THE BEHAVIOURAL INFLUENCE ON A PATIENT OF A CLINICIAN'S CHOICE OF TOPIC SPECIFIC WORDS

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INTRODUCTION

It has been recognised that not only does the patient interview need to be empathetic but the discussion content needs to be topic specific.[1] In recent years, clinicians have been encouraged by the General Dental Council to move towards patient-centred care.[2] In addition to this, it has been described that simply 'being nice' and maintaining a good relationship with the patient are not sufficient for patient-centred care. Patient-centred care requires detailed topic-based discussions.[3] However, there appear to be no studies on topic-specific words and their influence on patient understanding.

Beyond that, it is accepted that 'effective communication' is essential to behaviour change and was comprehensively covered and discussed in detail in a series of articles by Ruth Freeman in 1999.[4] The importance of effective communication and behaviour change is further underlined by the fact that the majority of dental care requires patients to adhere to advice, otherwise the care is undermined.[5]

It is intriguing that despite the dental profession believing they are actively engaging in effective patient communication the prevalence of periodontal diseases remains largely unchanged. Chronic periodontitis occurs in 45% of the UK population[6] and in 11.2% of the global population[7].

Experience suggests that, when patients find it difficult to make the necessary behavioural changes, it is generally for a variety of reasons, including: they do not fully understand periodontal diseases, they do not appreciate the long-term implications and legacy of the disease, they do not entirely recognise the pivotal role of homecare, or they are individuals who understand all the advice but do not want to change.

A POSSIBLE SOLUTION

In my practice I created a table with a list of 20 topic-specific words and phrases (Table 1). The words and phrases were selected from those I heard being used most commonly by patients and dental professionals. On the right-hand side of the list I placed a Likert-type scale numbered from 1 to 5. My plan was to ask potential participants to rate the words/ phrases by circling one number on the scale for each of them to indicate the degree of perceived encouragement or motivation each word/ phrase offered them.

Starting in June 2022, every new patient referred was invited to take part with the aim of compiling 100 lists. By virtue of the referral, all patients had received at least one course of periodontal therapy from the referring dentist. Potential participants were recruited by discussing the purpose of the study with them in the waiting room, following the completion of their initial consultation. The following statements were made as an invitation to take part:

"I am conducting a small study in an attempt to identify if some of the words we use when we discuss gum disease with our patients affect their enthusiasm more than other words. Essentially, I want to see if some words create more of a feeling of seriousness and also if some words create a greater feeling of enthusiasm or motivation to act on the advice than other words."

'Motivation' was defined as: "It makes you feel like taking the matter seriously" and "It makes you want to do your part in resolving the matter". Potential participants were also advised: "What I really want to see is if any of the words or phrases make you feel more like sitting down for 8 to 10 minutes each evening to use floss or inter-dental brushes or wood sticks to clean in-between your teeth and the margins of your gums."

During the discussion, and before the patients agreed to participate, they were given the list so they could see what was being described. They were also given guidance for the Likert-type scale (Table 2). To maintain anonymity, patients were advised that they were not required to put their name on the list—only their age and gender.

Those patients who agreed to take part were then shown to a seat and asked to read the list and rating scale carefully and to confirm their understanding. Reassuringly, a few of them smiled and said: "It's pretty straight forward," others laughed and said: "It's not rocket science."

Table 1: The list, with the words and phrases and the Likert-type scale

	Word/Phrase					
1	Inflammation	1	2	3	4	5
2	Irritated gums	1	2	3	4	5
3	Irreversible	1	2	3	4	5
4	Results from food packing	1	2	3	4	5
5	Causes swelling	1	2	3	4	5
6	Affects supporting structures of teeth	1	2	3	4	5
7	Causes bleeding	1	2	3	4	5
8	May cause bone loss	1	2	3	4	5
9	Infection	1	2	3	4	5
10	Causes bad breath	1	2	3	4	5
11	Reversible	1	2	3	4	5
12	Gingivitis	1	2	3	4	5
13	Avoid dentures	1	2	3	4	5
14	Periodontitis	1	2	3	4	5
15	Will result in tooth loss	1	2	3	4	5
16	Halitosis	1	2	3	4	5
17	Will cause bone loss	1	2	3	4	5
18	Caused by bacteria	1	2	3	4	5
19	Result in food packing	1	2	3	4	5
20	May result in tooth loss	1	2	3	4	5

Table 2: Guidance explaining the grading scale

Grade	
1	Least likely to encourage/motivate me to take action
2	
3	
4	
5	Most likely to encourage/motivate me to take action

FINDINGS

One hundred lists were rated between June 2022 and January 2023; a record was kept of the participants, although at no point were their names written on the list. Fifteen patients declined the invitation to take part in the study. Of the reasons given , the two main ones were: "It's not something that I'm interested in" and, "I don't have time."

On the 100 lists that were completed, responses were received for all 20 words/phrases. The gender demographic was split, 61 females and 39 males. The average age was 57years; the youngest patient was 18 and the oldest was 77.

A mean score for each word/phrase was calculated. The maximum score was 5, the word/phrase was most likely to encourage/motivate the patient; the lowest score was 1, the word/phrase was least likely to encourage/motivate the patient. Although it was not the original intention, the mean score became known as the 'Encouragement Value'.

Table 3: Results present the actual number of patients who circled each score. The mean is represented on the right-hand side and the words/phrases have been listed in descending order of Encouragement Value.

Word/Phrase	Score Given					Mean Score
	1	2	3	4	5	
Will result in tooth loss	0	0	0	13	87	4.87
Causes bad breath	0	0	0	15	85	4.85
Irreversible	0	0	9	13	78	4.69
Infection	0	0	5	22	73	4.68
May result in tooth loss	0	7	3	25	65	4.48
Will cause bone loss	7	3	4	16	70	4.27
Causes swelling	0	4	16	38	42	4.18
Avoid dentures	0	4	8	55	33	4.17
Causes bleeding	0	8	32	21	39	3.91
May cause bone loss	0	11	18	49	22	3.82
Result in food packing	0	9	31	41	19	3.70
Results from food packing	22	16	22	19	21	3.01
Caused by bacteria	5	44	33	15	3	2.67
Halitosis	18	31	28	15	8	2.64
Irritated gums	18	69	1	10	2	2.09
Affects supporting structures of teeth	57	9	11	18	5	2.05
Periodontitis	53	23	4	11	9	2.00
Gingivitis	55	21	12	7	5	1.86
Inflammation	67	09	13	5	6	1.74
Reversible	69	24	7	0	0	1.38

For example, the mean score for 'Will result in tooth loss' was calculated as follows: 13x4 + 87x5 divided by 100 (52+435 divided by 100 = 4.87)

DISCUSSION

The findings suggest that, in the opinion of susceptible patients with experience of periodontal diseases, certain words when used to describe the disease can, somehow, generate different feelings, with some being more motivational than others. This indicates that patients form different meanings from different words. It also suggests that words can change the way a patient thinks. These points align well with research carried out by Andrew Newberg and Mark Waldman in their book *Words Can Change Your Brain*.[8] The authors also proposed that the mechanism behind how we process a communication is directly related to the number of words that are used. They claim that 30 seconds of language is all the brain can understand and, accordingly, they encourage fewer words for greater impact.

The findings also revealed a trend: the more severe sounding words scored higher mean values. This finding aligns with the consensus that the more immediate and severe the threat, the greater the chance of positive behaviour changes.[9] DeMatteo and DiNicola also found that patients with mildly threatening problems tend not to comply with their therapists' advice. Worryingly, this suggests that some of our patients, irrespective of how we communicate with them, will fail to comply until a stage when tooth loss is inevitable.

In a more recent study, which investigated the collaboration between medicine and dentistry in relation to diabetes management[10] patients reported inconsistency in the information and advice they were given by different healthcare providers. It was suggested that consistency would be beneficial to communication. Diabetes and periodontitis are inextricably linked as chronic inflammatory diseases that adversely influence one another. The creation and use of universal statements as scripts, using the topic-specific words reported by patients as more encouraging, make sense. The scripts would increase consistency in information sharing and thus increase the potential for a positive impact on a patient's periodontal health.

The short and long term aim of periodontal therapy is to keep the inflammatory response below the threshold of bone loss or further bone loss. This is entirely dependent upon us, as clinicians, persuading our patients to take our advice and follow it.

Compliance is defined as: "the extent to which a person's behaviour coincides with medical and dental advice".[11] Compliance requires that a patient is more than just a passive receiver of information. The estimates of compliance range from 20% to over 80%.[12] Generally, the rates of compliance for long term therapy tend to converge at 50%, regardless of setting or illness.[13] Although we know that patients do not follow oral hygiene recommendations consistently, we do not know specifically why they do not. One reason it is not understood could be that compliance research has been dominated by the perspective of the healthcare professional. These findings offer an insight into these patients' perspectives.

The degree to which a patient complies with oral hygiene instruction is of more importance than the choice of any particular treatment method.[14] The literature shows that compliance in general decreases as treatment time or the complexity of the required behavioural change increases.[14] It is often the case that by the time some susceptible patients appreciate what their type of periodontal disease is and what self-care is necessary to treat, stabilise and maintain it, insufficient bone remains to retain some of their teeth. Therefore, if we are to succeed with a preventative approach, we need to empower patients and achieve compliance at the early stages of bone loss.

Around 2006, I had carefully devised the following statements to explain gum disease to my patients in a way I thought would be most effective:

1. Gum disease is an infection that irreversibly destroys the bone that holds your teeth in place.
2. When a significant amount of bone has been destroyed, your teeth will feel loose or wobbly.
3. When insufficient bone remains to support your teeth, they will start to drift or fall out.

A few of the words and phrases I put in the list in this study closely resemble some of the ones in these statements. In fact, it is my use of the above statements with my patients that inspired me to conduct this study. To avoid bias I deliberately avoided using the above statements in the initial consultations during the period of this study.

The above statements might not be to everyone's liking but they are simple, short, topic-specific and to the point. They accurately reflect the seriousness of the condition. I devised them to increase the likelihood of patients fully understanding what is being said, as amongst other things, understanding helps allay anxiety.[15] I appreciate that the statements have a negative tone; however, once patients appreciate the seriousness of their condition positive tones can be introduced by discussing the benefits of resolving the condition. Since using these statements, I have found my patients clearly understand the seriousness of their condition and, almost always, express their gratitude for the unambiguous nature of my communication. The message contains bad news but I deliver it gently with a measured polite firmness aimed at ensuring patients understand the potential seriousness of periodontal infection. [16,17,18]

CONCLUSION

In respect to the patient discussion, these findings suggest that the information which is conveyed by a single word or phrase does have the potential to affect the communication. Each word has a meaning but more importantly each word creates a mood.

CONTEXT

The author is a clinician operating a private referral practice restricted to periodontal care, with some minor oral surgery and implant dentistry. On a day-to-day basis, most treatments involve helping patients resolve their periodontal problems. The author is not a researcher, and has no experience of statistical analysis. This opinion paper was prompted by the fact that a poor understanding of 'gum disease' was relatively common amongst patients, despite the fact that they had regularly seen a dentist and/or a dental hygienist. Some of them had received multiple courses of periodontal therapy but still could not demonstrate a good understanding of gum disease. It is hoped that this article stimulates wide-spread debate as to how we communicate with our patients. It is also hoped that researchers will be inspired to utilise their resources to produce a more robust and in-depth study so that we can all learn from best practice.

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