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Promoting Wellbeing for Periodontal Health

Managing Risk and Changing Behaviour

Course #15-3UK

Disclosure Statement:

- The content for this CPD was developed and written by Deborah M. Lyle, RDH, BS, MS; a Water Pik, Inc. employee.
- This article was designed, developed and produced by Water Pik, Inc.
- Water Pik, Inc. manufactures and distributes products addressed in this article.

Course Objective:

To provide the learner with ways to help patients reduce periodontal risk by making healthy decisions and good choices for oral care prevention.

Learning Outcomes:

- Identify risks that can impact periodontal disease.
- Discuss the importance of smoking cessation and the effect on the initiation or progression of periodontal disease.
- Explain how electronic cigarettes may be useful for smoking cessation.
- Understand the differences of a practitioner-centered approach vs a patient-centered approach.
- Explain the importance of reviewing and discussing the medical, dental and personal history.
- Explain how language impacts a patient's behaviour and willingness to change.

INTRODUCTION

There is much in social and print media that reminds us to exercise, eat the right foods and have a healthy work-life balance. This is a good thing as it helps to promote a healthy lifestyle. The question is, do you transfer this thinking to the dental practice? Perhaps it would be easier to think of risk assessment and prevention as promoting wellbeing. It may be a way to help your patients understand and make the necessary changes.

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A proactive approach can prevent disease and promote a state of wellbeing. Waiting until something breaks down before recommending an intervention or a behaviour change is not the best way to promote wellbeing, especially for those at higher risk for oral disease. The idea is to identify individuals who are at risk for disease and provide recommendations to prevent or minimise dental problems. Wellbeing may mean different things to different people but overall it is being healthy in body and mind, especially as a result of deliberative effort.

We want the public to realise that the oral cavity is linked to the body and understand the importance of good oral health. One way to accomplish this goal is to evaluate the patient as a whole.

ASK THEM ABOUT THEIR LIFE

Inquiring about family, work and personal interests will open a dialogue and establish an element of trust and concern for your patient's overall wellbeing. This discussion may provide information about their stress levels and coping mechanisms that they otherwise would not disclose. For most, a stress free life is generally unobtainable but what can be controlled is how we manage or cope with stress. The effect of stress on oral health is relatively new in the literature but the findings are not that unexpected. People with significant chronic stress tend to have more severe periodontal disease. One of the important findings is that those who had better coping mechanisms had less-severe disease than those with poor coping skills.[1] There are a few ways that stress can have a negative impact on oral health: lack of attention to oral hygiene, increase in risky behaviours such as smoking, drug and alcohol use and withdrawl from personal interaction. Physiologically there is an increase in cortisol secretions which can have a negative effect on regulating inflammation.[1] Therefore, the focus of stress management could be to communicate the need to manage the stress effectively and not look for ways to eliminate it or expect the patient to just stop worrying.

OBTAIN A COMPREHENSIVE HEALTH, DENTAL AND PERSONAL HISTORY

Do not expect patients to remember every detail of their medical, dental or personal history. They usually do not leave out details on purpose but after a few decades memory fades and details become fuzzy. In some cases, they may decide some information is either embarrassing or too personal to share. This is usually rooted in the lack of understanding how a history of human papillomavirus (HPV) is important to their dental treatment for instance. Likewise, it is hard for some patients to understand that their medication details are important to help develop a safe and appropriate prevention plan.

Smoking, tobacco use and e-cigarettes

There are about 10 million people who smoke in the UK. Smoking prevalence is highest in the 25 – 34 age range at 25% and only 11% in those aged 60 and higher.

It is well-established that smoking is a risk factor for oral disease and oral cancer. The good news is that the number of smokers is decreasing in the UK, but don't let that stop you from asking ALL patients if they smoke, including children and teens. There are about 10 million people who smoke in the UK. Smoking prevalence

is highest in the 25 – 34 age range at 25% and only 11% in those aged 60 and higher. Unfortunately, two-thirds of smokers start before age 18.[2] Not all children will tell you they smoke and many parents may not know or even suspect. Clinical changes to look for in younger patients include more visible plaque, increased pocket depths (≥ 4 mm) and subgingival calculus.[3] There is a higher prevalence and severity of periodontal disease in children who smoke.[4] These findings in children and teens open the door to further discussion on smoking and the implications for overall health and cessation programmes.

Some adults may not tell you they smoke to prevent the 'lecture' on quitting. Or, they may say they used to smoke but now use electronic cigarettes (e-cigarettes) instead. In the UK, e-cigarette use has doubled each year between 2011 – 2014 and currently reports suggest 19% of the population have used them at least once and 11% use them daily.[5] E-cigarette use has opened up a new area for health care professionals to understand. Their use seems to eliminate or reduce some known risks of smoking on oral and general health but there is little data from quality studies that evaluated the oral effects from e-cigarettes.[6] Surveys did identify a common complaint of 'mouth and throat dryness and irritation'.[7]

More research on the effects of e-cigarettes on oral tissue is needed but to date there is growing evidence that they may be useful for smoking cessation ***(Box 1)***.[8] The question is do e-cigarettes reduce harm for those who do not wish to quit or find it an overwhelming task? The answer is maybe as noted in a small observational study that reported on 40 smokers, 22.5% were able to quit. Of those, 12.5% went from 30 cigarettes per day to 3 and 32.5% went from 25 per day to 6.[7]

E-cigarette impact on smoking cessation*

Nicotine containing e-cigarettes increased the chances of quitting long term compared to e-cigarettes without nicotine.

E-cigarettes with nicotine helped users reduce the amount they smoked by at least half compared to those using e-cigarettes without nicotine.

People who used e-cigarettes were more likely to cut the amount they smoked by half compared to people who used a nicotine patch.

There was no evidence of harm noted with e-cigarette use of 2 years or less.

*This systematic review found only two studies to include with a total of 600 subjects. The evidence is low based on the low number of studies.

Box 1

Do I tell patients they need to lose weight?

It is not easy to discuss weight with a patient and it is even harder when they don't expect it from their dental professional. Most patients would expect their healthcare provider to not pass judgement based on weight but some physicians lack a desire to help obese patients and have preconceived ideas that they lack discipline, are unmotivated and even lazy, especially when it comes to controlling their weight.[9,10] Dental and dental hygiene students also harbour negative attitudes toward obese patients.[11] To date there are no studies on practising dental professionals, but based on available data in the healthcare field, it would not be surprising to find similar negative responses.

Obesity is a significant predictor of periodontal disease and is mediated by insulin resistance.[13]

Obesity is an inflammatory condition and a significant risk factor for type 2 diabetes, as well as being associated with many chronic diseases. Obese people have a higher risk of developing cardiovascular disease, orthopedic complications and cancer.[12] Obesity is a significant predictor of periodontal disease and is mediated by insulin resistance.[13] Overweight and obese patients are also twice as likely to have periodontal disease, and obesity in the UK continues to rise with approximately 25% of the population currently considered overweight or obese.[14]

Regardless of the behaviour change, patients need support and encouragement from all their healthcare providers. Discussing obesity and its impact on oral health is a paradigm change but contributes to the wellbeing of the patient. It may not be comfortable now to start discussing weight loss and oral health risk but asking the patient if there is anything they are working on or would like to address to improve their wellbeing is a start.

If your patient is not motivated by their own mortality and quality of life, the place to start is to find out why and use the information to explore ways to move them forward.

Poor oral hygiene

Some risk factors can be changed (modifiable) and others cannot (unmodifiable). Poor oral hygiene should be one of the easiest risk factors to change but it seems insurmountable for some people. There are two parts to this problem – the patient and the practitioner. The patient may not hear, understand or care about their oral hygiene. The practitioner may not have time to adequately discuss appropriate oral hygiene or may not have the communication skills to effectively elicit behaviour change. It is complicated and takes time to move people to a healthier lifestyle that includes good oral hygiene. Therefore, don't get discouraged, get motivated to improve.

That is easier said than done. Let's put it in perspective. Coronary heart disease (CHD) is a leading cause of death in the UK. Every day approximately 200 people die from heart disease. Many of the risk factors for CHD are preventable but require participation and adherence to therapeutic modalities and lifestyle changes by the patient.[15] In one study where the women were aware of the risk for heart disease, only 3% were engaged in healthy behaviours of maintaining appropriate body weight, eating a healthy diet, exercising regularly, not smoking and moderating alcohol intake. Just knowing the risks did not seem to motivate behaviour change.[16]

PROMOTING WELLBEING

There are several theories to help patients transition to a wellbeing model by reducing risk for disease, adopting good behaviours and making life changes. DiClemente and Prochaska introduced the six-stage Transtheoretical Model after they observed the changes their clients made in dealing with addiction problems such as smoking, overeating and over drinking ***(Box 2)***.[17,18]

The Transtheoretical Model: Stages of Change

Precontemplation: May not see the problem or think others are exaggerating and resist change. Often referred to as 'the Four Rs' – reluctance, rebellion, resignation and rationalisation.

Contemplation: Acknowledged the problem, thinking about taking action and struggling to take the next step to making a decision to change.

Determination: This is the commitment to change. They are committed to change and begin making a plan to move forward.

Action: Implementing the plan, seeing success and adapting or changing along the way. They often feel more self-confident and determined to be successful.

Maintenance: This is where the behaviour or change becomes natural. There can be lapses and relapses but they have the skills and support to minimise any serious slide back to the original starting point.

Termination: They have confidence they can cope and maintain new behaviours for a lifetime.

Box 2

The Self-Determination Theory (SDT) is a framework for the study of human motivation and personality. This theory was initially developed by Deci and Ryan but has been modified and refined over the years.[19,20] It is centered on motivation – how people will move themselves to act. Part of this theory is the inherent need that people must feel autonomous. If they feel controlled their intrinsic motivation will decrease. People must also feel competent in performing the task at hand; feeling effective, or self-efficacy, produces a sense of satisfaction. Autonomy and competence go hand in hand. Competence provides a catalyst for action and autonomy fosters self-motivation.

Research shows that people are not motivated to floss even when they know the risks.

A good example of this is dental flossing. Research shows that people are not motivated to floss even when they know the risks. There are many reasons people don't floss; it is difficult so they don't think they can master the correct technique, it's uncomfortable, they 'forget' to floss, among others.[21,22] Not feeling competent certainly is an issue. When given a choice patients readily choose other interdental devices such as brushes or floss holders over dental floss.[23] They feel that they are being told what to do and are not involved in the decision making process.

Getting Started

Move away from the practitioner-centered model. This is based on the belief that the provider is the expert. It is believed that if the patient knows the 'why' and 'how' they will do as advised. This method rarely works for healthcare providers. There is no autonomy and it does not allow for people to synthesise information until they are ready to change.

A patient-centered method focuses on collaboration with the patient. By gaining a rapport and reframing the question it is possible to find out the patient's goals, values and aspirations and use them to motivate for change. This is called motivational interviewing which has gained popularity recently and shown to be better than the practitioner-centered model.[24,25]

Language can be powerful and either help or hinder the conversation. Consider the potential that the reframing of these statements creates:

Are you flossing?	**Tell me what you do to take care of your teeth.**
You need to floss every day.	**Help me understand why you do not floss?**
Let me show you again.	**How can I help you?**
If you don't start flossing you will end up needing to see the periodontist.	**Can you give me an idea of how important this is to you on a scale of 1 - 10?**
I really want you to make this change.	**What do *you* want to do moving forward?**
You need to stop smoking!	**Do you want to quit smoking?**
You just have to make the commitment.	**Have you attempted to stop smoking before? What was that like for you?**
If you don't stop you will start losing teeth.	**Does it seem feasible that you can quit smoking?**
I know several people who stopped smoking by decreasing gradually each day.	**There are several ways to stop smoking. You can find out more about these methods at _____ if you are interested. You can then tell me if any of these options seem realistic for you.**

Be prepared

You will need to make sure you are aware of alternatives and resources so that you can guide the patient in the direction that best suits them. For example, if they need to start cleaning interdentally and do not want to use dental floss, a good understanding of other options is needed. First you can make them feel comfortable that flossing is not the best and only answer to interdental cleaning. Systematic reviews have shown that flossing has limited or no effect on plaque removal or reduction of inflammation.[26,27] It is best used for those who have a healthy dentition, can perform the flossing technique at a high level and actually like to floss.

A review on managing gingivitis as the primary prevention of periodontitis reported that interdental brushes (IDB) are the device of choice compared to floss in periodontal patients who have adequate interdental space for the brush to fit without causing trauma. This conclusion is based on research demonstrating better plaque removal, but there was little evidence showing a reduction in inflammation when using IDB.[28]

There is considerable evidence that a Waterpik® Water Flosser can remove plaque and reduce inflammation significantly better than flossing.

The Water Flosser was not included in this analysis due to the choice of studies considered. However, there is considerable evidence that a Waterpik® Water Flosser can remove plaque and reduce inflammation significantly better than flossing ***(Figures 1 & 2, Video 1).***[29-32] It has shown significant benefits for patients in a periodontal maintenance programme and those with gingivitis, orthodontic appliances, crowns or bridges and diabetes.[29-34] The Water Flosser has also been compared to the Sonicare® Air Floss and Air Floss Pro, demonstrating significantly better plaque removal and improvements in inflammation than both Sonicare products.[35-37]

The comprehensive research on the Waterpik® Water Floss makes it a necessary inclusion in the discussion on interdental cleaning with your patients.

Figure 1: Waterpik® Ultra Professional Water Flosser

Figure 2: Waterpik® Cordless Advanced

Summary

Getting patients to make health related changes is challenging and frustrating. It is time to look at your patients as the complex beings that they are, with a mind and will to make their own decisions. A new approach to a wellbeing message using techniques and models that change the discussion may help eliminate some of the frustrations for both practitioner and patient.

Remember the goal is to guide the patient toward a healthy lifestyle that promotes good oral health and overall wellbeing. How or if they get there is their decision.

Video 1: Dental Professionals

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POST TEST FOR COURSE #15-3UK

Promoting Wellbeing for Periodontal Health: Managing Risk and Changing Behaviour

1. **Which of the following is not a risk factor for periodontal disease?**
   a. Stress
   b. Smoking
   c. Height
   d. Weight

2. **An increase in cortisol secretions due to stress has a:**
   a. Positive effect on inflammation
   b. Negative effect on inflammation
   c. Depends on the type of stress
   d. No effect on inflammation

3. **Children who smoke may have**
   a. More visible plaque
   b. Subgingival calculus
   c. Increased pocket depths
   d. All of the above

4. **A common complaint from e-cigarette users is**
   a. Bad taste in mouth
   b. Sore tongue when chewing
   c. Mouth and throat dryness and irritation
   d. Bad breath and loss of appetite

5. **Overweight and obese patients are ______ as likely to have periodontal disease.**
   a. Two times
   b. Three times
   c. Four times
   d. Five times

6. **Which of the following risk factors for periodontal disease are *not* modifiable?**
   a. Stress coping mechanism
   b. Smoking habit
   c. Poor oral hygiene
   d. Age and race

7. **Self-Determination Theory is a framework for motivation and personality. People must feel autonomous and have a sense of satisfaction.**
   a. First sentence is true, the second is false
   b. First sentence is false, the second is true
   c. Both sentences are true
   d. Both sentences are false

8. **The determination phase of the Transtheoretical Model is where the patient**
   a. Has implemented the plan
   b. Is committed to change
   c. Has acknowledged the problem
   d. Has confidence they can cope

9. **Research shows that the Water Flosser**
   a. Can remove plaque
   b. Can reduce gingivitis
   c. Is superior to dental floss
   d. All of the above

10. **Nicotine containing e-cigarettes have been shown to increase the chances of quitting long term. E-cigarettes without nicotine helped users reduce the amount they smoked by at least half.**
    a. First sentence is true, the second is false
    b. First sentence is false, the second is true
    c. Both sentences are true
    d. Both sentences are false

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CPD SAMPLE REGISTRATION FORM AND ANSWER SHEET

Course #15-3UK: Promoting Wellbeing for Periodontal Health: Managing Risk and Changing Behavior

Name:

Position:

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Practice Answer Sheet

Please circle the correct answer for each question.

1.	a	b	c	d
2.	a	b	c	d
3.	a	b	c	d
4.	a	b	c	d
5.	a	b	c	d
6.	a	b	c	d
7.	a	b	c	d
8.	a	b	c	d
9.	a	b	c	d
10.	a	b	c	d

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