

### Clinical Significance

Because CP is a risk factor for ED, dentists should be asked to provide periodontal treatment to help to prevent and treat ED. Urologists should be made aware of the possible contribution CP can make to the risk profile for ED and seek help from dental professionals if the patient has CP.

### RESULTS

Only diabetes and CVD were more prevalent in the ED group than in the controls. Triglycerides, CRP, and HbA1c levels were significantly higher in the ED group, with glycemic status close to reaching statistical significance.

When periodontal clinical variables were compared between the 2 groups, oral hygiene, bleeding on probing (BoP), and number of teeth present were similar. However, the ED group had more sites with periodontal probing depth (PPD) 4-6 mm and more sites with clinical attachment (CA) loss

exceeding 3 mm. The percentage of ED patients diagnosed with CP was 74%, whereas that in the control group was 58%. A significant inverse relationship was noted between the number of sites with a PPD 4-6 mm, the number of sites with CA loss > 3 mm, the Periodontal Inflammatory Severity Index (PISIM) score, and periodontitis. CP was shown to be an independent risk factor for ED. Thus even with adjustment for other risk factors, patients with periodontitis are at higher risk for having ED.

### DISCUSSION

CP and ED were related independently of other known comorbid conditions. Men having CP were 2.17 times more likely to have ED than men whose periodontal status was healthy.

Martin A, Bravo M, Arrabal M, et al: Chronic periodontitis is associated with erectile dysfunction. A case-control study in European population. *J Clin Periodontol* 45:791-798, 2018

Reprints available from A Magán-Fernández, Facultad de Odontología, Campus de Cartuja s/n, Universidad de Granada, 18071, Granada, Spain; e-mail: [amaganf@ugr.es](mailto:amaganf@ugr.es)

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## ORTHODONTICS

### Patient satisfaction with clear orthodontic aligners



#### BACKGROUND

Clear orthodontic aligners were developed to offer orthodontic movement benefits through a more transparent and esthetic device than was available traditionally. The development of these alternative means of moving teeth can be related to the recent focus of concern on patient satisfaction in the health care environment. However, the concept of satisfaction may be difficult to define because it combines the patient's goals and values, the quality of service provided, and other variables. Surveys have been done to measure patients' goals and values as well as their well-being and quality of life, leading to the concept of oral health-related quality of life (OHR-QoL), which holds that good oral health is not limited to the absence of oral disease or dysfunction but includes how oral conditions affect self-confidence and social life. Orthodontic patients who were treated solely by the Invisalign system were surveyed to determine their level of satisfaction after treatment and any changes in their OHR-QoL as a result of their Invisalign experience.

#### METHODS

The 81 adult patients were recruited from private practices in Edmonton, Calgary, Vancouver, and Toronto, Canada. Each had completed treatment with Invisalign and was asked to complete 2 validated questionnaires, which were administered on a tablet or on paper. They consisted of 94 questions divided into 2 parts. The Dental Impacts on Daily Living (DIDL) index consisted of 36 questions and sought to measure 5 dimensions of life, specifically, appearance, pain, comfort, general performance, and eating restriction, from the patient's perspective. The Patient Satisfaction Questionnaire (PSQ) consisted of 58 questions and measured the nuances of patient satisfaction using a 6-point Likert scale. The factors were related to the doctor-patient relationship, situational aspects, psychosocial and dentofacial improvements, and dental function. The responses to the 2 survey instruments were evaluated using multivariate analysis of variance, regression analysis, and canonical correlation analysis.

## RESULTS

The 24 men and 57 women ranged in age from 26 to 35 years. The DIDL instrument revealed that appearance and eating and chewing were significantly improved after aligner treatment. Negative responses regarding pain, discomfort, and performance issues were not sufficiently strong to alter the clinical applicability.

On the PSQ, none of the factors ranked as a source of dissatisfaction. The most important factor was the doctor-patient relationship. The least important factors were psychological improvement and dental function.

The most common sources of dissatisfaction were food packing between the teeth and pain when cold or hot foods were consumed. However, these negative influences were not sufficient to reduce the overall positive experience for patients.

The doctor-patient relationship correlated significantly with situational aspects, dentofacial improvement, and residual elements. Higher patient satisfaction was related to phrases such as “the orthodontist treated me with respect,” and “carefully explained what treatment would be like.”

## DISCUSSION

Overall, patients were satisfied with Invisalign treatment, especially in the areas of appearance and eating and chewing. Many aspects of patient satisfaction were tied to the doctor-patient

relationship. The negative aspects of the experience included food packing between the teeth and pain when eating hot or cold foods.

### Clinical Significance

Many positive responses were obtained in these surveys relating to satisfaction with appearance or improved ability to eat and chew. However, the factor that correlated with most of the areas of patient satisfaction was doctor-patient relationship. Patients did report some negative aspects of the clear orthodontic aligner care, including pain, bleeding gums, and stress at work while undergoing the treatment. These negative experiences were not sufficiently bothersome to affect the overall satisfaction level patients reported.

Pacheco-Pereira C, Brandelli J, Flores-Mir C: Patient satisfaction and quality of life changes after Invisalign treatment. *Am J Orthod Dentofacial Orthop* 153:834-841, 2018

Reprints available from C Pacheco-Pereira, School of Dentistry, Faculty of Medicine and Dentistry, 5-533 Edmonton Clinic Health Academy, 11405-87 Ave NW, Edmonton, AB T6G 1C9, Canada; e-mail: [cppereir@ualberta.ca](mailto:cppereir@ualberta.ca)

# PALLIATIVE CARE

## Providing oral care for palliative care patients



### BACKGROUND

Palliative care patients often have oral health complaints as their condition deteriorates, ranging from active dental caries to candidiasis and dry mouth. These oral health problems in a patient with an already compromised immune system can often precipitate further complications, so oral health needs must be an important part of end-of-life care. Often oral care for palliative care patients is insufficient. The oral care experiences of palliative care patients were documented from the viewpoint of their carers and other relatives.

### METHODS

The data were gathered from blogs and discussion forums on public internet sites. Eight blogs and 8 discussion forums were identified after a search of blog platforms such as ‘Tumblr’ and ‘Wordpress.’ The findings were evaluated using thematic analysis.

### RESULTS

Oral care was not the primary topic of any of the blogs or of 7 of the 8 discussion forums. All of the authors mentioned oral care, with their discussion thereafter classified as dealing with symptoms, procedures, or emotions.

#### Symptoms

Oral symptoms such as dry mouth and difficulty swallowing were mentioned explicitly or implicitly in 15 of the 16 sources. Most authors reported dry mouth, dry lips, and difficulty swallowing. A discussion forum on the side effects of chemotherapy and radiotherapy described loss of taste sensation, mouth ulcers, and mucositis, all of which were symptoms relatives could discern for themselves and could conceivably prepare for and address. However, most authors were reactive rather than proactive. The symptoms