

MIGUEL BERNARDO PEREIRA BARBOSA DE MAGALHÃES

**EVALUATION OF THE STRATEGIES USED IN THE PREVENTION OF  
PERIODONTAL DISEASES IN SCHOOL HEALTH IN PORTUGAL**

UNIVERSIDADE FERNANDO PESSOA  
FACULDADE DE CIÊNCIAS DA SAÚDE

PORTO, 2018



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*“Study presented to Fernando Pessoa University  
as part of the requirements to obtain the  
Master’s Degree in Dental Medicine.”*

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(Miguel Bernardo Pereira Barbosa de Magalhães)

Porto, 2018

## **ABSTRACT**

**Objective:** To evaluate the technical and scientific knowledge of healthcare providers, responsible for the National School Health Programme, in order to prevent plaque-induced gingivitis and periodontal disease.

**Methods:** A questionnaire with 16 multiple-choice questions was developed and sent to all professionals responsible for the school health in the Centre Region of Portugal. The bibliographic search was performed on Pubmed platform.

**Results:** Among a total of 41 professionals responsible for the school health area of the Centre Region of Portugal, 36 responses were obtained (88%). In this region, it is seen that the promotion of oral health is mainly done by nurses. Additionally, this study discloses that there is a lack of preparation of some professionals, especially doctors and nurses, in the prevention of plaque-induced gingivitis and periodontal disease. This lack of preparation is justified by a misunderstanding about the main etiological factor of both diseases, as well as their correlation. There are still some flaws in the knowledge of brushing techniques, recommendation of mouthwash solutions and there is less recommendation of interdental brushes. The preparation of parents, educators and children for the detection of symptoms of gingival inflammation also represent an important gap.

**Conclusion:** The study reports a need of a greater diversity and reinforcement of the healthcare professionals in school health teams and an improvement of the co-operation between the different professionals (doctors, nurses, dentists and oral hygienists). It is necessary to educate these multidisciplinary teams about the aetiology of the diseases, consequences of their progression, associated systemic diseases and appropriate oral hygiene techniques. It is fundamental to instil the culture of prevention in oral health, enabling these professionals to instruct teachers, parents and children to acquire knowledge on the prevention and detection of gingivitis and periodontitis.

**KEYWORDS:** “*Gingivitis*”; “*Periodontal disease*”; “*Oral health*”; “*Prevention*”; “*National School Health Programme*”; “*Brushing technique*”.

## RESUMO

**Objetivo:** Avaliar os conhecimentos técnico-científicos que profissionais de saúde, responsáveis pelo Programa Nacional de Saúde Escolar, possuem para prevenir a gengivite e a doença periodontal.

**Métodos:** Foi criado e enviado um questionário com 16 perguntas de escolha múltipla para todos os profissionais responsáveis pela saúde escolar na Região Centro de Portugal. A pesquisa bibliográfica foi realizada na plataforma Pubmed.

**Resultados:** De um total de 41 profissionais responsáveis pela área da Saúde Escolar da Região Centro de Portugal, obtiveram-se 36 respostas (88%). Nesta região, constatou-se que a promoção da saúde oral escolar é realizada maioritariamente por enfermeiros. Este estudo revelou também uma fraca preparação de alguns profissionais, principalmente médicos e enfermeiros, na prevenção da gengivite induzida por placa bacteriana e da doença periodontal. Esta má preparação deve-se, nomeadamente, ao desconhecimento do principal fator etiológico de ambas as doenças, bem como da sua correlação. Constatam-se ainda falhas ao nível das técnicas de escovagem, aconselhamento de soluções de bochecho e pouca recomendação de escovilhão interdentário. A preparação para a deteção dos sintomas de inflamação gengival dos pais, educadores e crianças é também uma lacuna existente.

**Conclusão:** O estudo realizado demonstra a necessidade de uma maior diversificação e reforço de profissionais que compõem as equipas da saúde escolar e de uma melhoria da intercolaboração entre os diversos profissionais (médicos, enfermeiros, dentistas e higienistas orais). É necessário educar estas equipas multidisciplinares quanto à etiologia das doenças em estudo, consequências da sua progressão, doenças sistémicas associadas e técnicas de higiene oral apropriadas. É ainda fundamental incutir uma cultura de prevenção na área da saúde oral, capacitando estes profissionais para instruírem os professores, pais e crianças a adquirirem conhecimentos sobre prevenção de gengivite e periodontite.

**PALAVRAS-CHAVE:** “Gengivite”; “Doença periodontal”; “Saúde oral”; “Prevenção”; “Programa Nacional de Saúde Escolar”; “Técnicas de escovagem”.

*Sinto-me como se tivesse sido apenas um rapaz,  
a brincar à beira-mar e a divertir-me a apanhar  
um seixo mais polido aqui e uma concha mais bonita ali,  
enquanto o grande oceano da verdade  
permanece por descobrir  
diante de mim.*

*Isaac Newton*

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## I. INTRODUCTION

### 1. Gingivitis and Periodontal Disease

Periodontal disease is a prevalent health problem both in developed and developing countries and affects about 20-50% of the global population. Indeed, there is a high prevalence of the disease among adolescents, adults and older individuals turning it into a public health concern. Several risk factors such as smoking, poor oral hygiene, diabetes, medication, age, hereditary and stress are linked to the disease (Fowler, Breault and Cuenin, 2001)

Periodontal disease, also known as periodontitis, includes any inherited or acquired disorder of the tissues which are investing and supporting the teeth (gingiva, cementum, periodontal ligament, and alveolar bone) (Al-Ghutaimel *et al.*, 2014). The disease is highly prevalent, costly to treat and has considerable impacts on the society (Batchelor, 2014). The effects of periodontal disease observed in adults usually appear early in life (Pari *et al.*, 2014). Clinical symptoms of periodontal disease comprise gingival redness, swelling and/or recession and a reduced resistance of the periodontal tissues to probing (Lindhe, Hamp and Loe, 1975).

Periodontitis progresses from gingivitis, if left untreated, which is an inflammation process of the gingiva resulting from bacteria located in the gingival margin (Loe, 1965) without detectable loss of bone or clinical attachment (Califano, 2006). Epidemiologic studies indicate that different clinical appearances of gingivitis are nearly universal in children and adolescents (Califano, 2006; Pari *et al.*, 2014) and include: ulcerative, haemorrhagic, necrotizing and purulent (James M. Stephen, 2018).

Children and adolescents can present any of the several forms of periodontitis: aggressive periodontitis, chronic periodontitis and periodontitis as a manifestation of systemic diseases. Aggressive periodontitis is a more common form of the disease among children and adolescent (Armitage, 1974; Califano, 2006).

Periodontal disease has attracted interest among the scientific community since its relation with other important diseases such as cardiovascular disease, diabetes mellitus, preterm low birth weight and osteoporosis (Kim and Amar, 2006; Schenkein and Loos, 2013; Yu *et al.*, 2015).

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## 2. National School Health Programme (PNSE)

The integration of oral health in School Health Program is a project that potentiates an intervention in primary healthcare, not only by its role in health promotion focused in biological condition, but also in the contextualization of children with school.

Schools were described by World Health Organization as “the ideal location for development of educative health programmes, as they integrate the society, i.e. students’ relatives, teachers and the community” (World Health Organization. Research to improve implementation and effectiveness of school health programmes, 1996.).

The implementation of the School Health Nacional Programme (PNSE) in Portugal allows the development of activities in two fundamental axes: supervision, health protection and knowledge acquisition; technical skills; and health support (Direcção-Geral da Saúde and Divisão de Saúde Escolar, 2006). School health multidisciplinary teams comprised by public health doctors, dentists, nurses and oral hygienists develop activities and strategies to improve oral health behaviours, encouraging toothbrush since preschool to high school level; to instruct teachers, students and parents about the importance of oral hygiene, preventing oral diseases; and to enable children, parents and educators to identify symptoms of gingival inflammation and acquire knowledge to prevent periodontal diseases.

This study was developed in the Centre Region of Portugal which main aim was to evaluate the use of strategies and techniques by healthcare providers at schools in order to prevent and reduce the incidence of periodontal disease and gingivitis. This work is a continuation of a previous study - “Evaluation of the strategies and techniques used in the prevention and decrease of periodontal diseases by oral health care providers in schools” - by Alberto Rosmaninho Mações Torres.

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## II. MATERIALS AND METHODS

A questionnaire was developed with 16 multiple-choice questions and checkbox answers and sent by email to the School Health Programme coordinator of each sub-region. Then, the questionnaire was redirected to 41 health professionals distributed by 5 Health Centre Groups (Baixo Vouga, Dão-Lafões, Pinhal Litoral, Pinhal Interior Norte, Cova da Beira), including doctors, dentists, nurses and oral hygienists. Google Forms software was used to collect the results easily and to ensure confidentiality of the healthcare providers and a response rate of 88% was obtained. The bibliographic search for the introduction to this issue and discussion of our results was performed on Pubmed platform of articles written in the English language, strictly related to this topic, with no time limits and using the following key words: “*Gingivitis*”; “*Periodontal disease*”; “*Oral health*”; “*Prevention*”; “*National School Health Programme*”.

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### III. RESULTS

Among 41 professionals responsible for the school health area of the Centre Region of Portugal, 36 answers (88%) were obtained. In this region multidisciplinary teams of School Health are composed by public health doctors (14%) dentists (5%), nurses (64%) and oral hygienists (17%) (Attachment I, graph1) which are distributed for 5 Health Centre Groups (Baixo Vouga, Dão-Lafões, Pinhal Litoral, Pinhal Interior Norte, Cova da Beira). The majority of the healthcare providers recognize general body hygiene instructions and good eating habits during oral health promotion (Attachment I, graph 2 and 3) of most importance.

Regarding the diseases where health professionals feel more empowered to prevent (Attachment II, graph 4), decay and gingivitis were the oral diseases that these professionals feel more skilled to prevent (100%; 83,3% respectively), followed by periodontitis and oral candidiasis, with less than a half of the answers (41,7%; 38,9%). Finally, only 16,7% invest in the prevention of leukoplakia. According to Graph 5, oral hygienists showed to be more capable to prevent decay, gingivitis and periodontal disease. On the other hand, only 30% of the nurses feel empowered to prevent periodontal disease.

With respect to the brushing techniques, Bass Modified Technique (35%) is the most used technique, followed by Fones Technique (30%) and Stillman Modified Technique (24%) (Attachment III, graph 7).

Additionally, the number of daily tooth brushing recommended is 3 times (35%) a day and “always after meal” (51%) (Attachment III, graph 6). Moreover, the majority of the health professionals (66,7%) recommend dental brushing only with the intention of removing food waste; 30,6% consider it a way to remove plaque tooth-by-tooth and just 16,7% a way to remove the plaque according to the number of teeth the brush covers (Attachment III, graph 10). Furthermore, most of the professionals emphasize the importance of removing plaque from the gingival margin (86%); and 11% does not address this subject (Attachment III, graph 11).

In addition, most health providers warn parents about the fact that toothbrush must have a child’s size (89%) (Attachment III, graph 8). Soft toothbrush bristles are thought to be the most

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suitable for children (56%) and the medium hardness is recommended by 33% (Attachment III, graph 9).

All professionals promote interdental cleaning either by interdental brushes or dental floss, being dental floss, the main tool advised (92%) (Attachment IV, graph 13). Regarding mouthwash solutions, 47% recommend only fluoride solutions and 36% recommend both solutions ones depending on the child's need (Attachment V, graph 14).

Lastly, 92% of professionals consider bleeding gums to be abnormal (Attachment VI, graph15) and only 46% of this population advise parents and teachers to check the bleeding and the colour and shape of the children's gums (Attachment VI, graph 16). Among these professionals, who consider bleeding gums abnormal, 86% warn parents and teachers to this problem (Attachment VI, graph 17).

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### IV. DISCUSSION

According to the obtained results, most of the healthcare providers asked (83%) are capable of preventing gingivitis, however only less than a half were able to prevent periodontal disease. Periodontitis progresses from gingivitis if left untreated, therefore it would be expected to have similar prevention responses to both diseases as they have the same etiology. Oral hygienists showed to be more capable to prevent decay, gingivitis and periodontal disease. On the other hand, only 30% of the nurses feel empowered to prevent periodontitis, which is probably related to a lack of preparation to prevent the main oral diseases.

Regarding tooth brushing instructions, there is a great concern about removing food waste from all teeth (67%) in comparison with the removal of bacterial plaque (17%), which suggests that professionals do not recognize the plaque as an etiological factor of periodontal diseases. In fact, the continuous formation of microbial plaque is the main etiological factor in both gingivitis and periodontitis (Lindhe, 1975). Additionally, health professionals do not recognize that periodontal disease can develop locally, through the formation of an inflammatory infiltrate in periodontal pockets.

Despite the results described above, the vast majority (86%) of professionals, still give emphasis to the importance of removing the plaque at the gingival margin level.

Fones toothbrushing technique is advised (30%) which is based on a series of circular movements from the maxillary gingiva to the mandibular gingiva using moderate pressure on the head of the toothbrush. Back and forth movements are applied on the other dental surfaces (Kandelman, 1989; Van der Weijden et al, 2008). In addition, this technique is liked and easily understood and remembered by the children (Joybell, Krishnan and Suresh Kumar, 2015).

The modified Bass technique use toothbrush head in an oblique (45-degree angle) position, which allows the tips of a few bristle to be slightly inserted into the gingival sulcus while other brush the gingival margin, with a vibratory motion sweeping the bristles over the crown of the tooth, toward biting surface of the tooth (Kandelman, 1989; Van der Weijden et al, 2008). This technique is recommended (35%) although it is more efficient in removing the plaque at the



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gingival margin, where the plaque is mostly accumulated, thereby preventing periodontal lesions (Harnacke *et al.*, 2012). Healthcare providers should start teaching young children with simple techniques and then move to a more efficient technique such as Bass modified technique, which is more effective on the maintenance of periodontal health (Nassar *et al.*, 2013)

With reference to the tooth brushing there was agreement regarding the indication of toothbrushes with child size (89%) and to the use of soft bristle toothbrushes (56%).

Periodontitis and gingivitis lesions are predominantly observed in the interproximal or interdental sites, which are most frequently coated by plaque (Slot, Dörfer, & Van der Weijden, 2008). Dental floss for interdental cleaning is recommended (92%), but scientific evidence suggests that interdental brushes remove more efficiently dental plaque than dental floss or toothpicks (Slot, Dörfer and Van der Weijden, 2008). However, young individuals in whom the papillae fill out the interdental spaces, dental floss is the only tool able to reach this area. When the interdental papilla recedes, the space increases and the interdental brush can fit perfectly in this interdental space (Slot, Dörfer and Van der Weijden, 2008). For these reasons, healthcare providers should adapt these techniques according to the age and manual dexterity of the target population.

Within the mouthwash solutions recommend, sodium fluoride solution was more indicated for children (47%) and it is, indeed, a better solution due to its antimicrobial properties and remineralisation ability (Sundas and Rao, 2015). Chlorhexidine rinse is indicated only for particular clinical situations for short-term use, such as severe gingivitis, where mechanical plaque control cannot be used. Moreover, chlorhexidine is not preferred by children due to its bitter taste, extrinsic tooth staining and soft tissues burning,

Finally, the majority of the healthcare providers considered gum bleeding to be abnormal while teeth brushing (92%) and among these professionals, 86% alert parents and children for this issue. However, only 46% instruct parents to identify symptoms of gingival inflammation, such as gingival colour, shape and bleeding. Therefore, the answers obtained illustrate that health professionals are not fully clarified on the topic of oral health prevention, more specifically on

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gingivitis and periodontal disease prevention, since information is not cleared along with parents, teachers and children.

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### V. CONCLUSION

This study emphasizes that there is a lack of human resources, namely dentists and oral hygienists, at the level of the National School Health Program, which play a fundamental role in promoting oral health, since they are the most specialized professionals.

The National School Health Program covers mostly pre-school and primary school levels only sporadically covers third cycle and high school level if it is inserted in a class project. The lectures vary according to the availability of curricular classes and often overlap with the handover of the dentist check at the ages of 7, 10 and 13 years old. Additionally, there is a need to extend this program to the high school level so that there is a strengthening and an update of the previously acquired learnings in oral health.

It is crucial that the National School Health Program teams are reinforced with more oral health professionals, mainly with dentists and oral hygienists, so that prevention initiatives can encompass all levels of education and also allow the reinforcement of the learnings since childhood to the high school level. An effective plaque control can only be achieved in well and regularly motivated children and by well-motivated, responsible and skilful health providers (Axelsson & Lindhe, 1977).

According to the different answers obtained for the ability to prevent some health problems, it is possible to conclude that there is a lack of background and know-how with regard to the prevention and reduction of plaque-induced gingivitis and periodontal disease. Dentists and oral hygienists are, as expected, the most empowered studied group. Additionally, there is a possible lack of knowledge by nurses and doctors regarding the progression of gingivitis to periodontitis, as well as the association of bacterial plaque as the etiological factor of both diseases.

Brushing techniques should be more suitable for periodontal health, particularly the bass technique modified, when the child shows some manual dexterity and motivation.

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It is important to improve the clinical instructions during mouthwash and the awareness about fluorinated elixirs that can be used during brushing. Healthcare providers should be also alerted for the usage of chlorhexidine solutions only in acute situations, such as exacerbated gingivitis, in which manual brushing is not possible.

It is worthy to emphasize that these professionals need some previous preparation and should come together in order to learn about the etiology of the disease, the consequences of its progression and the appropriate oral hygiene techniques. It is also important to train nurses and doctors so that they can teach parents, teachers and children for gingivitis detection, such as checking the color, shape and bleeding of children's gums.

All in all, the obtained results from this study are according with the previous study made in the North Region of Portugal by Alberto Rosmaninho Mações Torres. Indeed, it is worthy to continue the assessment in the other Regions of Portugal (Lisboa e Vale do Tejo; Alentejo e Algarve) in order to draw more comprehensive and statistically significant conclusions. Additionally, some improvements in the National School Health Program should be done by getting together oral health professionals and also the guidelines created by the Health Ministry should be reviewed and refined. At this point, results from this study together with the previous one represents a reliable statistic tool to present to the superior entities to make enhancements in the prevention of gingivitis and periodontal disease.

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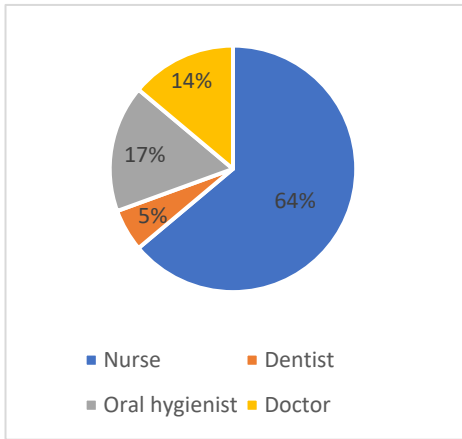
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Yu, Y. H. *et al.* (2015). Cardiovascular risks associated with incident and prevalent periodontal disease. *Journal of Clinical Periodontology*, 42(1), pp. 21–28.

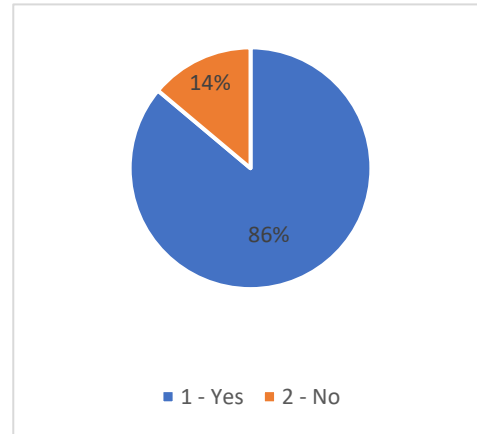
EVALUATION OF THE STRATEGIES USED IN THE PREVENTION OF PERIODONTAL DISEASES IN SCHOOL HEALTH IN PORTUGAL

VII. ATTACHMENTS

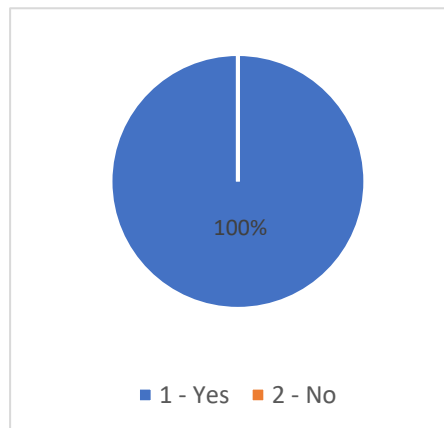
Attachment I: Health promotion



**Graph 1.** Health professionals making part of the study.



**Graph 2.** Do you consider it is important to include general body hygiene instructions when promoting good oral hygiene habits?

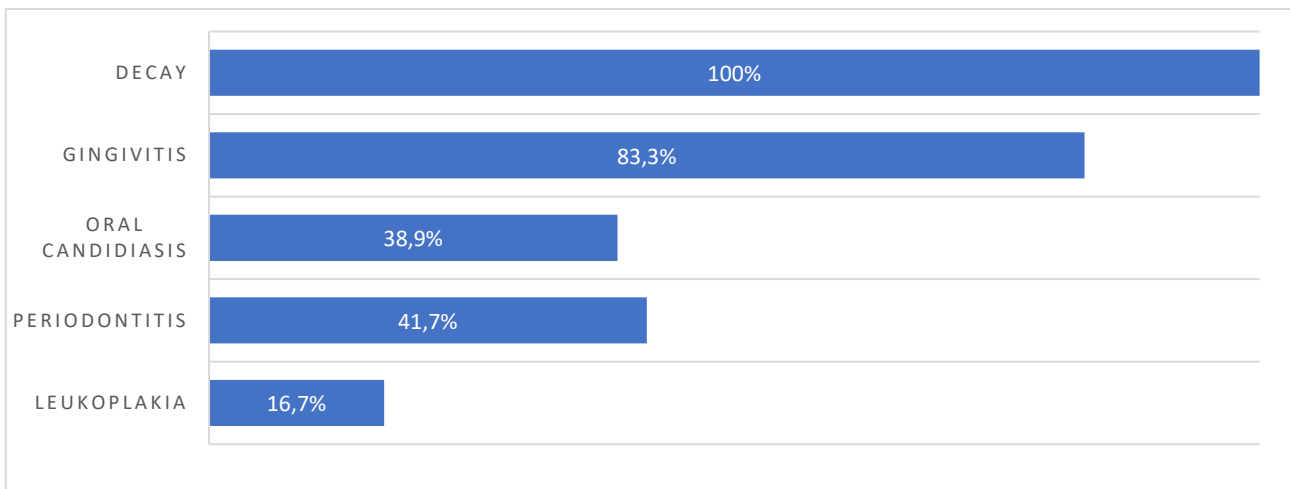


**Graph 3.** Do you include instruction for good eating habits during health promotion?

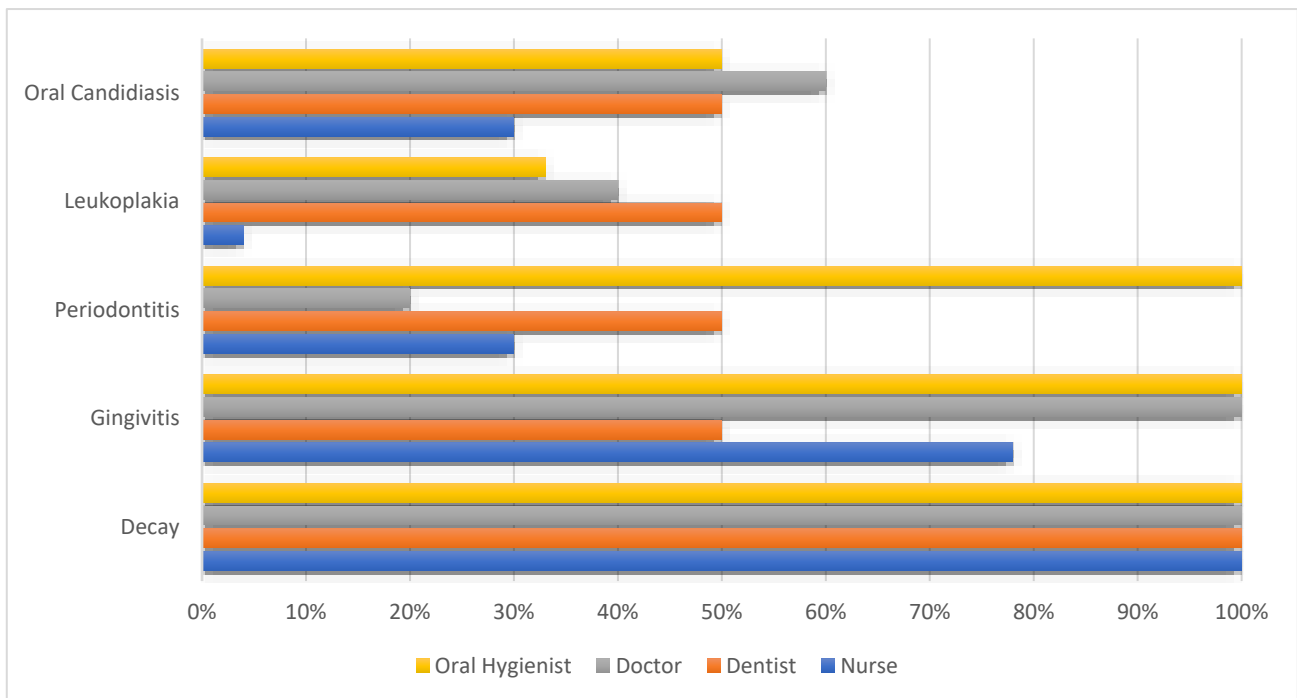


**EVALUATION OF THE STRATEGIES USED IN THE PREVENTION OF PERIODONTAL DISEASES IN SCHOOL HEALTH IN PORTUGAL**

**Attachment II: Oral Diseases Prevention**



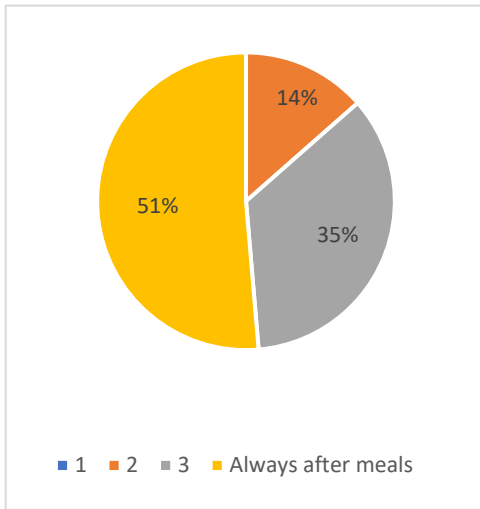
**Graph 4.** Which of the following oral diseases do you know and feel empowered to prevent?



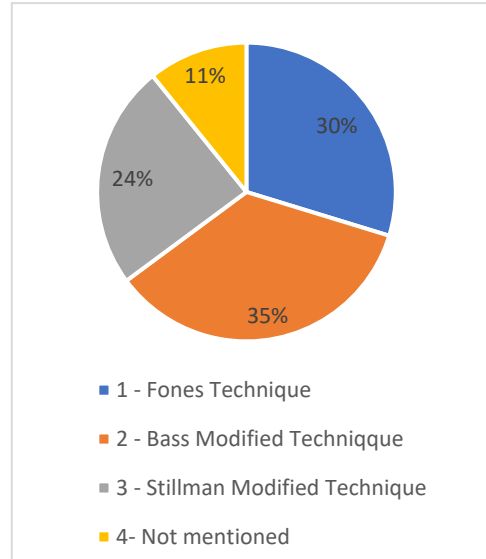
**Graph 5.** Percentage of answers obtained for each group of health professionals in relation to the prevention of the different oral diseases. Graphic was obtained from graph 4.

**EVALUATION OF THE STRATEGIES USED IN THE PREVENTION OF PERIODONTAL DISEASES IN SCHOOL HEALTH IN PORTUGAL**

**Attachment III: Tooth Brushing Instructions**



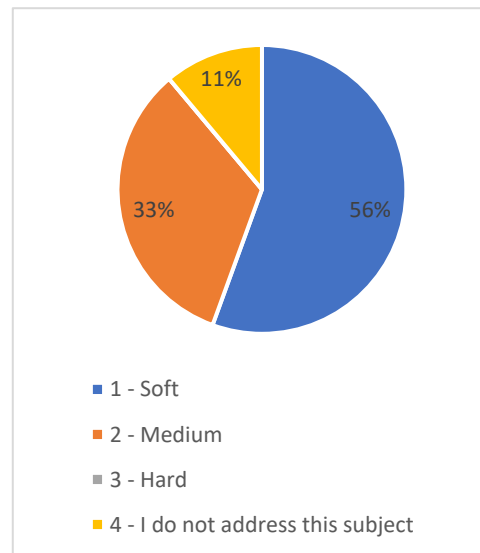
**Graph 6.** How many times a day do you recommend tooth brushing?



**Graph 7.** Which brushing technique do you teach at schools?

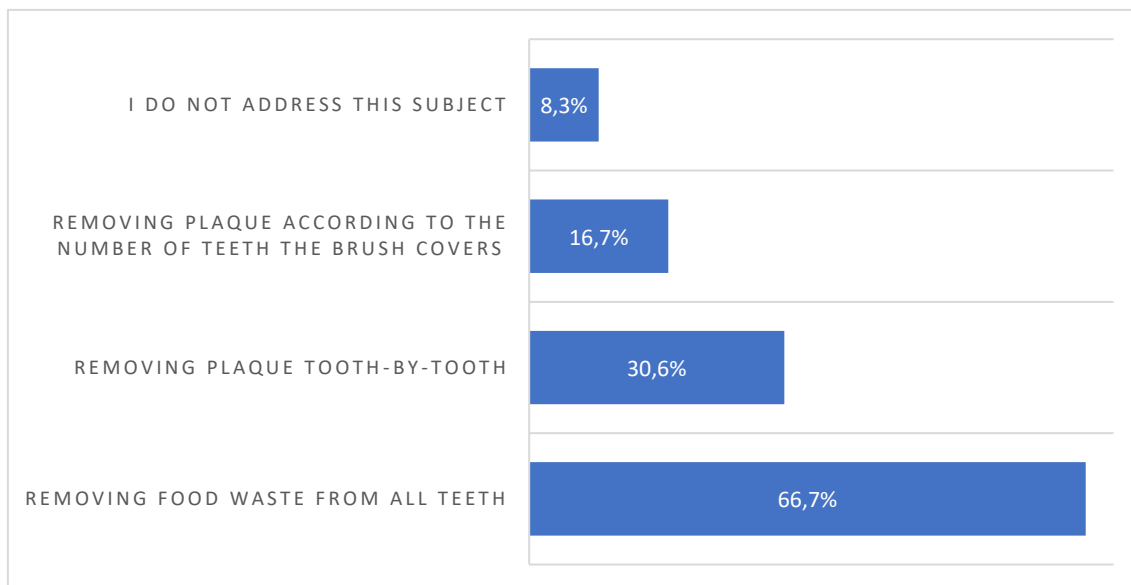


**Graph 8.** Do you warn parents and teachers that the toothbrush should have a child's size?

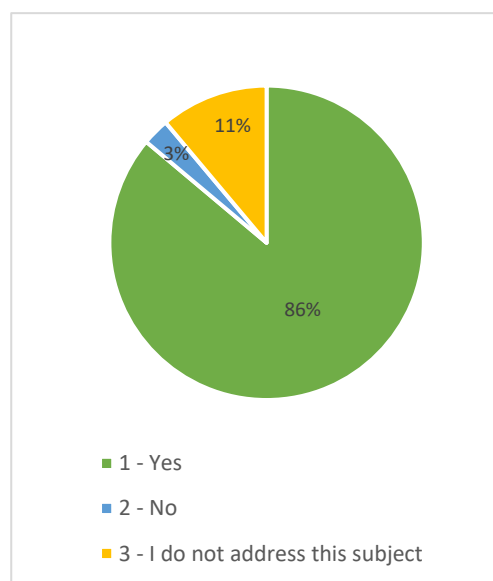


**Graph 9.** Which bristle hardness do you recommend for toothbrushes?

## EVALUATION OF THE STRATEGIES USED IN THE PREVENTION OF PERIODONTAL DISEASES IN SCHOOL HEALTH IN PORTUGAL



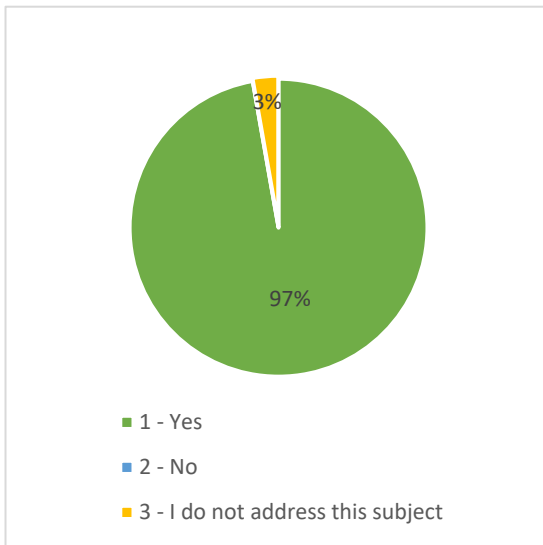
**Graph 10.** During brushing instructions what do you recommend?



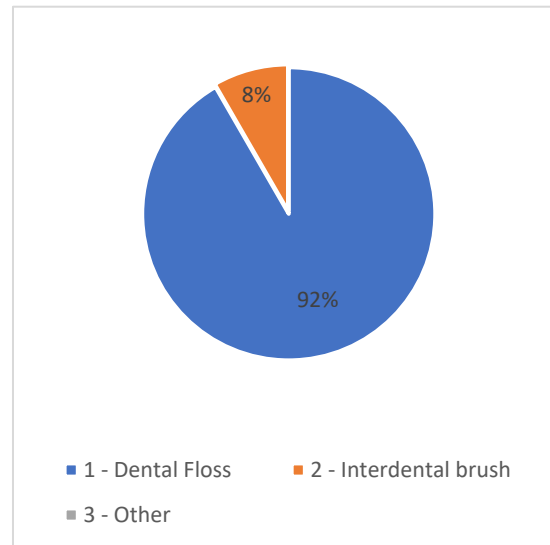
**Graph 11.** During the explanation of the toothbrushing technique, do you consider important to remove the plaque from gingival margin?

EVALUATION OF THE STRATEGIES USED IN THE PREVENTION OF PERIODONTAL DISEASES IN SCHOOL HEALTH IN PORTUGAL

Attachment IV: Interdental Cleaning

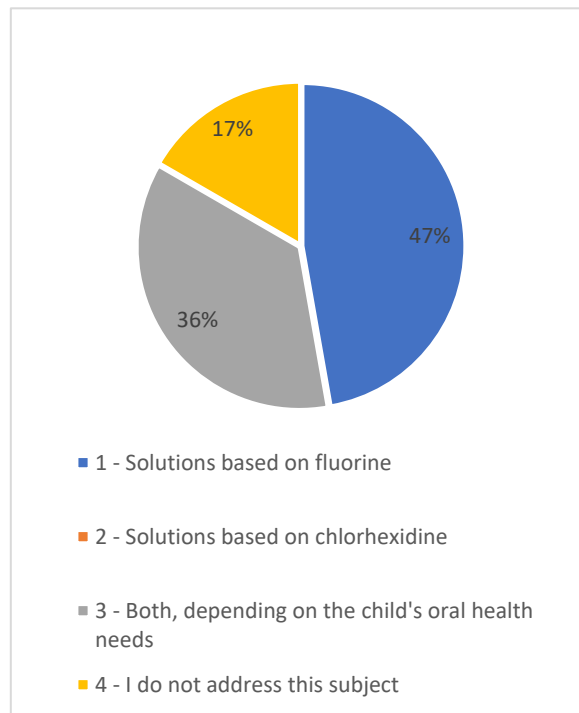


Graph 12. During oral hygiene instruction, do you recommend interdental cleaning?



Graph 13. What kind of tools do you indicate to execute interdental cleaning?

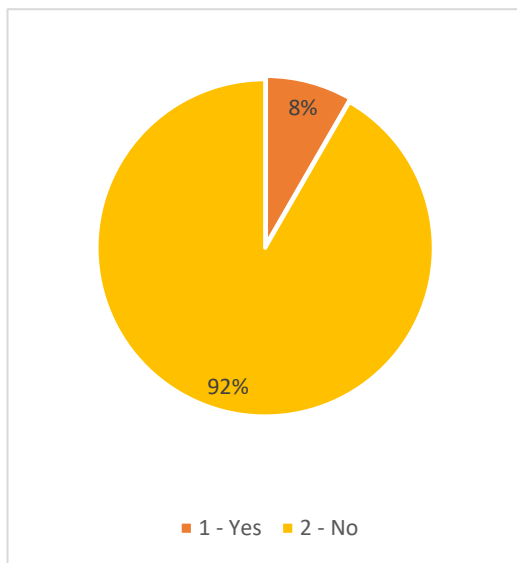
Attachment V: Mouthwash solutions



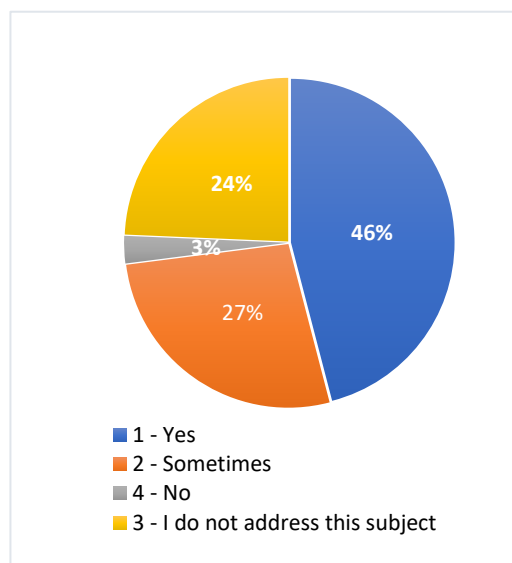
Graph 14. Which mouthwash solutions do you recommend?

EVALUATION OF THE STRATEGIES USED IN THE PREVENTION OF PERIODONTAL DISEASES IN SCHOOL HEALTH IN PORTUGAL

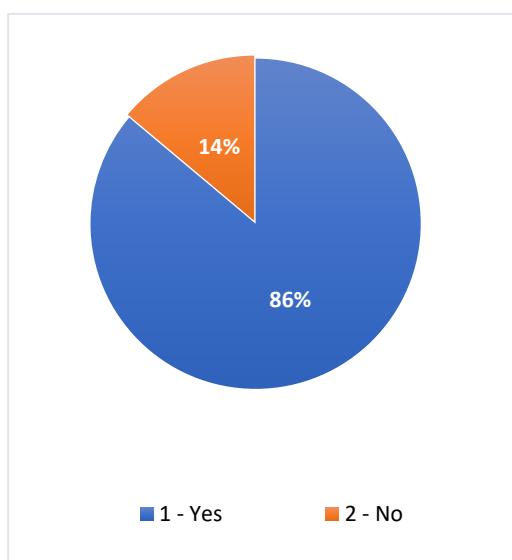
Attachment VI: Bleeding Gums



**Graph 15.** Do you consider bleeding gums to be normal when you brush your teeth?



**Graph 16.** Do you advise parents and teachers to check the colour, shape and bleeding of children's gums?



**Graph 17.** Do you warn teachers, parents and children so that they can understand that bleeding gums are not normal?

# EVALUATION OF THE STRATEGIES USED IN THE PREVENTION OF PERIODONTAL DISEASES IN SCHOOL HEALTH IN PORTUGAL

## Attachment VII: Questionnaire

23/02/2018 - Avaliação das estratégias e técnicas utilizadas na prevenção e diminuição de doenças periodontais por parte dos profissionais responsá...

### Avaliação das estratégias e técnicas utilizadas na prevenção e diminuição de doenças periodontais por parte dos profissionais responsáveis pela promoção de saúde oral nas escolas.

\*Obrigatório

#### Consentimento Informado

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Título do estudo: "Avaliação das estratégias e técnicas utilizadas na prevenção e diminuição de doenças periodontais por parte dos profissionais responsáveis pela promoção de saúde oral nas escolas."

Enquadramento: ACES da Região do Centro, Universidade Fernando Pessoa, Investigador: Miguel Magalhães Orientador: Hélder Oliveira

Explicação do estudo: Este estudo visa perceber que estratégias e técnicas de promoção de saúde oral estão a ser utilizadas nas escolas. O estudo basear-se-á num questionário de escolha múltipla.

Condições e financiamento: Este estudo mereceu o parecer da comissão de ética para a saúde da ARS Centro. Este estudo têm carácter voluntário, não existindo qualquer prejuízos caso negue a participação. Não existe qualquer custo monetário associado à participação no estudo.

Confidencialidade e anonimato Todos os dados obtidos são confidenciais e de uso exclusivo para o presente estudo. O questionário é realizado em anonimato, não existindo registo de dados de identificação. O questionário é enviado através de email, podendo ser realizado no local onde o participante pretenda.

Declaro ter lido e compreendido este documento, bem como as informações que me foram fornecidas. Foi-me garantida a possibilidade de, em qualquer altura, recusar participar neste estudo sem qualquer tipo de consequências. Desta forma, aceito participar neste estudo e permito a utilização dos dados que de forma voluntária forneço, confiando em que apenas serão utilizados para esta investigação e nas garantias de confidencialidade e anonimato que me são dadas pelo/a investigador/a.

1. **Consentimento informado \***

Marcar apenas uma oval.

- Aceito  
 Não Aceito

2. **Qual a sua Profissão? \***

Marcar apenas uma oval.

- Médico  
 Enfermeiro  
 Higienista Oral  
 Outra

## EVALUATION OF THE STRATEGIES USED IN THE PREVENTION OF PERIODONTAL DISEASES IN SCHOOL HEALTH IN PORTUGAL

23/02/2018 Avaliação das estratégias e técnicas utilizadas na prevenção e diminuição de doenças periodontais por parte dos profissionais responsáv...

3. **Considera importante incluir instruções gerais de higiene corporal quando promove bons hábitos de higiene oral? \***

Marcar apenas uma oval.

- Sim  
 Não

4. **Inclui a instrução para bons hábitos alimentares durante a promoção de saúde oral? \***

Marcar apenas uma oval.

- Sim  
 Não

5. **Quais das seguintes doenças orais tem conhecimento e se sente capacitado para poder prevenir? \***

Marcar tudo o que for aplicável.

- Cárie  
 Leucoplasia  
 Gengivite  
 Candidíase Oral  
 Periodontite

6. **Que técnica de escovagem leciona nas escolas? \***

Marcar apenas uma oval.

- Técnica de Bass Modificada - Escova posicionada a 45° em relação à gengiva, com movimentos vibratórios curtos no sentido antero-posterior.  
 Técnica de Fones - Movimentos rotacionais  
 Stillman Modificado - Escova posicionada a 45° em relação à gengiva, com movimentos de varrimento da gengiva para o dente.  
 Não abordo este assunto

7. **Quantas vezes por dia aconselha a escovagem dos dentes? \***

Marcar apenas uma oval.

- 1  
 2  
 3  
 Sempre após as refeições

8. **Alerta os pais e professores para que a escova de dentes tenha o tamanho de criança? \***

Marcar apenas uma oval.

- Sim  
 Não  
 Às vezes  
 Não abordo este assunto

## EVALUATION OF THE STRATEGIES USED IN THE PREVENTION OF PERIODONTAL DISEASES IN SCHOOL HEALTH IN PORTUGAL

23/02/2018 Avaliação das estratégias e técnicas utilizadas na prevenção e diminuição de doenças periodontais por parte dos profissionais responsáv...

9. **Que dureza de cerdas aconselha para as escovas dentárias? \***

Marcar apenas uma oval.

- Dura
- Média
- Suave
- Não abordo este assunto

10. **Durante a instrução da escovagem aconselha? \***

Marcar tudo o que for aplicável.

- A remoção de resíduos alimentares de todos os dentes.
- A remoção da placa bacteriana consoante o número de dentes que a escova abrange.
- A remoção da placa bacteriana dente a dente.
- Não abordo este assunto.

11. **Durante a explicação da técnica de escovagem dá ênfase à importância da remoção da placa bacteriana junto à gengiva? \***

Marcar apenas uma oval.

- Sim
- Não
- Não abordo este assunto

12. **Durante a instrução de Higiene Oral aconselha a limpeza interdentária?**

Marcar apenas uma oval.

- Sim
- Não
- Não abordo este assunto

13. **Que tipo de utensílios indica para executar a limpeza interdentária? \***

Marcar apenas uma oval.

- Fio dentário
- Escovilhão Interdentário
- Outros

14. **Que soluções de bochecho aconselha? \***

Marcar apenas uma oval.

- Soluções à base de Flúor
- Soluções à base de Clorexidina
- As duas dependendo das necessidades de saúde oral da criança
- Não abordo este assunto



## EVALUATION OF THE STRATEGIES USED IN THE PREVENTION OF PERIODONTAL DISEASES IN SCHOOL HEALTH IN PORTUGAL

23/02/2018 Avaliação das estratégias e técnicas utilizadas na prevenção e diminuição de doenças periodontais por parte dos profissionais responsáv...

15. **Considera normal sangrar das gengivas quando escova os dentes? \***

Marcar apenas uma oval.

Sim

Não

16. **Aconselha os Pais e Professores a verificarem a cor, forma e sangramento das gengivas nas crianças? \***

Marcar apenas uma oval.

Sim

Não

Algumas vezes

Não abordo este assunto


17. **Alerta os professores, pais e crianças de forma a que estes percebam que sangrar das gengivas não é normal? \***

Marcar apenas uma oval.

Sim

Não

---

Com tecnologia  
 Google Forms

EVALUATION OF THE STRATEGIES USED IN THE PREVENTION OF PERIODONTAL DISEASES IN SCHOOL HEALTH IN PORTUGAL

Attachment VIII: Authorization ARS Centro



COMISSÃO DE ÉTICA PARA A SAÚDE

<b>PARECER FINAL:</b>  Parecer favorável. Nota: já possui parecer favorável da ARS Norte.	<b>DESPACHO:</b> <i>Henrique Mendes</i> <i>08-03-2018</i>  Comissão Ética da A.R.S. do Centro, I.P. <i>[Signature]</i> Dr. Henrique Mendes Presidente <i>[Signature]</i>
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**ASSUNTO:** 14/2018 - "Avaliação das estratégias e técnicas utilizadas na prevenção e diminuição de doenças periodontais por parte dos profissionais responsáveis pela promoção da saúde oral nas escolas"

O estudo pretende analisar o conhecimento e importância dada pelos profissionais responsáveis pela promoção de saúde e higiene oral nas escolas do centro do país para as doenças periodontais. Pretende, também, aumentar os níveis de conhecimento e alerta das doenças periodontais por parte destes profissionais.

O estudo é interessante e pode originar resultados relevantes para a promoção da saúde oral. Do ponto de vista ético-jurídico não há nada a assinalar.

Coimbra, 07 de Março de 2018

*[Signature]*  
O Relator  
(Dra. Carla Barbosa)

O presidente da CES  
(Prof. Dr. Fontes Ribeiro)

*[Signature]*

EVALUATION OF THE STRATEGIES USED IN THE PREVENTION OF PERIODONTAL DISEASES IN SCHOOL HEALTH IN PORTUGAL

Attachment IX: Authorization ACES Cova da Beira

**Secretaria ACeS Cova da Beira**

**De:** Miguel Bernardo Pereira Barbosa de Magalhaes <29428@ufp.edu.pt>  
**Enviado:** domingo, 25 de Fevereiro de 2018 22:47  
**Para:** Secretaria ACeS Cova da Beira  
**Assunto:** Pedido de autorização para estudo observacional  
**Anexos:** modelo submissao ars centro.pdf; Parecer ARSNorte.pdf; Questionário Centro.pdf

Exmo. Director Executivo Dr. João Bento

O meu nome é Miguel Magalhães, sou estudante de medicina dentária e estou a realizar um estudo observacional nacional, que consiste num pequeno questionário que avalia estratégias e técnicas de higiene oral, direccionado para os profissionais responsáveis pela promoção da saúde oral nas escolas.

Após contacto com a Comissão de Ética ARS Centro, foi-me dito que para poder submeter este estudo à CES, necessito de uma autorização prévia do director de cada ACES.

Em anexo segue o questionário do estudo e o consentimento informado, o modelo de submissão (CES Centro) e um parecer favorável da ARS norte, do ano passado, para o mesmo estudo.

Caso, concorde com a realização do mesmo e de forma a agilizar o processo, evitando desta forma um segundo pedido, solicitava o número e a classe de profissionais responsáveis por esta área neste ACES, ou seja, os interligadores (normalmente enfermeiros/higienistas orais) que fazem o trabalho de campo na área de saúde, para poder adicionar à dimensão amostral no modelo de submissão do estudo à CES Centro.

Muito obrigado pela ajuda, estarei disponível para prestar mais alguma informação necessária.

Melhores Cumprimentos

Miguel Magalhães

Nada a opor  
se obtido o  
parecer favorável  
do CB de ARS C

É necessário o  
parecer do CB de  
ARS Centro

ACES Cova da Beira  
Presidente do Conselho  
Clínico e de Saúde

(Prof. Doutor António José S. Silva)

ACES Cova da Beira  
Presidente do Conselho  
Clínico e de Saúde

(Prof. Doutor António José S. Silva)

EVALUATION OF THE STRATEGIES USED IN THE PREVENTION OF PERIODONTAL DISEASES IN SCHOOL HEALTH IN PORTUGAL

Attachment X: Authorization ACES Dão Lafões



SNS SERVIÇO NACIONAL DE SAÚDE

ARSC ADMINISTRAÇÃO REGIONAL DE SAÚDE DO CENTRO, I.P.



DECLARAÇÃO

Luis Manuel Chaves Soveral Botelho, Diretor Executivo do ACeS Dão Lafões, declara para os efeitos tidos como convenientes que se emite concordância e autorização de aplicação do estudo no ACeS, sobre:

**"Avaliação das Estratégias e Técnicas utilizadas na prevenção e diminuição de doenças periodontais por parte dos profissionais responsáveis pela promoção da saúde oral nas escolas".**

Por ser verdade, e me ter sido pedido, mandei passar a presente declaração que vai ser por mim assinada e autenticada com o selo branco em uso nestes serviços.

Viseu, 13 de março de 2018

O DIRETOR EXECUTIVO

(Luis Soveral Chaves Soveral Botelho, Dr.)

# EVALUATION OF THE STRATEGIES USED IN THE PREVENTION OF PERIODONTAL DISEASES IN SCHOOL HEALTH IN PORTUGAL

## Attachment XI: Authorization ACES Pinhal Interior Norte



Miguel Bernardo Pereira Barbosa de Magalhães <29428@ufp.edu.pt>

### Pedido de autorização para estudo observacional ACES Pinhal Interior Norte

PCCS Pinhal Interior Norte <pccs.pin@arscentro.min-saude.pt>  
Para: Miguel Bernardo Pereira Barbosa de Magalhães <29428@ufp.edu.pt>  
Cc: de Pinhal Interior Norte <de.pin@arscentro.min-saude.pt>

27 de março de 2018 às 16:18

Exmo. Dr. Miguel Barbosa de Magalhães,

Encarrega-me o Sr. Diretor Executivo e o Conselho Clínico e de Saúde de informar que, após análise do seu pedido de realização de estudo, considerou pertinente o tema e de todo o interesse para o ACeS.

Assim, é concedida autorização para realização do mesmo, solicitando que nos sejam facultadas as conclusões do mesmo.

Informamos ainda que o responsável pela saúde escolar neste ACeS, é o Sr. Coordenador da Unidade de Saúde Pública, o Dr. António Firmino Queimadela Baptista, com o mail [usp.pin@arscentro.min-saude.pt](mailto:usp.pin@arscentro.min-saude.pt).

Com os melhores cumprimentos,

A Assistente Técnica

Sandra Mendes

Conselho Clínico e de Saúde  
ACeS Pinhal Interior Norte  
Av. Coelho da Gama, n.º 32, 3200-2010 Lousã  
Telefone - 239 077 000  
[pccs.pin@arscentro.min-saude.pt](mailto:pccs.pin@arscentro.min-saude.pt)

<https://mail.google.com/mail/u/1/?ik=2e6cb29038&view=pt&as=rc=1-a:3&permmsgid=msg%3A15061D4567443117476&ui=msg%3A15061D4567443117476>

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# EVALUATION OF THE STRATEGIES USED IN THE PREVENTION OF PERIODONTAL DISEASES IN SCHOOL HEALTH IN PORTUGAL

## Attachment XII: Authorization ACES Baixo Vouga



Miguel Bernardo Pereira Barbosa de Magalhaes <29428@ufp.edu.pt>

### Pedido de autorização para estudo ACES Baixo Vouga

Pedro Nelson Castelo Branco Almeida <PNAlmeida@arscentro.min-saude.pt>  
Para: "29428@ufp.edu.pt" <29428@ufp.edu.pt>  
Cc: Patricia Isabel Albuquerque Martins Fonseca <PIFonseca@arscentro.min-saude.pt>

16 de março de 2016 às 16:21

Bom tarde, Miguel Magalhães

O pedido que nos apresentou encontra-se autorizado pelo que o aconselho a contactar diretamente a Coordenadora da URAP do ACES Baixo Vouga para que se articule de forma a poder implementar da forma mais eficaz o seu projeto nesta organização.

Os melhores cumprimentos

Pedro Almeida

Diretor Executivo ACES Baixo Vouga



[https://www.google.com/mail/u/1/?ik=2&ic=0503&view=pt&search=4:5pe-mmgqo-mag\\_#3A1016111044358298506&mp=mag\\_#3A1055111044358298506](https://www.google.com/mail/u/1/?ik=2&ic=0503&view=pt&search=4:5pe-mmgqo-mag_#3A1016111044358298506&mp=mag_#3A1055111044358298506)

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# EVALUATION OF THE STRATEGIES USED IN THE PREVENTION OF PERIODONTAL DISEASES IN SCHOOL HEALTH IN PORTUGAL

## Attachment XIII: Authorization ACES Pinhal Litoral



Miguel Bernardo Pereira Barbosa de Magalhaes <29428@ufp.edu.pt>

### Pedido de autorização para estudo ACES Pinhal Litoral

Clarisse Pinto Sousa Bento <CPBento@arscentro.min-saude.pt>

3 de abril de 2016 às 12:25

Para: "29428@ufp.edu.pt" <29428@ufp.edu.pt>

Cc: Maria Ines Ferreira Carvalho Pinto <MIIPinto@arscentro.min-saude.pt>, Pedro Manuel Goncalves Sigalho <PMSigalho@arscentro.min-saude.pt>

Bom dia,

Sou a Gestora dos Programas de Saúde Escolar e de Saúde Oral no ACES PL e, de acordo com o solicitado pela Presidente do Conselho Clínico e de Saúde e para um melhor entendimento da operacionalização do estudo que pretende colocar em prática, penso que seria vantajoso podermos falar, de preferência, presencialmente.

Para o efeito, agradeço que me contacte, ou para este email ou os seguintes contactos telefónicos:

244 572923 (Saúde Pública Marinha Grande)

244 812200 (ACES PL, à 4ª ou 6ª feira)

ou 969703527

Com os melhores cumprimentos,

Clarisse Bento

Médica Especialista em Saúde Pública

Gestora dos Programas de Saúde Escolar e de Saúde Oral

ACES Pinhal Litoral

Email: CPBento@arscentro.min-saude.pt

Telefone: 244 812 200

---

De: Maria Ines Ferreira Carvalho Pinto

Enviada: 22 de março de 2016 15:10

Para: Clarisse Pinto Sousa Bento <CPBento@arscentro.min-saude.pt>

Cc: Pedro Manuel Goncalves Sigalho <PMSigalho@arscentro.min-saude.pt>

Assunto: Fw: Pedido de autorização para estudo ACES Pinhal Litoral

Boa tarde Dra. Clarisse,

Encaminho-lhe pedido de estudo que tem o aval positivo da ARS Centro e do Conselho Clínico e de Saúde.

Com os melhores cumprimentos,

Inês Carvalho Pinto

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