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Executive summary

The fear or inability to accept routine dental care affects approximately one-third of the adult population in the UK. It has been estimated that as many as 10 per cent are phobic of dentistry and either avoid it altogether or are very distressed if they do attend a dentist. As a result, significant deterioration in dental health is frequently reported.

Clinical Psychologists can provide effective psychological treatment to help anxious patients accept routine dental care more frequently and with less distress. This review summarises the evidence-base to support the use of psychological interventions in dentistry and the availability of this type of service provision.

Psychologists also have a key role in the assessment of the psychological impact of oral disfigurement and its treatment, as well as dental implant surgery.

Clinical psychology services can be commissioned by primary care services, e.g. primary dental practitioners (including salaried dental services) and general medical practitioners, and secondary services, e.g. dental hospital settings. Alternatively, Universities and Teaching Hospitals (Foundations, Trusts or Boards) may collaborate together to fund an academic clinical psychologist who can provide a part-time clinical service to a Dental Hospital.
Introduction

Clinical psychology in dentistry should aim:
- to reduce distress associated with dental treatment;
- to promote the uptake of necessary dental care;
- to promote oral health;
- to assess the need for cosmetic dental care.

These aims may be achieved by direct intervention with dental patients or by advising primary care dental practitioners, PCTs and Foundation Trusts as well as other professionals groups concerned with the delivery of effective dental care.
The extent of psychological need

Fear of dentistry and associated psychological difficulties, is a widespread problem prevalent in both children and adults. Patients who are highly anxious about receiving dental treatment may delay or cancel appointments, have difficulty in tolerating treatment whilst in the dental chair and setting, and may not access care at all. As a result, dental fear is reported as being the greatest difficulty faced by dentists in terms of managing their patients (Enneking et al., 1992).

It has been increasingly recognised that the behavioural sciences have an important role in dental education, practice and research. Furthermore, the need for psychological interventions in dentistry is now supported by recent guidelines, as is the importance of providing the necessary psychological guidance and expertise in terms of treatment planning and clinical decision-making (General Dental Council, 1990; British Psychological Society, 1996).

The NICE Guidelines on Dental Recall (2004) examined the potential of the patient and the dental team to improve or maintain the patient’s quality of life and to reduce morbidity associated with oral and dental disease. The recommendations take account of the impact of dental checks on: patients’ well-being, general health and preventive habits; caries incidence and avoiding restorations; periodontal health and avoiding tooth loss; and avoiding pain and anxiety. Addressing the anxiety experienced by a significant proportion of patients in the general population could increase attendance rates, improve patients’ dental and oral health, and ultimately reduce the use of secondary care services and associated costs.

The epidemiology of dental fear

Onset of dental anxiety has been linked to early conditioning during childhood (e.g. traumatic or painful dental experiences) or through vicarious learning experiences (e.g. attitudes of family members). It remains unclear as to whether dental anxiety is simply a conditioned fear or part of a more generalised anxiety or mood disorder (Locker et al., 1999).
Figures based on surveys, such as the 1998 UK Adult Dental Health Survey, suggest that 64 per cent of adults are ‘nervous of some kinds of dental treatment’ and 45 per cent ‘always feel anxious about going to the dentist’ (Kelly et al., 2000). Todd and Walker (1980) reported that 43 per cent of patients avoided going to the dentist unless they were experiencing trouble with their teeth. Of these, 58 per cent said that part of the reason was that they were ‘scared of the dentist’.

A recent study of dentally anxious adults in the West Midlands (Hill et al., 2007) found that 25 per cent of respondents cancelled or deferred dental appointments as a direct result of their anxiety. Furthermore, 16 per cent of respondents reported high levels of dental anxiety as measured by the Modified Dental Anxiety Scale (MDAS; Humphris et al., 1995). Fewer elderly adults admit to being highly nervous of dentistry. However, it is probable that more avoid dentistry because of their fear than among the young (Locker et al., 1991).

Approximately 10 per cent of anxious patients require sedation to receive dental care (Francis & Stanley, 1990). However, specialist psychological treatment approaches would be a more appropriate alternative with the added benefit that patients can learn to manage their fear and change previous patterns of behaviour.

Among children, approximately eight per cent require special care from dentists because of their fear of treatment (Holst, 1990) although possibly less than one per cent of children require specialist psychological help. For those that do suffer, the effects of dental anxiety have been shown to persist into adulthood, which can often lead to avoidance of dental care (Skaret et al., 1998) and subsequent deterioration of oral health (Hakeberg et al., 1993). It is, therefore, important that dentists are able to assess dental anxiety in child patients as early as possible in order to establish the nature and extent of their fear. Although informal clinical observations can be useful, some children are disruptive and/or unco-operative in the dental setting as a result of general behavioural problems, not because of dental anxiety. Hence, formal direct measures (i.e. self-report questionnaires/picture scales) should be employed, of which a number are available. These include: the Facial Image Scale (FIS; Buchanan & Niven, 2002); Children’s Dental Fear Survey
Clinical Psychology in Dentistry

Schedule (CDFSS; Cuthbert & Melamed, 1982); Modified Child Dental Anxiety Scale (MCDAS; Wong et al., 1998) and The Smiley Faces Programme (SFP; Buchanan, 2005).

**Malocclusion and facial disfigurement**

There continues to be conflicting evidence on the impact of malocclusion on quality of life (Bernabe et al., 2007) and it has been concluded that a greater understanding is required of the physical, psychological and social consequences of malocclusion (Zhang et al., 2006). A recent 20-year longitudinal study concluded that there was little objective evidence to support the assumption that orthodontics improves long-term psychological health (Kenealy et al., 2007).

Orthognathic treatment involves a combination of surgery and orthodontic treatment to realign the jaws and the teeth, and to improve the bite. A systematic review (Hunt et al., 2001) concluded that orthognathic patients experience psychosocial benefits, including improved self-confidence, body and facial image and social adjustment, as a result of orthognathic surgery. However, there were wide variations in the study designs and a lack of uniformity in measuring the psychosocial constructs. This made it difficult to quantify the extent and the duration of the psychosocial benefits. Recent research has recommended the provision of a clinical psychology service to orthognathic patients (British Orthodontic Society, 2007), in view of the functional and psychological benefits derived from orthognathic treatment. Although the benefits of orthognathic surgery may be more difficult to demonstrate in milder conditions such as maloccluded dentition, individual variation is important to assess in such cases (Humphris & Ling, 2000).

**Other oral health disorders**

A number of other conditions seen in dental patients have psychological components that may have a direct or indirect impact on the condition. For example, temperomandibular joint (TMJ) pain; bruxism; and burning mouth syndrome.

The psychological impact associated with facial disfigurement and oral dysfunction can cause considerable distress. For example, from
facial scarring and port wine stains to a severe maxillofacial injury or extensive resection for head and neck cancer. These patients require practical and psychological support to adjust to their difficulties and a multi-disciplinary team approach can play a vital role in terms of recovery. Furthermore, any surgical intervention in the treatment of orofacial disease involves a multi-disciplinary team approach (British Association of Oral and Maxillofacial Surgeons, 2007).

**Dental implants**
In recent years there have been considerable advances in implant surgery, and they are being used increasingly as abutments for fixed and removable prosthodontics. The psychological benefits of dental implants in patients distressed by untolerated dentures has been reviewed by Lindsay et al. (2000). Clinical Psychologists can carry out psychological assessment prior to surgery which can be important both in terms of suitability and preparation for this type of surgery as well as post-operative care. Dysmorphophobia, and Body Dysmorphic Disorder are relatively rare psychological conditions that may be more prevalent in clinics specialising in the placement of dental implants. Patients may request implants for mild aesthetic problems which normally a health commissioning team would be reluctant to supply. Other delusional or psychotic difficulties would be contra-indicative of treatment with implants.

**Consequences of dental fear**
Dental anxiety can have a significant impact on patients’ lives. Firstly, it often leads to poor dental attendance, which can have a deleterious effect on oral health (Schuller et al., 2003). Patients who do attend, may take longer to treat and treatment can become more complex as oral health deteriorates (Skaret et al., 2000). Secondly, dental anxiety and phobia can have a wide-ranging and profound impact on individuals’ daily lives (Buchanan & Coulson, 2007; Cohen et al., 2000). Patients report significant psychological and social consequences of their anxiety or phobia; shame and embarrassment are common experiences (Moore et al., 2004) with research indicating that patients often report widespread negative social life
effects (Locker, 2003) and a threat to self-respect and well-being (Abrahamsson et al., 2002a, 2002b).

In addition, major inequalities exist in the dental population with poorer dental attendance and higher rates of disease prevalent in lower socio-economic groups (Watt & Sheiham, 1999). These factors are often associated with dental anxiety (particularly in children). Therefore, those patients who are most in need and excluded from dental care settings at present should continue to be a priority in terms of service provision.

Types of difficulties commonly seen in dental settings

Many experiences have been reported as being feared by patients in a dental setting (Abrahamsson et al., 2002b; Lindsay & Jackson, 1993). For example:

- Fear of specific stimuli: fear of being able to tolerate a procedure or pain associated with dental treatment;
- Gagging and associated fear of catastrophe, e.g. choking, suffocation, inability to breathe;
- General anxiety: feeling that ‘everything about dentistry is awful’;
- Fear of losing control;
- Fear of fainting or having an adverse reaction to the local anaesthetic (LA);
- Fear that anaesthetic will be ineffective;
- Embarrassment about oral health;
- Distrust of dental staff: feeling of helplessness; fear of humiliation (e.g. as a result of past experiences), suspicion or doubt about what dentist says or does;
- Previous trauma including history of sexual and/or physical abuse.
Moreover, Oosterink et al. (2008) have recently investigated reactions to a wide range of stimuli in order to provide an anxiety-provoking hierarchy for use with dentally anxious individuals. Results indicated that invasive stimuli (e.g. surgical procedures) were rated as the most anxiety-provoking and non-invasive stimuli (e.g. the dentist as a person) as least anxiety provoking in Dutch adults.

**Phobias/fears associated with dentistry**

**Choking phobia**

Choking phobia is characterised by fear and avoidance of objects and situations that may lead to choking. During dental treatment patients may be confronted with situations that give rise to extreme fear of suffocating or being choked (e.g. taking dental impressions). Cognitive-behavioural treatments have been of proven efficacy, as well as anxiolytic medication with a remission rate of 58.5 per cent (De Lucas-Taracena & Montañés-Rada, 2006). There is increasing evidence for the effectiveness of Eye Movement Desensitisation and Reprocessing (EMDR), a therapy which has been used to treat a range of distressing experiences including trauma, dental phobia and choking phobia (De Jongh & Ten Broeke, 1998; De Jongh et al., 2002). Furthermore, EMDR (and trauma-focused CBT) have been recommended by NICE in the treatment of PTSD (NICE Guidelines, 2005). CBT has been used successfully with patients who gag and have an associated fear of suffocation or choking (Barsby, 1997; Bassi et al., 2004; Hainsworth et al., 2008). Acupuncture and hypnosis have also been used successfully with patients who gag (Noble, 2002; Hainsworth et al., 2005).

**Blood injury injection fears**

The essential components of blood injury injection fears (BII) include fear and avoidance of exposure to blood, injury, injections and related stimuli. There has been evidence that BII fears exist in the dental context, and overlap with dental phobia/fear. For example, Berggren et al. (1995) found that the 37 per cent of a group of 109 anxious dental patients rated the item ‘hypodermic needles’ as highly anxiety provoking suggesting a significant co-occurrence of dental fear with BII fears. However, other researchers have found less
compelling evidence, for instance, De Jongh et al. (1998) found there were more differences than similarities between dental phobia and BII phobia. They argue this is consistent with the literature on dental anxiety (e.g. Stouthard & Hoogstraten, 1987; De Jongh et al., 1995), showing that anxious dental patients mainly demonstrate fear of specific dental stimuli or procedures other than blood, injuries or injections. They noted that although the level of co-occurrence for both types of phobias was high, dental phobia should be considered as a specific phobia, independent of the BII subtype within DSM-IV (American Psychiatric Association, 1994). Behaviour therapy in the form of in vivo exposure (i.e. graded and prolonged exposure to feared stimuli) is the most effective treatment for specific, uncomplicated phobias (Aartman et al., 1999). A number of studies have reported that exposure therapy effectively reduces fear and disgust, as well as fainting. This treatment is usually effective within five to 10 sessions. Applied muscle tension is a simple technique that may reduce vasovagal reactions, often seen in people with BII fears, by maintaining blood pressure. It has been successfully used to treat patients with blood and injury phobias (Ost et al., 1989).

Fear of dental pain
Fear of dental pain is a state of distress related to pain specifically (Gower, 2004), and is commonly seen within a dental setting (Van Wijk & Hoogstraten, 2003). People who are predisposed to respond fearfully to pain are at an increased risk of ending up in a vicious circle of anxiety, fear of pain, and avoidance of dental treatment. A recent study (Van Wijk & Makkes, 2008) has shown that highly anxious dental patients indicated more pain, of longer duration, than non-anxious patients when receiving an anesthetic injection. Most predictive for the amount of pain felt was the pain felt during a previous injection. They conclude that there should be awareness that anxious dental patients with a negative experience regarding dental injections may feel elevated levels of pain which most likely leads to negative expectations for the future. There is some evidence (Van Wijk & Hoogstraten, 2006) that positive information about pain may make patients less fearful, certainly in the case of endodontic treatment. Providing a sense of control (both through the provision
of information and behavioural strategies such as the use of a stop-
start signal) can help reduce fear of dental pain as can the provision
of a high level of predictability including sensations that might be
experienced. In this respect, carrying out a rehearsal of the actual
steps in a dental procedure (similar to ‘Tell, Show, Do’ commonly
used with children) can be particularly effective and can also help to
identify any specific triggers to a patient’s dental fear. It should be
noted too, however, that there are individual differences in how
individuals cope with anxiety (e.g. some patients prefer to use
distraction) so discussion surrounding this is encouraged.

Assessment of dental anxiety: standard measures
Formal psychometric measures such as dental anxiety questionnaires
have been recommended in helping to reach an accurate assessment
of dental anxiety in patients referred for treatment. Although many
studies have been conducted into their use as outcome measures in
relation to various behavioural interventions, their application in
clinical practice in a survey of UK dental practitioners, was
surprisingly low with only 20 per cent of dentists using adult dental
anxiety assessment questionnaires (Dailey et al., 2001). However,
since 2007, the Modified Dental Anxiety Scale (MDAS; see Appendix
3) has been used as a screen for a number of GDS and CDS dentists
in Scotland, with plans to extend this coverage to the whole of
Scotland. The MDAS comprises five items based on the dental
experience (e.g. ‘If you were about to have your tooth drilled, how
would you feel?’) and is rated on a five-point scale ranging from ‘Not
anxious’ to ‘Extremely anxious’; the cut-off score is 19 (indicating a
strong likelihood of dental phobia). Previous studies have
demonstrated good internal reliability for this measure (e.g. Newton
& Edwards, 2005) and it is used widely in research (e.g. Coulson &
Buchanan, 2008). Other dental anxiety questionnaires are available,
but tend to be of greater length and so are more suitable for
research purposes (Newton & Buck, 2000). Please see Appendix 2
for more information on measures.
Effectiveness of psychological interventions
A systematic (Cochrane) review of psychotherapy for dental anxiety (McGoldrick et al., 2003) assessed the effectiveness of psychological interventions in the treatment of dental anxiety. Although the results of the 11 studies meeting inclusion criteria for this review were inconclusive, behavioural and cognitive behavioural therapies demonstrated a positive outcome in terms of greater attendances at future dental appointments than the control groups. However, the authors state that additional research with larger sample sizes and quality randomised controlled trials are needed to provide further support for the effectiveness of psychological interventions for dental anxiety. There is increasing evidence for the effectiveness of EMDR in the treatment of dental anxiety (De Jongh et al., 2002), and in view of the NICE guidelines for the treatment of PTSD, EMDR should certainly be considered for patients who present with prior traumatic experiences within a dental setting.

Awareness of issues of cultural diversity in dental treatment
Communities consist of diverse ethnic origins, with different religions, languages and cultural values. It is, therefore, important to recognise the many cultural beliefs relating to dental disease and treatment, e.g. in many cultures treatment is only sought if or when symptoms occur as opposed to a more preventative dental care approach. Other beliefs and practices may also be affected or challenged by certain medical/dental procedures, e.g. tooth extraction, loss of blood, taste of the anaesthetic. Language and communication difficulties may necessitate the need for an interpreter, preferably who has experience in working with anxious dental patients and who is sensitive to the types of difficulties that might arise from a cultural perspective. There may be difficulties associated with working practices and hours, thus making services inaccessible to those working in certain businesses.
**Children and adults with disabilities**

Dental care also needs to be considered for children and adults with disabilities and again the potential role of clinical psychologists in this area of special care dentistry. Adults may present with developmental disabilities (e.g. cerebral palsy, autistic spectrum disorder, epilepsy, learning disability), as well as those acquired later in life (e.g. arising from trauma or a chronic condition, for example, dementia). Patients may have other physical disabilities affecting sensory perception (hearing, sight, etc.), as well as attentional disorders, e.g. attention deficit hyperactivity disorder (ADHD) or mental illness (such as psychosis and substance misuse). High levels of fear and anxiety have been described in patients with a disability and this may reflect previous levels of dental care attendance and past experiences (Stiefel, 2002). An integrated health care approach is needed to address the health inequalities often faced by this group of patients and to improve their oral health.
Recommended service specifications

In view of the large percentage of the population who are dentally anxious, there is a lack of appropriate psychological therapies within dental hospitals and general dental practice settings. Clinical Psychologists are well placed to provide effective and evidence-based psychological interventions for dentally anxious adults and children. Psychological care and psychological aspects of health and care, are at the heart of current national priorities for health services (Paxton & D’Netto, 2001). Furthermore, there is a robust evidence-base supporting the use of exposure-based treatments and cognitive behaviour therapy in the treatment of anxiety disorders (DoH, 2001; NICE Guidelines, 2007).

The provision of teaching and training in the psychological assessment and management of dental anxiety, at both undergraduate and postgraduate level, will enable students and staff to manage patients presenting with milder forms of dental anxiety and fear. Indeed, De Jongh et al. (2005) argue that general dental practitioners are able to treat adults with mild forms of dental anxiety effectively, with more specialist interventions (e.g. Clinical Psychologist or Psychiatrist) required for moderate to severe levels of anxiety.

Anxious dental patients are seen across both primary care (general dental practice; salaried dental service) and secondary care (dental hospitals) settings. Accessibility of clinical psychology services to anxious dental patients in the community is less likely, with Community Mental Health Teams (CMHT) accepting referrals for people presenting with more severe and enduring mental health difficulties. The number of other applied psychologists (e.g. counselling, health psychologists and other professionals providing a service to anxious dental patients in community settings) has not been well-documented. However, despite the obvious need for the provision of psychological therapies in this area, the availability of clinical psychologists is clearly lacking.
Assessment and intervention
Clinical Psychologists can provide specialist assessments and interventions in ensuring provision of the most effective treatment approach for dentally anxious patients. Co-morbid psychopathology (e.g. other anxiety and depressive disorders) is often seen in patients experiencing high levels of dental anxiety (Aartmann et al., 1999) and other psychological difficulties can have a negative impact on treatment outcome in patients experiencing a high level of dental anxiety (Kleinhauz et al., 1992). The initial assessment of patients presenting with dental anxiety is, therefore, crucial as dental anxiety may be a manifestation of another anxiety disorder or earlier traumatic experience.

Cognitive Behaviour Therapy (CBT) has been shown to be an effective psychological intervention in the treatment of dental anxiety. In vivo exposure is described as the most effective approach in the treatment of specific phobias (Aartman et al., 1999) and in patients without additional psychopathology (Milgrom & Weinstein, 1993).

Referral criteria
Patients who are too afraid to visit a dental setting can ask to be referred to a Clinical Psychologist by their own GP. General dental practitioners may also be able to advise patients who enquire about such a service. Although treatment can be carried out by the psychologist alone, it is important that access to a dental setting is available, with the recommended treatment approach being carried out in collaboration with a dentist (either in a primary or secondary care setting). Unfortunately, due to current referral criteria, funding constraints, and lack of service provision in dentistry, accessibility of Clinical Psychologists in the UK with expertise in this field is limited.

Teaching/training
Clinical psychologists have an important role to play in teaching on the undergraduate dental curriculum and in contributing to ongoing postgraduate programmes and workshops for qualified dentists. In addition, electives can be offered and supervised for undergraduate students in the management of dental anxiety.
Advisory/consultancy services
Clinical Psychologists are well placed to provide consultancy services in the assessment and management of dental fear. For example, through contributing to seminars for postgraduate vocational trainees in general dental practice and salaried service dentists; through teaching on postgraduate programmes (for example, the MSc in General Dental Practice at Birmingham University and the Bristol University Open Learning Diploma (BUOLD) at Bristol University; see Hill et al., 2008, for a list of postgraduate dental sedation programmes in the UK); also through presentations to dental forums and conferences such as the Dental Sedation Teachers Group. Individual dentists could also be targeted and made aware of non-pharmacological approaches in the management of dental fear and anxiety.

Cosmetic dental care
Patients can be referred by their orthodontist, dentist or GP to establish whether psychological dysfunctions can be attributed to dental malocclusion or other disfigurement. The monitoring of these dysfunctions should continue after orthodontic or surgical treatment.

Other resources
Several recent studies have reported preliminary data on the reasons for, and benefits associated with, dental anxiety/phobia online support group participation. Results have shown that dentally anxious/phobic individuals who accessed an online support group found the experience to be positive and beneficial, and reported that their anxiety was lower since accessing the group (Buchanan & Coulson, 2007; Coulson & Buchanan, 2008). Although preliminary, these results are encouraging and indicate that such groups may help facilitate attendance at a dental surgery. For examples of online groups, please see Appendix 2. A new service at Guy’s Hospital in London has been opened which provides a non-pharmacological treatment approach for patients presenting with dental phobia. Tim Newton, Professor of Psychology as Applied to Dentistry, leads the CBT unit and research programme in the Department of
Sedation and Special Care Dentistry, and has further demonstrated the effectiveness of cognitive behaviour therapy as an alternative to sedation in the treatment of patients who are fearful of dental treatment. Professor Newton is also developing a computer-based programme that it is hoped will eventually be accessible for dentally phobic patients through their primary care trust.
Estimate of staffing levels for clinical psychology services

A survey of 13 Dental Hospitals in the UK, indicated the need for Clinical Psychology service provision for patients presenting with dental phobia and other psychological difficulties (Hainsworth et al., 2006). The dentists who responded commented on the lack of this type of service provision as well as the belief that this should be ‘more readily available’. In view of these findings, and in addition to the high prevalence of dental anxiety (Kelly et al., 2000) and its impact on oral health (Schuller et al., 2003), it is recommended that a minimum requirement should be 1.0 wte Clinical Psychologist based at each UK dental hospital, working alongside a dental practitioner experienced in the management of anxious dental patients. It is likely that the training of staff in psychological approaches to the anxious dental patient will be an important aspect to this service especially as there are interesting changes occurring in complimentary dental health personnel (hygienists, therapists and nurses) who will all need assistance in the provision of their respective services to patients. Alternative funding streams should be considered. For example, Universities and Teaching Hospitals (Foundations, Trusts or Boards) could collaborate together to fund an academic Clinical Psychologist who can provide a part-time clinical service to a Dental Hospital. It is also recommended that clinical psychology services should be accessible for dentists working in general dental practice or salaried services in areas that are remote from a dental hospital. It is difficult to estimate the number of Clinical Psychologists that might be required, but each Strategic Health Authority or Health Board should ensure that the services of a Clinical Psychologist for dentistry are available to their population. At a minimum, sessions should be available within each PCT area. Further surveys to determine the exact ratio of Clinical Psychologists to a given population are indicated.
Who can commission clinical psychology services?

Clinical psychology services may be purchased via contracts with NHS commissioning bodies, e.g. PCTs who may contract strategically across the PCT or more local practice-based commissioning teams or consortia with responsibility for a smaller geographical area. In this way, clinical psychology time is likely to be a component of a larger team contract to provide comprehensive dental services possibly linked to a hospital or other specialist service. However, there is nothing to prevent dental practitioners acting collaboratively across practices to employ Clinical Psychologists via local contracts. The latter may well be negotiated on a sessional basis convenient to all parties.

Delivering psychological interventions to dentally anxious patients

Although it is increasingly being recognised that Clinical Psychologists can deliver effective interventions for patients presenting with dental phobia and other dental health difficulties, many members of the general public, dentists and GPs continue to be unaware of this type of service. It is, therefore, strongly recommended that the potential role of Clinical Psychologists and Departments who can offer this service be publicised both locally and nationally. This could be facilitated through general dental and medical practices, the websites and promotional material of the British Dental Association (www.bda.org/) and the British Dental Health Foundation (www.dentalhealth.org.uk/), the Royal College of Surgeons and the specialist group of general dental surgeons, and the media.
Joint approaches in the treatment of dental anxiety

Wilson and Davies (2001) demonstrated the effectiveness of joint working in their study of dentally anxious adults treated by both a community dental service and specialist psychotherapist service. Their single case report discussed how a dentally phobic adult was able to receive dental treatment and return to general dental care following a brief intervention of just one hour of Cognitive Behaviour Therapy (CBT). Wilson and Davies discuss the potential cost-effectiveness of providing a combination of CBT and community dentistry in the treatment of patients with severe dental phobia and that such a ‘co-operation’ between services could provide an optimal treatment approach for this particular type of phobia. Clinical Psychologists are well placed to provide a comprehensive service to this client group, working with dentists with a special interest and training in the management of dental anxiety.

Potential health gains

For dental fear, successful intervention will ensure:

- less distress in anticipation of dental treatment;
- more frequent attendance for dental care;
- reduced social and health inequalities through increased access to dental care;
- improved oral health and reduced morbidity associated with oral and dental disease;
- improved quality of life;
- reduced use of secondary care services and associated costs.

For dental disfigurement, if psychological assessment has indicated that the disfigurement has contributed to psychological distress in a given patient, successful orthodontic treatment should reduce that distress.
Standards upon which the service is based

1. The service should be provided by Chartered Clinical Psychologists or Chartered Health Psychologists (with practice certificates). Psychologists will need to be registered with the Health Professions Council, which is due to become the statutory regulatory body for Psychologists in 2009.

2. The service should adhere to the professional and ethical guidelines of the British Psychological Society.

3. The confidentiality of clinical information should be ensured.

4. The service should be subjected to regular audit.

5. Clinical psychology services should be easily accessible to patients and dentists in a timely manner.

6. Clinical psychology services should be culturally appropriate and be aware of issues of cultural diversity in dental treatment.

7. Patient information leaflets should be available in different languages and formats. Access to interpreting services should be readily available.

8. Clinical psychology services should be publicised to dentists, patients and GPs.

9. Clinical Psychologists providing the service should be well informed about the nature of dental treatment, dental health and dental practice.

10. Treatment and advisory services should be evidence-based on sound scientific practice, and Clinical Psychologists should be encouraged to draw attention to evidence in professional journals supporting the efficacy of psychological intervention in dentistry.

11. Record-keeping should give evidence, accessible to outside agencies and compiled annually, of the effectiveness of direct intervention.
12. Clinical psychology services should be supported by staff to ensure:

(a) adequate record-keeping and reporting;
(b) efficient liaison with members of the public and referring agencies.
Governance issues

1. The provision of evidence-based interventions following NICE and other clinical practice guidelines and recommendations, e.g. cognitive behavioural therapy, Eye Movement Desensitisation and Reprocessing.

2. Ensure equality of access to services for members of Black and Minority Ethnic communities.

3. Ensure that Continuing Professional Development training needs are met and linked with service needs.

4. Appraising and implementing research.

5. Risk assessment and management.

6. Increasing user involvement.

7. Ensuring professional regulation procedures are understood and employed.

8. Ensuring regular monitoring of performance against standards through supervision and audit.

9. The development of integrated care pathways that incorporate joint working with dental practitioners and across different settings (e.g. primary and secondary care).

10. Regular audit of the service, e.g. measures of the psychological well-being of patients; records of satisfaction provided by clients; measures of dental health; measures of dental anxiety; the time patients for direct intervention spend on the waiting list.


Clinical Psychology in Dentistry

Demographic study (pilot study): Incidence of dental anxiety amongst adults within one ward in the West Midlands (Unpublished paper).


Appendix 1: Quality principles for clinical psychology services

This statement from the Division of Clinical Psychology outlines the responsibilities of psychologists for quality improvement of their practice and services. It applies equally to practitioners working on their own in independent practice and to psychologists employed in service organisations.

1. All psychologists have a responsibility for the quality of their practice and the services they provide. This is inherent in the British Psychological Society’s *Code of Ethics and Conduct*, the legal duty of care of professionals, and in broader ethical principles.

2. In carrying out their responsibility for quality, all psychologists will be involved in a systematic process of examining and improving their practice. Individual practitioners should ensure that at least one other psychologist or professional peer is involved to ensure objectivity.

3. All psychology services should have agreed written principles and processes for quality improvement. These principles and processes and their implementation need to be open to inspection by outside parties.

4. Psychology services in organisations are usually part of a wider network of services. Psychologists have a joint responsibility in organisations, to be part of and contribute to, improving the quality of the services provided by the organisation as a whole.
Appendix 2: Resources and further information

Assessing dental anxiety/pain

Useful reviews of self-report measures

The authors review measures of anxiety and pain used in recent dental studies. In particular, the study identifies the reliability, validity and usefulness of the measures.


This article reviews self-report measurements frequently used to assess dental anxiety in children. The main focus is on their reliability and validity.

Copies of measures
Most widely-used measures are available either in the original article that the author(s) present data on the tool’s psychometric properties (see the reference section of this briefing paper) or can be obtained by contacting the author.

The MDAS is available in a number of different language versions ([http://medicine.st-and.ac.uk/supplemental/humphris/dentalAnxiety.htm](http://medicine.st-and.ac.uk/supplemental/humphris/dentalAnxiety.htm)). For an English version please see Appendix 3. A new set of UK norms for the MDAS with data obtained from a national telephone poll, including percentile tables (the first time these have been provided with a dental anxiety measure) has been submitted to BioMed Central for publication (personal communication by Professor Gerry Humphris December 2008).
Useful websites for information

British Dental Health Foundation
The Foundation is the leading UK-based independent charity working to bring about improved standards of oral health care – both in the UK and around the world. It has a series of information leaflets, including one on dental fear; information on how to find a dentist and a helpline.

www.dentalhealth.org.uk/

British Dental Association site for patients
The independent dental advice site for patients by the British Dental Association with easy to use sections for children, teenagers, adults and seniors.

www.bdasmile.org/

Dental anxiety/phobia support groups
www.dentalfear.com/

This American site is a free resource for patients to come to get useful information about dentistry and fear, facilitated by experts. It includes answers to frequently asked questions, and a number of interviews (including Clinical Psychologists).

Examples of online support groups for individuals to read and post messages are listed below (publication of these websites does not represent an endorsement by the authors or the Division of Clinical Psychology).

www.dentalfearcentral.org/
www.beyondfear.org/
Appendix 3: Modified Dental Anxiety Scale (MDAS; Humphris et al., 1995)

Can you tell us how anxious you get, if at all, with your dental visit?
Please indicate by inserting ‘X’ in the appropriate box.

1. If you went to your Dentist for TREATMENT TOMORROW, how would you feel?
   Not Anxious [ ] Slightly Anxious [ ] Fairly Anxious [ ] Very Anxious [ ] Extremely Anxious [ ]

2. If you were sitting in the WAITING ROOM (waiting for treatment), how would you feel?
   Not Anxious [ ] Slightly Anxious [ ] Fairly Anxious [ ] Very Anxious [ ] Extremely Anxious [ ]

3. If you were about to have a TOOTH DRILLED, how would you feel?
   Not Anxious [ ] Slightly Anxious [ ] Fairly Anxious [ ] Very Anxious [ ] Extremely Anxious [ ]

4. If you were about to have your TEETH SCALED AND POLISHED, how would you feel?
   Not Anxious [ ] Slightly Anxious [ ] Fairly Anxious [ ] Very Anxious [ ] Extremely Anxious [ ]

5. If you were about to have a LOCAL ANAESTHETIC INJECTION in your gum, above an upper back tooth, how would you feel?
   Not Anxious [ ] Slightly Anxious [ ] Fairly Anxious [ ] Very Anxious [ ] Extremely Anxious [ ]
Instructions for scoring (remove this section before copying for use with patients)

The Modified Dental Anxiety Scale. Each item scored as follows:

Not anxious = 1
Slightly anxious = 2
Fairly anxious = 3
Very anxious = 4
Extremely anxious = 5

Total score is a sum of all five items, range 5 to 25: Cut off is 19 or above which indicates a highly dentally anxious patient, possibly dentally phobic.
The British Psychological Society was founded in 1901 and incorporated by Royal Charter in 1965. Our principal object is to promote the advancement and diffusion of a knowledge of psychology pure and applied and especially to promote the efficiency and usefulness of Members of the Society by setting up a high standard of professional education and knowledge.

The Society has more than 46,000 members and:

- has offices in England, Northern Ireland, Scotland and Wales;
- accredits undergraduate programmes at 117 university departments;
- accredits 143 postgraduate programmes at 84 university departments;
- confers Fellowships for distinguished achievements;
- confers Chartered Status on professionally qualified psychologists;
- awards grants to support research and scholarship;
- publishes 11 scientific journals, and also jointly publishes Evidence Based Mental Health with the British Medical Association and the Royal College of Psychiatrists;
- publishes books in partnership with Blackwells;
- publishes The Psychologist each month;
- supports the recruitment of psychologists through the Psychologist Appointments section of The Psychologist, and www.psychapp.co.uk;
- provides a free ‘Research Digest’ by e-mail and at www.bps-research-digest.blogspot.com, primarily aimed at school and university students;
- publishes newsletters for its constituent groups;
- maintains a website (www.bps.org.uk);
- has international links with psychological societies and associations throughout the world;
- provides a service for the news media and the public;
- has an Ethics Committee and provides service to the Professional Conduct Board;
- maintains a Register of nearly 15,000 Chartered Psychologists;
- prepares policy statements and responses to Government consultations;
- holds conferences, workshops, continuing professional development and training events;
- recognises distinguished contributions to psychological science and practice through individual awards and honours.
- operates a Psychological Testing Centre which sets, promotes and maintains standards in testing.

The Society continues to work to enhance:

- recruitment – the target is 50,000 members;
- services to members – by responding to needs;
- public understanding of psychology – addressed by regular media activity and outreach events;
- influence on public policy – through the work of its Policy Support Unit, Boards and Parliamentary Officer;
- membership activities – to fully utilise the strengths and diversity of the Society membership;