RESEARCH SUMMARY

Factors of dental anxiety

Modulation of dental anxiety – the role of past experiences, psychopathologic traits and individual attachment patterns **I. Eli, N. Uziel, R. Blumensohn and R. Baht** *Br Dent J* 2004; 196: 689–694

Objective

To evaluate factors affecting modulation of dental anxiety among adults.

Methods

A total of 183 adult members of a closed communal society (Kibbutz), who have been treated since childhood only by the dentists employed in their community, were investigated concerning their past and present dental anxiety, evaluation of their past and present dentists, psychopathologic symptoms and individual pattern of attachment.

Results

The best predictor of subjects' evaluation of their present dental anxiety was the scale of anxiety as recorded by the SCL-90R questionnaire. The best predictors of the decrease in subjects' dental anxiety over time were the evaluation of their past and present dentists and the secure and avoidant patterns of attachment. Patterns of attachment (avoidant and ambivalent) were the best predictors of subjects' evaluation of their present dentist.

Conclusions

While psychopathologic traits are involved in subjects' present dental anxiety, pattern of attachment may have a dominant effect as to whether anxiety persists throughout life or can be modulated through a corrective emotional experience.

IN BRIEF

- Dental fear is a complex issue associated with both early experiences in the dental office, as well as with subjects' personal characteristics.
- Subjects' dental anxiety is closely associated with the way they evaluate their dentist's behaviour.
- Dentists' evaluation is closely associated with subjects' individual pattern of attachment (avoidant or ambivalent).
- When dental anxiety develops, the subject's individual attachment pattern (secure, ambivalent or avoidant) may have the final effect of whether anxiety persists throughout life or can be modulated with time.

COMMENT

Extreme anxiety relating to dental treatment is an important and common cause of avoidance of dental care. Three important causative factors have previously been identified:

- a) Direct conditioning which results from early aversive experience of dental treatment.
- b) Vicarious learning, through influences of family, peers and society.
- c) Personality traits which, if present, increase susceptibility to anxiety and fear on the dental setting.

The present study is of importance because it includes an investigation of a relationship between an additional factor (attachment style) and dental anxiety. Attachment theory has three identified types of attachment styles (secure, ambivalent and avoidant).^{1,2} These styles affect the strategies people use to deal with distress and to regulate mood (or affect) in any distressing or challenging situation, including dental treatment.

The Israeli Kibbutz have a relatively stable population whose dental care until recently was generally provided by dentists in the Kibbutz without the use of local anaesthesia. Improvement in dental care means that it is now possible for patients to be more receptive to and potentially less anxious about dental treatment. The authors have used this change of pattern of treatment in the relatively homogenous sample to evaluate further the factors, including attachment styles that modulate dental anxiety.

All individuals living in four Israeli Kibbutz were included in the investigation. Four validated questionnaires were distributed to all subjects.

The Dental Anxiety Scale (DAS) measured dental anxiety.

The Dentist Evaluation Scale (DES) assessed past and present dentists' performances against that of an 'ideal' dentist.

The SCL-90R provided a general measure of psychopathology including symptoms such as somatisation, anxiety, depression, anger and hostility.

The Attachment Styles questionnaire (AS) defined the attachment style of each respondent (secure, ambivalent or avoidant).

The response rate was disappointingly low for a variety of reasons, including social and cultural sensitivity of the Kibbutz members. The authors' data suggests, however, that a secure attachment pattern is significant in the individual's ability to modulate high levels of dental fear that result from early dental experiences. The authors suggest that whilst learning processes and psychopathologic traits play a role in the development of dental anxiety, the attachment pattern may be of predominant importance in whether the dental anxiety may be readily modulated.

1. Bowlby J. *Attachment and loss. Separation: anxiety and anger*. Vol.2. New York: Basic Books, 1973.

2. Ainsworth M, Blehar M, Waters E, Wall S. *Patterns of attachment*. Hillsdale, NJ: Erlbaum, 1978.

R. Jagger, Reader and Consultant in Restorative Dentistry,
Department of Adult Dental Health, Dental School,
University of Wales College of Medicine
doi:10.1038/sj.bdj.4811349