selection (two items), comparability between groups (one item), and outcome or exposure assessment (two items). The maximum score was seven points and also points to the highest methodological quality. The selected articles were according to the Newcastle-Ottawa guidance.²¹

RESULTS

As result of the search, it was initially identified 2209 titles. Eleven of them were selected as they were related to the subject. Following to the first phase, with the analysis of their abstracts, 5 more articles were excluded as they had no direct relation with the subject and / or for meeting the exclusion factors.

Only six articles were included in the study group as they met all the inclusion criteria previously outlined.

Moving to the second phase, after methodological analysis of the six remaining articles a further two articles were discarded as they intended to investigate mouth breathing patterns and correlations to factors unrelated to the subject of this review. As a result, they did not present methodologies that were acceptable to the proposed objectives of this study as outlined posteriorly in this study. In summary, four articles were included in the final study group and were subjected to further evaluation and assessment. The selection process is outlined in figure 1.

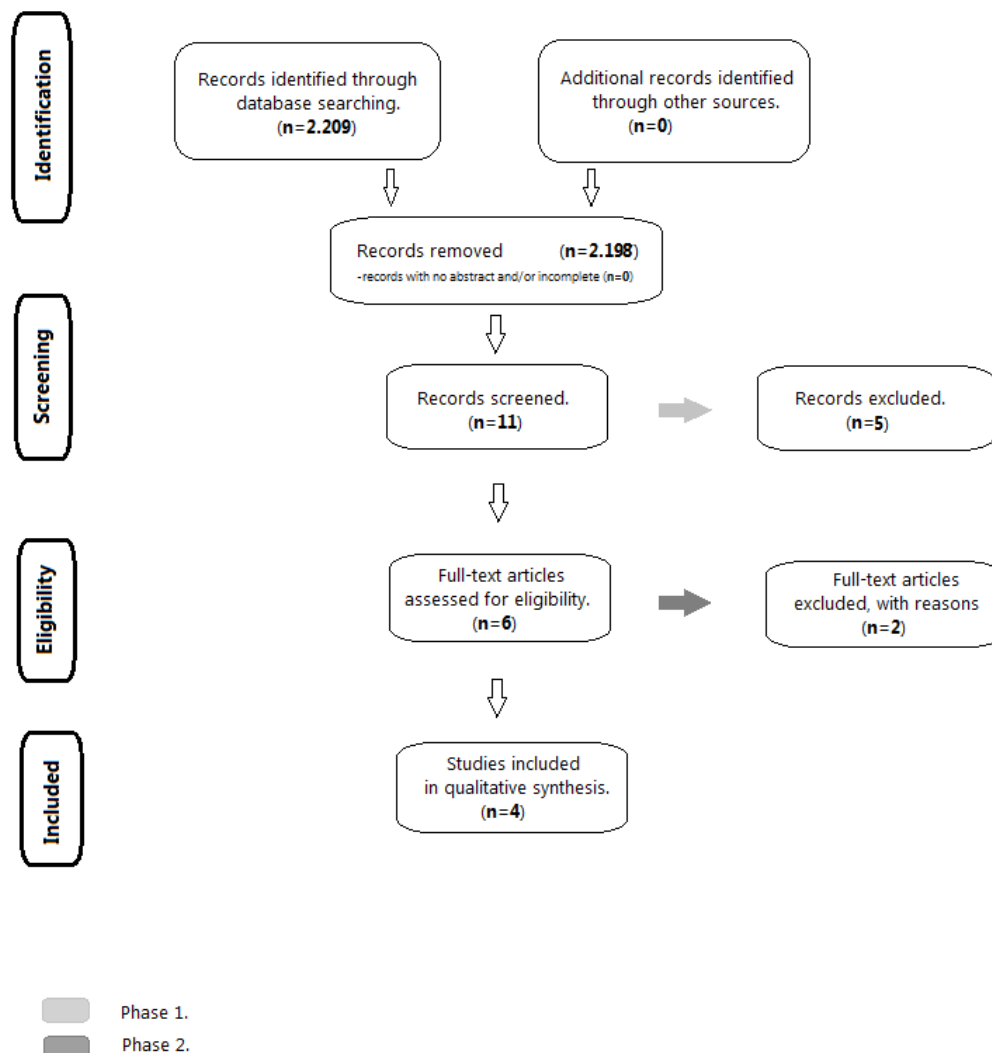


Figure 1. Flow diagram of the selection process in accordance to the PRISMA guidelines.

The initial search resulted in 11 articles which were related to the subject area of this literature review. Table 1 describes how seven articles failed to meet the inclusion criteria, as mentioned previously.

Table 1. Excluded articles and the criteria of their removal.

Authors (year)	Exclusion criteria
PHASE 1	
Abreu RR et al. ²² (2009).	It is not related to patients' quality of life.
Piva F et al. ² (2014).	It is not related to patients' quality of life.
Cunha RA et al. ²³ (2014)	It is not related to patients' quality of life.
Rosen CL et al. ²⁴ (2002).	It was related to sleep-disorders, unrelated to mouth breathing.
Ungkanont K, Areyasathidmon S. ²⁵ (2006).	It was related to sleep-disorders, unrelated to mouth breathing.
PHASE 2	
Locker D, Jokovic A, Tompson.B. ²⁶ (2005).	It compared a group with dental caries with a group with mouth breathing and it evaluated the quality of life between these two groups of patients.
Negae MH et al. ⁵ (2013).	It compared mouth breathing with oronasal breathing.

The four remaining studies were from Brazil and each research used different methodologies to evaluate patient quality of life, as described in Table 2^{3, 16, 27, 28}.

Table 2. Selected articles and their characteristics.

Author and year of publication	Country	Type of study	Sample Size	Age	Methodology of assessment of quality of life	Outcomes related to quality of life
Strine PJSA et al. ²⁷ (2011)	Brazil	Transversal	30	18-25 years	OHIP-49	Negative influence on the ORHQoL questionnaire.
Leme MS, Barbosa TI, Gavião MBD. ²⁸ (2013)	Brazil	Transversal	328	8-14 years	CPQ	Negative influence on the ORHQoL questionnaire.
Popoaski C et al. ³ (2012)	Brazil	Transversal	71	4-17 years	Specific questionnaire made by the authors	Negative impact, but more studies are needed.
Milanese JM et al. ¹⁶ (2014)	Brazil	Transversal.	24	18-30 years	Short Form-36 (SF-36)	Slight impact on quality of life during the adult phase.

Each study used different questionnaires to evaluate quality of life. Strine PJS et al. (2011)²⁷ aimed to analyze quality oral life with OHIP-49 (Oral Health Impact profile). Leme MS, Barbosa TI, Gavião MBD. (2013)²⁸ assessed the impact of oral health on quality of life (OHQoL) with the use of a questionnaire called CPQ (Children perceptions Questionnaires), divided into two groups CPQ (8-10) and CPQ (11-14) according to the children's ages. Popoaski C et al. (2012)³ created a questionnaire specific to their study. Milanese JM et al. (2014)¹⁶ assessed quality of life using the Short Form-36 questionnaire (SF-36).

Strine PJS et al. (2011)²⁷ assessed orofacial dysfunction, which includes mouth breathing, and concluded that it can influence the quality of oral life. For Leme MS, Barbosa TI, Gavião MBD. (2013)²⁸ oral habits can negatively impact the quality of life. Furthermore, orofacial dysfunction is associated with a worse quality of life in individuals with oral habits. As in the previous study, breathing is a criterion for evaluating the orofacial dysfunction, and it can therefore be considered as an important factor in orofacial dysfunction, and consequently, in quality of life. Popoaski C et al. (2012)³ indicate that mouth breathing syndrome appears to be related to have a negative impact on the quality of life of patients. However, they noted that more studies are needed to validate their questionnaire as an instrument to assess the quality of life of patients. Milanese JM et al. (2014)¹⁶ reveals that mouth breathing has consequences on respiratory function, even in adulthood, with a decrease in respiratory muscle strength and functional exercise capacity. However, this study found that mouth breathing had little implication on individual quality of life.

The methodological quality of the selected articles was assessed according to the Table 3. The outcome was that two of the articles had 3 points and the other half of articles had 4 points using the scale up to 7 points.

Table 3. Quality assessment of the cross-sectional studies based on the Newcastle-Ottawa scale.

STUDY	SELECTION*	COMPARABILITY**	OUTCOME***	SCORE****			
	Diagnosis of mouth breathing ¹	Representativeness and selection of individuals with Mouth breathing ²	Assessment of quality of life ³	Control of confounders ⁴	Statistics ⁵	A clear Impact on quality of life ⁶	
Strine PJSA et al. ²⁶ (2011)			◇◇		◇		3
Leme MS, Barbosa TI, Gavião MBD. ²⁷ (2013)			◇◇		◇		3
Popoaski C et al. ³ (2012)	◇	◇	◇	◇			4
Milanese JM et al. ¹⁶ (2014)	◇	◇	◇◇				4

*A maximum of 2 points; ** a maximum of 1 points for each item; *** a maximum of 1 point for each item. **** a maximum of 7 points. ◇ 1 point.

¹ a) Clinical examination with independent validation ◇, b) without clinical examination or based on self reports, c) no description.

²a) Individuals with mouth breathing in a defined catchment area or community, random sample, sample calculation ◇, b) not satisfying requirements in part (a) fully, c) not stated.

³ a) Validated measurement tool. ◇◇ b) Non-validated measurement tool, but the tool is available or described◇ c) No description of the measurement tool.

⁴ a) Adjustment for confounders ◇, b) no description related to the adjustment analysis for confounding variables.

⁵ a) The statistical test used to analyze the data is clearly described and appropriate. ◇ b) The statistical test is not appropriate, not described or incomplete.

⁶ a) There was a significant outcome relating the subjects. ◇ b) There was an doubt or a limited outcome related to the subject.

DISCUSSION

In a review, the subject of mouth breathing was raised and claimed that breathing is directly related to a negative impact on quality of life. The authors cited many examples of negative characteristics that affect the lives of individuals with this type of breathing.¹⁷ Another study as example, it conceptualize and characterize the mouth breathers and explain the consequences that this type of breathing causes. However, it does not clarify if the patient's quality of life was assessed or how was performed its evaluation.²³ These are some examples of the many articles investigating this subject. Therefore, the present systematic review came to prove that studies with the same purpose as this review exist in a limited number.

Many types of questionnaires were created to assess Quality of life, such as WHO10L-100, developed by the World Health Organization (WHO), as well as Short Form-36 (SF-36) and Child Perceptions Questionnaire (CPQ). CPQ is a specific measurement tool to evaluate quality of life in children.^{13, 14, 15} Quality of life is a wide subject and also its assessment. This study observed that there is much variation amongst authors on the assessment of quality of life. In the four articles selected for this review, four different methods were used to evaluate the quality of life in individuals. Therefore, the comparison among them became difficult.

There is an association between breathing with the quality of life and therefore it is essential of paying careful attention to it.²⁹ Aside from the subject discussed in this research, quality of life is related to many other topics and scientific fields. Consequently, it is important not only in this review, but also in other areas, to have a legitimate assessment tool for evaluating quality of life.

The final group of articles submitted for analysis of the data collection was based on four articles. Two of them presented the topic of orofacial dysfunction, being evaluated by NOT-S (Nordic Orofacial Test-screening). As one of the NOT-S criteria was the breathing pattern, these articles showed that orofacial dysfunction is related to a poor quality of life. However, it is unclear whether it is specifically the mouth breathing that causes a worsening in quality of life or whether or not other criteria were considered in NOT-S evaluation that can be contributing factors. From these two articles no conclusion can be drawn on whether or not mouth breathing has a specific impact on the quality of life for individuals, as they were not evaluated specifically^{27, 28}.

One of the scientific studies divided individuals into two groups, namely mouth breathers and nasal breathers. Each group was submitted to a specific questionnaire, designed by the authors, to assess their quality of life. It is clear that the findings of this study are not fully reliable, as this questionnaire has not been tested and / or applied previously in order to prove its efficiency. However, the authors are comfortable saying that there was a significant difference in the results between groups and this should stimulate researchers to test the questionnaire, validating it as a tool to assess quality of life ³.

Finally, the last study analyzes if the breathing pattern had influence on the quality of life of adults, who were mouth breathers when they were children. To evaluate the quality of life the researchers used the Short Form-36 (SF-36) questionnaire. The results showed that mouth breathing during the childhood had a slight negative impact on the quality of life in the adult stage in this research. Nevertheless, the objective of this review was to determine if the quality of life is negatively impacted by the time the individual has the mouth breathing pattern. The results are therefore inconclusive because of this. However, if the adult phase was slightly impacted because of the mouth breathing pattern, it is possible to predict that quality of life during childhood was more severely impacted. Unfortunately, this was not proven¹⁶.

Although the keywords in the database search identified a wide range of related studies, the fulfillment of this systematic review has shown that there is a clear shortage in literature concerning this issue and further studies are needed with more consistent methodologies and specific results about the subject.

CONCLUSION

Results of cross-sectional studies point to a possible negative impact of oral breathing on a quality of life of individuals. However, through the analysis performed, we did not find this negative influence in the individuals who participated in the analyzed studies. Therefore, more studies are needed for a better analysis of the intensity of the impact on the individuals quality of life and also a better understanding of this subject.

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3 CONCLUSÃO

Resultados de estudos transversais geralmente apontam para a existência de um possível impacto negativo que a respiração bucal exerce sobre a qualidade de vida de indivíduos. Entretanto, por meio dessa revisão realizada não encontramos essa influência negativa nos indivíduos que participaram dos estudos analisados. Portanto, mais estudos são necessários para uma melhor análise da intensidade do possível impacto na qualidade de vida dos indivíduos e também uma melhor compreensão do assunto.

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ANEXO A - REQUISITOS DE FORMATAÇÃO DA REVISTA PARA A REALIZAÇÃO DO ARTIGO



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The manuscript text should be written in English and provided in a digital file compatible with “Microsoft Word” (in DOC, DOCX, or RTF format).

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Tables: These must be numbered and cited consecutively in the main text, in Arabic numerals. Tables must be submitted separately from the text in DOC, DOCX, or RTF format.

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Conclusions: These must be presented in a concise manner and be strictly based on the results obtained in the research. Detailing of results, including numerical values, etc., must not be repeated.

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While summarizing the results of original studies, quantitative or qualitative,

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