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MOUTHWASHES: COSMETICS OR HEALTH CARE? A CRITIQUE OF IRRESPONSIBLE USE

ENXAGUANTES BUCAIS: COSMÉTICOS OU CUIDADOS DE SAÚDE? UMA CRÍTICA AO USO IRRESPONSÁVEL

ENJUAGUES BUCALES: ¿COSMÉTICOS O PRODUCTOS SANITARIOS? UNA CRÍTICA AL USO IRRESPONSABLE

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ABSTRACT

Objective: The objective of this narrative literature review article is to discuss mouthwashes, whether they serve only to provide fresh breath or go beyond that, and mainly to address their use and usefulness. Methodology: To acquire the maximum amount of rich and scientifically based information to compose this review, searches were made in the following databases: BVS/BIREME; PROSPERO; Web of Science; Scielo; The Cochrane Library; PUBMED Central and Google Academy. Results: During the searches, it was observed that mouthwashes are

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commonly used cosmetically, where people buy these rinses with the aim of complementing or supplying oral hygiene, so they do not seek the opinion of a dentist before starting to use this product. In addition, research has shown that mouthwashes have well-defined purposes, being recommended for patients with the aim of controlling oral health problems, such as: Aid in the treatment of oral candidiasis; Treatment of halitosis; Control of bacterial plaque and gingivitis; Prevention of cavities and control of dentin sensitivity. Conclusion: Mouthwashes should not be used by just anyone. The patient must undergo an evaluation with the dentist so that the professional can see if the patient can and needs to use a certain mouthwash, when this product does have great effectiveness in combating and controlling various health problems, but should only be used if there is an existing need.

Keywords: Mouthwashes. Oral Hygiene. Dental And Oral Hygiene Products. Oral Health.

RESUMO

Objetivo: O objetivo deste artigo de revisão narrativa de literatura é discutir sobre os enxaguantes bucais, se eles servem apenas para proporcionar hálito fresco ou vão além disso, e principalmente abordar seu uso e utilidade. Metodologia: Para adquirir o máximo de informações ricas e embasadas cientificamente para compor esta revisão, foram realizadas buscas nas seguintes bases de dados: BVS/BIREME; PROSPERO; Web of Science; Scielo; The Cochrane Library; PUBMED Central e Google Academy. Resultados: Durante as buscas, observou-se que os enxaguantes bucais são comumente utilizados cosmeticamente, onde as pessoas compram esses enxaguantes com o objetivo de complementar ou suprir a higiene bucal, por isso não buscam a opinião de um dentista antes de iniciar o uso deste produto. Além disso, pesquisas demonstraram que os enxaguantes bucais têm finalidades bem definidas, sendo recomendados para pacientes com o objetivo de controlar problemas de saúde bucal, como: Auxílio no tratamento de candidiase oral; Tratamento de halitose; Controle de placa bacteriana e gengivite; Prevenção de cáries e controle da sensibilidade dentinária. Conclusão: Enxaguantes bucais não devem ser usados por qualquer pessoa. O paciente deve passar por uma avaliação com o dentista para que o profissional veja se o paciente pode e precisa usar determinado enxaguante bucal, quando este produto tem grande eficácia no combate e controle de diversos problemas de saúde, mas só deve ser usado se houver necessidade.

Palavras-chave: Enxaguantes Bucais. Higiene Oral. Produtos De Higiene Bucal E Dentária. Saúde bucal.

RESUMEN

Objetivo: El objetivo de este artículo de revisión narrativa de la literatura es discutir los enjuagues bucales, ya sea que sirvan sólo para proporcionar aliento fresco o vayan más allá de eso, y principalmente abordar su uso y utilidad. Metodología: Para adquirir la máxima cantidad de información rica y con base científica para componer esta revisión, se realizaron búsquedas en las siguientes bases de datos: BVS/BIREME; PROSPERO; Web of Science; Scielo; The Cochrane Library; PUBMED Central y Google Academy. Resultados: Durante las búsquedas, se observó que los enjuagues bucales son comúnmente utilizados cosméticamente, donde las personas compran estos enjuagues con el objetivo de complementar o suplir la higiene bucal, por lo que no buscan la opinión de un dentista antes de comenzar a utilizar este producto. Además, la investigación ha demostrado que los enjuagues bucales tienen propósitos bien definidos, siendo

recomendados para pacientes con el objetivo de controlar problemas de salud bucal, tales como: Auxiliar en el tratamiento de la candidiasis bucal; Tratamiento de la halitosis; Control de la placa bacteriana y gingivitis; Prevención de caries y control de la sensibilidad dentinaria. Conclusión: Los enjuagues bucales no deben ser utilizados por cualquier persona, el paciente debe someterse a una evaluación con el odontólogo para que el profesional pueda ver si el paciente puede y necesita utilizar un determinado enjuague bucal, cuando este producto sí tiene gran efectividad para combatir y controlar diversos problemas de salud, pero sólo debe utilizarse si existe una necesidad existente.

Palabras clave: Enjuagues Bucales. Higiene Bucal. Productos De Higiene Bucal Y Dental. Salud bucal.

INTRODUCTION

The human body as a whole is colonized by a wide variety of bacteria, which live in constant symbiosis and balance with the host. The oral cavity is no different, as it is a place composed of many bacteria, mainly due to its moisture and food intake characteristics, which allows the establishment of bacteria, in addition to the fact that the structure of the teeth promotes even more, due to its hard tissue that does not flake off, serving as a breeding ground for microorganisms, which can end up triggering oral health problems such as periodontal diseases and cavities if the oral cavity is in a situation of imbalance between the microorganisms and the host, triggering oral dysbiosis (Lindhe et al., 2010).

An imbalance in the oral microbiota is a problem that can trigger other problems. Caries is a multifactorial dental health condition that depends on the host, diet, time, and microorganism. It is commonly seen in people who do not perform oral hygiene correctly and continuously, leaving the oral environment rich in food debris and bacterial plaque, which will serve as food for bacteria to carry out their deposition, producing acids that will demineralize the dentin surface, which can trigger cariogenic processes if oral balance is not established. Periodontal diseases, on the other hand, are diseases that are related to the body's immune responses due to the unbalanced presence of biofilm, which will cause direct inflammatory responses in the affected periodontium (Filho et al., 2021; Lindhe et al., 2010). Thus, aiming to control bacterial plaque and oral microorganisms to achieve eubiosis, more and more tools and products have been developed and are being developed to help humans perform this control, such as more effective and

revolutionary toothpastes, brushes and dental floss, with greater potential for controlling and removing bacterial plaque and food debris, in order to improve and benefit oral health (Guimarães Sampaio Trajano Dos Santos et al., 2025; Guimarães Sampaio Trajano Dos Santos et al., 2024).

Thus, in order to maintain oral health, it is necessary for each person to perform mechanical control three times a day, first using dental floss and then a toothbrush together with toothpaste, serving as a form of prevention against these oral health problems and other oral pathologies. However, in certain cases, the use of these three components is not sufficient, and it is necessary to use other products that complement mechanical removal, thus, the so-called "Mouthwashes" were created, rinses composed of chemical agents that complement oral hygiene (Gunsolley et al., 2010). Mouthwashes may or may not contain active medicinal ingredients in their compositions, each of which has a specific function and purpose, such as: anti-stain, anti-cavity, sensitivity, anti-plaque, tooth and gum protection, among other functionalities (Newman & Carranza 2007).

Thus, the objective of this narrative literature review article is to discuss mouthwashes, whether they serve only to provide fresh breath or go beyond that, and mainly to address their use and usefulness.

METHODOLOGY

This article is a narrative literature review, so it was necessary to use an existing and previously published work that explains how to create an article of this type, its structure, approach, what information should be included in this study, the method of searching for articles to compose this review and what are the characteristics of this type of article. Thus, the article by Rother (2007) was chosen to serve as a guide during the creation and development of this work, where his work addresses systematic and narrative reviews, their main differences and individual characteristics, which was very useful during the course of this article. In addition, in order to acquire the maximum amount of rich and scientifically based information to compose this review, searches were made in the following databases: BVS/BIREME; PROSPERO; Web of Science; Scielo; The Cochrane Library; PUBMED Central and Google Academy. Health descriptors were also used, aiming to obtain only content related to the topic addressed in the work, being the following descriptors: Mouthwashes; Oral Hygiene; Dental and Oral Hygiene Products; Oral Health.

RESULTS

Classification of Mouthwashes: Functions and Indications

Mouthwashes are classified into two main categories: cosmetic and therapeutic. Each type serves distinct purposes based on the active ingredients and their intended uses for oral health.

Cosmetic Mouthwashes

Cosmetic mouthwashes primarily serve to mask bad breath and provide a temporary feeling of freshness and cleanliness. They do not contain medicinal ingredients to treat oral health problems but are designed to create an immediate, pleasant sensation in the mouth. The main function of cosmetic mouthwashes is to provide short-term breath freshening and oral deodorization (Gunsolley, 2010). Many of these mouthwashes contain flavors such as mint or citrus and are widely available over the counter. They may also have mild antiseptic properties, but these are not strong enough to manage or prevent oral health issues such as gingivitis or periodontal disease (Turner, 2008).

- **Common Ingredients**: Essential oils, menthol, eucalyptus oil, and various aromatic compounds (Gunsolley, 2010).
- **Effectiveness**: While cosmetic mouthwashes can mask halitosis, they do not address its root causes, such as microbial imbalances or dental disease. Their use is generally safe when consumed in moderation, but excessive use of alcohol-based mouthwashes may lead to dry mouth (xerostomia), particularly in individuals with a predisposition to this condition (Filho et al., 2021).
- **Indications**: Short-term breath control and providing a feeling of freshness.

Therapeutic Mouthwashes

In contrast, therapeutic mouthwashes contain active medicinal ingredients designed to treat and prevent specific oral health conditions. These mouthwashes are formulated to address underlying causes of oral problems such as bacterial plaque, gingivitis, periodontal disease, and

halitosis. They often contain antibacterial agents and other medicinal components that aim to prevent or reduce bacterial growth in the mouth (Gunsolley, 2006).

Chlorhexidine: One of the most common active ingredients in therapeutic mouthwashes, chlorhexidine is used for its strong antimicrobial properties. It is particularly effective in managing periodontal disease, post-surgical care, and oral infections. Chlorhexidine mouthwashes are also recommended for short-term use due to the risk of side effects like tooth discoloration and altered taste with prolonged use (Lindhe et al., 2011).

Cetylpyridinium Chloride: This is a broad-spectrum antimicrobial agent found in some therapeutic mouthwashes, effective for treating gingivitis and halitosis. Studies suggest that cetylpyridinium chloride can significantly reduce the bacterial load in the mouth, thus contributing to plaque control and gum health (Gunsolley, 2010).

Essential Oils: Therapeutic mouthwashes may also contain essential oils like eucalyptol, thymol, and menthol, which possess antibacterial and anti-inflammatory properties. These ingredients help reduce gingivitis and bacterial plaque, while also providing a natural alternative to chlorhexidine (Figuero et al., 2011).

- **Common Ingredients**: Chlorhexidine, cetylpyridinium chloride, essential oils, fluoride, and stannous fluoride (Lindhe et al., 2011).
- **Effectiveness**: Therapeutic mouthwashes, when used as recommended, can control bacterial plaque, prevent gingivitis, and help manage periodontal disease. Their effectiveness is particularly evident in individuals with oral infections or those recovering from dental procedures. Regular use of fluoride-containing mouthwashes has also been linked to cavity prevention, especially for individuals at high risk for caries (Gunsolley, 2006).
- **Indications**: Treatment and prevention of gingivitis, halitosis, periodontal disease, oral infections, cavity prevention, and post-surgical care.

Fluoride Mouthwashes

Fluoride mouthwashes are commonly used for cavity prevention. These mouthwashes contain sodium fluoride or stannous fluoride, both of which help remineralize enamel, making it more resistant to decay. Fluoride mouthwashes are particularly effective for people who are at high risk of dental caries or have sensitive teeth. They are also widely used as a preventive

measure for children and adolescents. The fluoride helps to strengthen tooth enamel, which is critical in preventing demineralization and the development of cavities (Banerjee & Watson, 2016).

- **Common Ingredients**: Sodium fluoride, stannous fluoride.
- **Effectiveness**: Fluoride mouthwashes are highly effective in preventing cavities and strengthening tooth enamel. They can significantly reduce the risk of tooth decay when used regularly as part of an oral care routine.
- **Indications**: Prevention of dental caries and tooth enamel remineralization.

Mouthwashes for Sensitive Teeth

Mouthwashes designed for sensitive teeth often contain potassium nitrate or strontium chloride, which help reduce tooth sensitivity by blocking the tubules in the dentin. These mouthwashes can be useful for individuals who experience discomfort or pain when consuming hot, cold, or acidic foods and beverages (de Oliveira & Lima, 2024).

- **Common Ingredients**: Potassium nitrate, strontium chloride.
- **Effectiveness**: These mouthwashes provide relief from the discomfort caused by dentin hypersensitivity and can improve the quality of life for individuals with sensitive teeth (Heymann & Swift, 2018).
- **Indications**: Relief from dentin hypersensitivity and oral discomfort.

DISCUSSION

Mouthwashes were designed and created with the aim of complementing the manual oral hygiene procedure, enhancing the cleaning of oral structures, for people who have certain oral conditions such as gingivitis and periodontal disease, or for post-operative situations in certain procedures and surgeries performed in the oral cavity, as it is an environment rich in bacteria. Thus, mouthwash was initially developed as a type of medicine, with specific objectives and functionalities. However, because it is a product that was created in a flavored way, with fruit flavors, such as strawberry, grape or with different types of mint flavors, which is the most common, combined with a feeling of freshness and a feeling of cleanliness when using the product, these mouthwashes became attractive to consumers, causing more and more people to

seek to acquire and use these products with the aim of having this "good" and "refreshing" taste in the mouth, in addition to the feeling of cleanliness that the product brings, mainly because the vast majority of products present on their labels information that reports that the product promotes cleaning against most or even all oral bacteria.

This set of factors has led to mouthwashes that were created as medicines being used cosmetically, where people buy them without even worrying about knowing the benefits, harms, functionality and whether they really need to use that product, trivializing the use of mouthwashes, which can have a serious and major impact on oral health depending on the patient's condition and the way it is used, for example: alcohol-based mouthwashes can trigger gum irritation in certain users, mouthwash solutions with an acidic pH combined with other factors promote dental erosion, certain mouthwashes when used for a long time can lead to adverse effects, such as tooth pigmentation, changes in taste and end up helping to increase the formation of dental calculus in certain cases.

Therefore, mouthwashes can be harmful when consumed as a self-medication and should only be consumed when recommended by a dentist, in order to avoid these problems and others. However, mouthwashes do have their positive points when used as recommended by a dentist. Scientific evidence shows that they are highly effective in managing halitosis, controlling bacterial plaque, treating periodontal diseases and gingivitis. They are products that contribute to gum health because they are highly effective against gum inflammation, in certain post-operative and post-procedural situations and among other types of oral health problems. They are a great ally of dentists in various treatments due to their great effectiveness and functionality. However, they should always be used when recommended by a dentist.

CONCLUSION

Mouthwashes play an important role in maintaining oral health when used correctly and under professional guidance. Although many people use them to obtain fresh breath and a feeling of cleanliness, their improper use can result in adverse effects, such as gum irritation, changes in taste and even the promotion of dental calculus accumulation.

Therefore, it is essential that mouthwashes are prescribed by a dentist, considering the individual needs of each patient. Scientific literature shows that these products are effective in controlling bacterial plaque, preventing periodontal diseases and treating specific conditions,

such as halitosis and dentin sensitivity. However, their indiscriminate use can cause more harm than good.

Therefore, awareness of the real function of mouthwashes is essential to avoid their irresponsible use. Adopting an adequate oral hygiene routine, including mechanical brushing and flossing, should always be the basis for preventing oral diseases, with mouthwashes acting as a complement only when necessary.

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