RESEARCH INSIGHTS

Stressed and distressed – are dentists burning out?

A survey of stress, burnout and well-being in UK dentists *Br Dent J* 2019; **226:** 40–49; http://dx.doi.org/10.1038/sj.bdj.2019.6

We live in a world where stress is almost unavoidable. However, too much stress can negatively impact individual well-being, leading to burnout and psychological distress. The dental profession is already subject to higher levels of occupational stress than the general population. With introduction of the 2006 NHS general dental practice contract and various regulatory changes, the landscape of the profession has transformed dramatically in recent years. This research aimed to provide a current account of well-being in UK dentists working in all fields of dentistry, as well as identify the key stressors.

Out of 2053 survey responses, 55% reported high job stress, with 44% deeming that this exceeded their ability to cope. Given the detrimental consequences of stress and burnout on mental health, it is not surprising that 68% showed levels of psychological distress. Those who were experiencing burnout fared worse on all well-being measures of life satisfaction, life worthwhileness and happiness. Of particular concern is the high prevalence of suicidal thoughts; nearly 10% of respondents had thought about committing suicide in the last 12 months, a sombre statistic much higher than the general population (5.4%) and the global picture (9.2%).

Consideration of different fields of dentistry found that general dental practitioners, especially those with a high NHS commitment, experienced the highest self-reported stress, burnout and psychological distress. For all fields of dentistry, these levels are markedly elevated compared to previous studies. Primary concerns cited by dentists have changed to stressors of litigation fears, dissatisfied patients and regulatory issues. Although change is inevitable, the authors highlight the chronic problem of increased regulation and rising negligence claims, calling for an improvement of working conditions to reduce stress among dentists.

A completely stress-free profession is neither achievable nor desirable. However, if a feeling of persecution continues to be at large, dentists will



be hard-pressed to deliver patient care to safe, professional standards. These survey results add to the research revealing that overall stress and burnout associated with poorer health are alarmingly high in all dental fields. Individual interventions are inadequate for effective, long-lasting results. Systematic problems in the wider working environment need to be addressed for the sake of both clinicians and patients alike. Indeed, the heart of patient care is centred on improving well-being – perhaps we should extend the same approach to those working in the profession.

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Author Q&A with Vicki Collin, Research Analyst *BDA*



What made you choose to research stress among dentists?

This was part of a wider project examining well-being and stress in dentists, which is a key strategic aim for the BDA. Previous research had highlighted high levels of occupational stress in the profession, and our recent qualitative work highlighted that stress was perceived as a key contributor to experiencing burnout and mental ill health. This research aimed to build on this and examine the extent of the problem, identify different sources of stress and determine how this may relate to burnout and mental well-being. By understanding the key stressors dentists face we can use this to inform the process of making positive changes to dentists' working environments, and promote greater well-being in dentists.

Did the results surprise you?

Although the levels found were high and exceeded previous research, it wasn't too surprising as we know that dentistry can be a very stressful profession especially with how the landscape of dentistry has changed in recent years.

What do you think the next steps should be considering your findings?

The alarmingly high levels of stress and burnout identified in the research should not be ignored. The BDA will be using these results to inform our policy and campaign work to help improve the working lives of dentists. It is apparent that increases in regulation have permeated all aspects of dentistry and fears about litigation were deemed a key concern by dentists. With this in mind, reducing the level of regulatory burden dentists face could lead to reductions in stress. For GDPs working in England and Wales changes to the NHS contract, with a reduced emphasis on UDA targets would also be a positive step forward in alleviating stress. Increasing the support available to dentists who are experiencing high levels of stress or mental ill health is also essential.

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Expert view

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I do not think I have ever been asked to provide a commentary on a more important piece of work than this. It provides a stark picture of a profession facing a crisis. Within the cohort surveyed here there is a sizeable group of healthcare professionals who are experiencing significant distress. By my calculations some 1740 of those surveyed exceeded the standardised cut-off for burn-out; the majority of general dental practitioners report high levels of stress; significantly the sources of stress have changed emphasis from previous research to a perception of increases in regulation, governance and litigation. I believe the root cause lies in the conflict between professional autonomy and external regulation.

Larson^{1,2} has described the characteristics of professions within modern societies as having the following, '(a) professional association, cognitive base, institutionalised training, licensing, work autonomy, colleague control and a code of ethics.' Put simply a professional has

undertaken a course of intellectual learning and training which brings them to a standard which allows them to join an association with a strong ethical code which it enforces through critical self and peer evaluation. The notion that professions are self-governing has been suggested to infer a potential power base which the profession may use to protect itself, as well as to proscribe the practice of the profession to those with the knowledge (cognitive base), training and code of ethics which they share.3 Concerns by those outside the profession about self-regulation and the power that implies lead to increases in regulation, the threat of litigation and governance requirements which serve to undermine the belief in self-regulation and replace the individual's adherence to their personal and professional code of ethics with a requirement to comply with a set of regulations. Is it therefore surprising that this might lead to a sense of exhaustion and lack of personal engagement with the process? Might it be that the practitioner has a sense of learned helplessness, that what happens to them is unrelated to their own behaviour?

Solutions are complex and multifaceted. We need to strike a balance between autonomy and regulation, but the foundation for any solution lies fundamentally in a trust in and respect for the profession of dentistry, as well as trust in and respect for those who seek to govern.

- Larson M S. The Rise of Professionalism: a Sociological Analysis. Berkeley, California: University of California Press, 1978.
- Larson M S. The Rise of Professionalism: Monopolies of Competence and Sheltered Markets. Piscataway, New Jersey: Transaction Press, 2012.
- 3. Johnson T. Professions and Power. London: Heinemann, 1972.



RESEARCH INSIGHTS

'Trending' changes in the provision of indirect fixed prostheses in general dental practice in the UK

Dental practice in the UK in 2015/2016 – Part 3: Aspects of indirect restorations and fixed prosthodontics. *Br Dent J* 2019; **226:** 192–196; http://dx.doi.org/10.1038/sj.bdj.2019.95

This questionnaire-based study's focus is twofold: (i) to identify current practice in the provision of indirect restorations and fixed prostheses within UK GDPs; and (ii) to establish any changes, trends and gaps in treatment methods, techniques and materials.

Core build-up

There has been an increase in the use of lightcured resin composites but amalgam still remains most used. Interestingly, according to the authors, the use of dentine pins continues despite their limitations. In the interests of patients, advice and guidance is required on the best systems to limit tooth structure removal and to ensure retention of pulpal health.

Posts

There is a high usage of preformed posts, which have more advantages, in relation to improved retention and reliability. Fibre post usage has doubled since a 2008 study, however, the use of cast metal posts continues in certain clinical circumstances even though the Nayyar core technique may be more suitable.

 Avoid adverse pulpal reactions as a result of gap formation or subsequent microleakage.





Why do you think amalgam and dentine pins continue to be used, contrary to international trends?

Continued use of amalgam and dentine pins may be primarily attributed to the lack of confidence and knowledge in adhesive bonding coupled possibly with a lack of understanding of the limitations of dentine pins. Amalgam is not technique sensitive and can be placed in a short time. It is associated with minimal, shortterm side effects. Dentine pins are easy to insert and provide a substantial amount of retention. Adhesive cores negate the need for amalgam and dentine pins and currently available materials offer optimum retention via micromechanical/chemical bonding to tooth structure. However, adhesive cores are technically demanding, require tight moisture control and need meticulous handling to:

- Achieve optimal bond to different tooth tissue, that is, enamel and dentine
- Reduce polymerisation shrinkage and degradation of hybrid layer

Did any of the results surprise you?

Despite the large demand on metal-free restorations, 12% of the surveyed clinicians have never prescribed them. The percentage of clinicians who experienced zirconia framework fracture was astonishing. This is one of the rarest failures that can be encountered with zirconia restorations. This may raise concerns regarding the adequacy of tooth preparation, quality of the used zirconia blanks or validity of fabrication process. It was also disappointing to find that almost one in five practitioners used inadequate impression materials for the production of indirect restorations.

What do you think the next steps should be considering your findings?

Regulatory bodies should put in place measures to ensure compliance with the amalgam phase-down plan. It is prudent to assume that it is in the best interest of patients and clinicians to encourage the use of minimally invasive treatment modalities. Simplified guidelines collating data regarding rationale, chemistry, materials and techniques involved in adhesive bonding may be urgently needed. Dental practitioners are highly encouraged to stay updated regarding current research findings and best practices.

Impression materials

The majority still use addition-cured silicone for its accuracy and handling properties rather than polyester impression material which requires automated mixing. There are concerns that suboptimal materials are still being used while there is little usage of digital impressions.

Fixed protheses

Since 2008, precious metal-alloy usage has declined while non-metal alternatives usage has increased. Most clinicians use glass ionomer or resin modified glass ionomer as cement while there has been a significant drop in zinc phosphate usage. Zirconia-based ceramics usage has increased but most GDPs used resin based cements with zirconia restorations, although there is still disagreement about what's best.

Anterior aesthetic restorations

Indirect veneers are used the most but increasingly, direct resin composite veneers are being used. This trend needs to feed into under/postgraduate training according to the authors. The use of 'metal-free' crowns has doubled due to patient demand, while advances in biomaterials has enabled the development of aesthetically pleasant, highstrength zirconium-based ceramics to build metal free crowns.

Conclusion

The authors concluded that there has been an increase in the use of light-cured, resin-based composites as a core build-up material while amalgam remained the preferred option. Fibre post usage has increased, however, dentine pins continue to be used. For crown and bridgework, addition cured silicone impression material is still used widely. Direct resin composite veneers are preferred as an alternative to indirect porcelain veneers. Guidance for practitioners is recommended for best-practice and optimum materials' use for improved patient outcomes.

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