

Stress, burnout, anxiety and depression among dentists

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Dentistry can be a stressful profession. This statement undoubtedly would invoke a great deal of discussion, illustrated with personal experiences, from many practicing dentists. Dentists encounter numerous sources of stress beginning in dental school. On entering clinical

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practice, they can find that the number and variety of stressors often grow. Clinicians experience numerous workplace, financial, practice management and societal issues for which they often are unprepared. For some dentists, these issues may significantly affect their physical health, mental health or both. Clinical disorders such as burnout, anxiety and depression may result. These disorders may have certain negative

effects on dentists' personal relationships, professional relationships, health and well-being. Fortunately, treatment modalities and prevention strategies can help dentists conquer and avoid these disorders. The only limitation is their willingness to take care of themselves.

Stress can be defined as the biological reaction to any adverse internal or external stimulus—physical, mental or emotional—that tends to disturb the organism's homeostasis. If the compensating reactions are inadequate or inappropriate, they may lead to disorders. However, stress is not all bad. Certain stressors inspire people to make a greater effort; for example, a particularly demanding patient may motivate a dentist to work at an exceptionally high level, resulting in the creation of a highly esthetic and natural-looking restoration. Some stressors can stimulate people to grow professionally and personally, learn or improve. Stress is really an essential part of our lives.¹

"Stress" is a term that often is used in a negative

Background. Dentists encounter numerous sources of professional stress, beginning in dental school. This stress can have a negative impact on their personal and professional lives.

Conclusions. Dentists are prone to professional burnout, anxiety disorders and clinical depression, owing to the nature of clinical practice and the personality traits common among those who decide to pursue careers in dentistry. Fortunately, treatment modalities and prevention strategies can help dentists conquer and avoid these disorders.

Practice Implications. To enjoy satisfying professional and personal lives, dentists must be aware of the importance of maintaining good physical and mental health. A large part of effective practice management is understanding the implications of stress.

sense. The same stressors that are stimulating or challenging in a positive sense also may be debilitating if they accumulate too rapidly. It is believed that setting unrealistic goals generates much of the negative stress people feel. These goals may include the need for a particular standard of income or technical perfection. Although setting lofty goals and high standards is a noble theory, how people do this can create a load that often becomes unbearable.¹

How much stress a person can tolerate comfortably varies not only with the accumulative effect of the stressors, but also with such factors as personal health, amount of energy or fatigue, family situation and age. Stress tolerance usually decreases when a person is ill or has not had an adequate amount of rest. During major life changes (birth of a child, serious accident to family member or oneself, divorce, death, geographic relocation), people's ability to tolerate stress also is reduced. Past experience enhances people's ability to manage stress and develop coping skills. After several similar experiences, people normally learn a standard way to cope with a particular stressor.

Our stress tolerance often will vary according to the people who surround us; being surrounded by significant and supportive others can help people resist the effects of stress. Dentists and dental auxiliaries who like each other and work well together can reinforce one another and help raise one another's tolerance of stress.¹

STRESS AND DENTISTRY

Dentists perceive dentistry as being more stressful than other occupations.² A study of more than 3,500 dentists found that 38 percent of those surveyed always or frequently were worried or anxious.³ Moreover, 34 percent of the respondents said that they always or frequently felt physically or emotionally exhausted, and 26 percent said they always or frequently had headaches or backaches. These symptoms often are associated with anxiety and depression. Problems with time management and staying on schedule appeared in several surveys.²⁻⁷ It is interesting to note that anxious patients often create less stress for dentists than running behind schedule. Other stressors that appear in these surveys include coping with difficult or uncooperative patients, the workload, governmental interventions and a constant drive for technical perfection.

When humans are exposed to challenging environments, they exhibit a broad range of physiological and emotional responses that vary in type and strength, according to how well they can cope with the demands. When people evaluate their work environment for its effect on their stress and satisfaction, they need to examine the nature of work demands, the control given to people dealing with the demands, the support they receive from other people in the work environment and the support they receive in terms of resources.⁸

The table lists some of the psychological effects of stress. Many of the psychological signs of stress manifest themselves as physiological responses. The physical disorder reported most frequently by

TABLE

PSYCHOLOGICAL EFFECTS OF STRESSFUL SITUATIONS.*			
STRENGTH OF STRESSORS	DURATION OF STRESSORS		
	Short Term	Medium Term	Long Term
Weak—Low Demands	Bored, restless, lethargic	Torpidity, loss of direction, helplessness	Dismay, disillusionment, depression, sense of failure, alienation
Moderate—Challenging Demands	Aroused, lively, fun	Challenged, enjoyment, satisfaction, self-efficacy	Achievement, feeling of adequacy or competency, high self-esteem
Strong—Excessive Demands	High arousal, tension, excitement	Anger, fear, worry, tiredness, accomplishment (if coping)	Anxiety, depression, exhaustion, loss of self-confidence

* Adapted with permission of the publisher from Payne.⁸

dentists is lower back pain. Other physical manifestations include headaches and intestinal or abdominal problems. Among the psychological disorders associated with stress are anxiety and depression. While in most cases these disorders are not so severe that they require intervention, they may interfere with the dentist's professional performance and quality of life.²

The stress-related problems associated with dentistry arise from the work environment and the personality types of the people who choose the profession. The operatory usually is small, and the dentist's focus is on an even smaller space, the oral cavity. Dentists are required to sit still for much of their workday, making very precise and slow movements with their hands, while their eyes remain focused on a specific spot. Isolation from other dentists also is common. Additionally, a study has shown that dentistry tends to attract people with compulsive personalities, who often have unrealistic expectations and unnecessarily high standards of performance, and who require social approval and status.⁹

In general, as dentists' number of clinical experiences increase, they report a lower overall perception of stress. Only stress resulting from office management remains high, despite the dentists' practice experiences.¹⁰ This may be, in part, a consequence of dental assistants' perception of stressors as being different from those of the dentists with whom they work. Role ambiguity, underuse of skills and low self-esteem are important factors contributing to stress among dental assistants.

Unfortunately, dentists receive relatively little training in the interpersonal dimensions of practice management, so they may lack the skills to remedy these conflicts.¹¹

PROFESSIONAL BURNOUT

One of the possible consequences of chronic occupational stress is professional burnout.¹² Burnout is defined by three coexisting characteristics. First, the person is exhausted mentally or emotionally. Second, the person develops a negative, indifferent or cynical attitude toward patients, clients or co-workers; this is referred to as depersonalization or dehumanization. Finally, there is a tendency for people to feel dissatisfied with their accomplishments and to evaluate themselves negatively. The effects of burnout, although work-related, often will have a negative impact on people's personal relationships and well-being.^{13,14}

Burnout is best described as a gradual erosion of the person. One study showed that certain aspects of dental practice, such as time pressures, patient-related problems and management of auxiliary staff, all were relevant stressors. However, lack of career perspective was the most crucial aspect in the development of burnout.¹² It is interesting to note that health professionals who burn out relatively early in their careers were more likely to stay in their chosen career and adopt a more flexible approach to their work routines. This suggests that burnout does not necessarily have to result in far-reaching negative consequences.¹⁵ Researchers who looked at three types of clinicians found that general dentists and oral surgeons had the highest levels of burnout and that orthodontists had the lowest levels of burnout.^{16,17}

ANXIETY DISORDERS

Anxiety disorders are serious medical illnesses that affect approximately 19 million Americans.¹⁸ Each anxiety disorder has its own distinct features, but all anxiety disorders are bound together by the common theme of excessive, irrational fear and dread. Unlike the relatively mild, brief anxiety caused by a stressful event such as a business presentation, anxiety disorders are chronic and relentless and can grow progressively worse if not treated.¹⁹ Two common and potentially overlapping anxiety disorders are panic dis-

order and generalized anxiety disorder, or GAD.

In panic disorder, feelings of extreme fear and dread strike unexpectedly and repeatedly for no apparent reason, and they are accompanied by intense physical symptoms. These symptoms may include "a pounding heart"; feeling sweaty, weak, faint, dizzy, flushed or chilled; having nausea, chest pain, smothering sensations, or a tingly or numb feeling in the hands; a sense of unreality or a fear of impending doom; or loss of control. Panic attacks, one manifestation of panic disorder, can occur at any time, even during sleep. Some people's lives become so restricted that they avoid normal, everyday activities such as grocery shopping or driving.¹⁹ Panic disorder affects 2.4 million adult Americans and is twice as common in women as in men.¹⁸ Panic disorder often is accompanied by other serious conditions such as depression, drug abuse or alcoholism,^{18,20} and it may lead to a pattern of avoidance of places or situations where panic attacks have occurred.

Panic disorder is one of the more treatable of the anxiety disorders, as, in most cases, patients with panic disorder respond to treatment with medications or carefully targeted psychotherapy.¹⁹

GAD involves much more than the normal amount of anxiety people experience from time to time. It is characterized by chronic exaggerated worry and tension, even though little or nothing has provoked it.^{19,21} "People with GAD seem to be unable to shake their concerns, even though they usually realize that their anxiety is more intense than the situation warrants. Their worries are accompanied by physical symptoms, including fatigue, headaches, muscle tension, muscle aches, difficulty swallowing, trembling, twitching, irritability, sweating and hot flashes. When impairment associated with GAD is mild, people with the disorder may be able to function in social settings or in a job. If the impairment is severe, GAD can be debilitating, making it difficult to carry out ordinary daily activities."¹⁹ GAD affects about 4 million adults in the United States, and it commonly is treated with medications.^{18,22} It rarely occurs alone and often is accompanied by another anxiety disorder, depression or substance abuse.²⁰

If the worry or anxiety becomes debilitating—interfering with work, sleep or engaging in pleasurable activities—it is time to seek treatment. In general, two types of treatment are available for

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anxiety disorders: medication and psychotherapy. The choice of which to use depends on the patient's and physician's preference and on the particular anxiety disorder. The major classes of medications used are antidepressants, such as the new selective serotonin reuptake inhibitors and monoamine oxidase inhibitors, and anti-anxiety medications like benzodiazepines.^{19,23}

DEPRESSION

A leading cause of disability in the United States is major depressive disorder, which affects approximately 18.8 million adults in the United States in a given year.²⁴ While major depression can develop at any age, the average age of onset is in the mid-20s. Depressive disorder often occurs with anxiety disorders and substance abuse.^{18,24-26}

Major depression is an illness that involves the body, mood and thoughts. It affects the way people eat, sleep, feel about themselves and think about things (Box 1^{2,7,24}). According to the National Institute of Mental Health, "A less severe type of depression, dysthymia, involves long term, chronic symptoms that do not disable, but keep one from functioning well or feeling good."²⁴ A depressive disorder is not the same as a passing blue mood, and it is not a sign of personal weakness or a condition that can be willed or wished away. Without treatment, symptoms can last for weeks, months or years. Depressive illnesses often interfere with normal functioning and cause pain not only to those who have the disorder, but also to those who care about them. Much of this pain is unnecessary, as many people do not recognize that depression is a treatable illness.

Often, a combination of genetic, psychological and environmental factors is involved in the onset of depression. Those people who have low self-esteem or are pessimistic in nature can be more prone to depression as well.²⁴ Later episodes of illness typically may be precipitated by only mild stresses or none at all.

The first step in getting appropriate treatment for depression is undergoing a physical examination by a physician.²⁴ If a physical cause for the depression is ruled out, a psychological evaluation should be done. The choice of treatment will depend on the outcome of the evaluations. There

BOX 1

SYMPTOMS ASSOCIATED WITH DEPRESSION.*

- Frequent depressed mood, most of the day, nearly every day
- Diminished interest or pleasure in all or almost all activities
- Significant weight loss or weight gain
- Frequent insomnia or hypersomnia
- Psychomotor agitation or retardation
- Frequent fatigue or loss of energy
- Feelings of worthlessness or inappropriate guilt
- Indecisiveness or decreased ability to think or concentrate
- Recurrent thoughts of death or suicidal ideation

* Sources: Gale,² Gortler and colleagues⁷ and National Institute of Mental Health.²⁴

are a variety of antidepressant medications and psychotherapies that can be used. Some people with milder forms of depression may do well with psychotherapy alone. People with moderate-to-severe depression most often benefit from taking antidepressants. Most do best with combined treatment: medication to gain symptom relief relatively quickly and psychotherapy to learn more effective ways to deal with life's problems, including depression (Box 2¹⁸). Self-help is essential, in that people must exert a strong willingness to participate in activities that will help them manage the illness.

STRESS, DEPRESSION AND ANXIETY IN DENTISTS

Many of the personality traits that characterize a good dentist also can predispose dentists to depression. Studies have indicated that both anxiety and depressive disorders are observed frequently in dentists.^{2,5,9} Despite the fact that dentists have been portrayed as being prone to commit suicide, there is no statistical evidence to support this, and most reliable evidence suggests the opposite.²⁷ Dentists do tend to enjoy better physical health and live longer than people in other occupations, but their mental health has been shown to be poorer.^{28,29} Overall, the medical community has been shown to exhibit a relatively higher level of depression than other professional groups.^{30,31} Complicating this situation is the fact that health care providers can be embarrassed by the thought of seeking professional help.² Certainly, this is an area in which more study is needed.

BOX 2

HOW TO HELP YOURSELF IF YOU ARE DEPRESSED.*

- Set realistic goals.
- Break large tasks into small ones.
- Try to be with other people and to confide in someone.
- Participate in activities that may make you feel better.
- Participate in mild exercise, go to a movie or a ballgame, or participate in religious, social or other activities.
- Expect your mood to improve gradually, not immediately.
- Postpone important decisions until the depression has lifted.
- Practice positive thinking that will replace the negative thinking that is part of the depression.
- Let your family and friends help you.

* Source: Regier and colleagues.¹⁸

BOX 3

STRESS MANAGEMENT COMPONENTS NECESSARY IN DENTAL EDUCATION.*

- Financial and business management
- Developmental psychology (enabling an understanding of the person's fears and needs at different stages of life)
- Dynamics of stress and anxiety (enabling the dentist to understand the patient's fear of dentistry and the dentist's own occupational stress)
- Interpersonal communication skills or how to deal with conflict and confrontation
- Interviewing skills and effective listening skills
- Management of difficult, uncooperative, anxious and aggressive patients
- Stress management procedures (for example, relaxation, hypnosis, desensitization, time management and cognitive coping skills)

* Sources: Moller and Spangenberg,⁵ Atkinson and colleagues³⁴ and Cecchini.³⁵

Many dentists develop stress disorders early in their careers. Two studies conducted in the United Kingdom have shown increasing evidence of stress-related problems in young dentists and dental students.^{32,33} Stressors in the early years of practice come from the combined effects of the number of patients to be seen in a day, finances in general, not knowing what to expect as an associate, the fear of litigation and making mistakes, and the belief that patients can be too demanding. The studies found that a high proportion of dental students and young dentists drank excessively and experimented with illicit drugs. In the final year of training, 67 percent of the students had experienced possible pathological anxiety.

COPING WITH STRESS

The goal of coping with stress is to offset the negative effects of stress by using appropriate coping strategies. The literature suggests that stress management programs should be directed at two levels of practitioners: dental students and dentists. Studies^{5,34-36} have emphasized the importance of stress management training during dental education. Box 3 lists the components that have been suggested as essential for the dental education curriculum. It also has been suggested³⁴ that the dental curriculum be modified so that students have a chance to work outside the dental school in a general practice environment.

Practicing dentists also can benefit from using stress management techniques. Stress management workshops focusing on stress relievers may include deep breathing exercises; progressive effective relaxation of areas of the body; listening to audiotapes of oral instructions on how to relax; meditation; information on the topics of practice and business management, time management, communication and interpersonal skills; and the use of social support systems such as study groups or organized dental meetings.³⁷ These workshops should be structured to help improve dentists' coping skills and equip them to deal more effectively with the stressors intrinsic to the profession. Professional help or counseling services may be necessary if the effects of stress are affecting the person's normal lifestyle.³⁷

Researchers have found that dentists who take on teaching or leadership roles with other professionals in addition to their clinical practice roles may find that it mitigates stress.³⁸ The reasons for this are speculative. The researchers suggest that some reasons may be lessened isolation, increased self-esteem in response to the attention of students, a sense of autonomy over what and when to teach, power over those in a more junior position, added interest in patients as a source of teaching opportunities, and a sense of helping the students' future patients.

The Canadian Dental Association has organized support networks,⁹ and the Massachusetts Dental Association organized one of the first support net-

works when a group of dentists who formerly abused alcohol and drugs formed the Committee on Alcoholism and Chemical Dependency. The California Dental Association established a Hotline Referral Service for its members that provides confidential counseling to dentists who are experiencing problems with alcohol, drug addiction or mental illness. The ADA also offers a variety of resources to help dentists cope with stress.

Physical exercise, such as regular walking or working out at a health club, cannot be underestimated as a stress reliever. Such activities result in burning up the additional supply of adrenaline that results from stress, and they allow the body's functions to return to a more normal state. Physical fitness offers a greater energy reserve, allowing people to become more energetic and more efficient. In addition, exercise helps develop greater self-esteem, self-control and self-discipline.

People's personalities and temperaments have a significant impact on their perceptions of stress.³⁹ It has been observed that people who display high levels of decisiveness, are self-reliant, maintain high self-worth and have developed good problem-solving and information-seeking skills cope better under stressful conditions. Those who have strong, positive self-images and know how to relax so as to reduce mental and emotional pressures also cope better with stress, as do people who are open to being helped by others.

However, not all stress-producing situations in the dental practice can be eliminated. Stressors such as failing to meet personal expectations, seeing more patients for financial reasons, working quickly to see as many patients as possible for financial reasons, earning enough money to meet lifestyle needs and being perceived as an inflictor of pain are all stress-producing situations. These issues generally require a reassessment of one's own attitudes and expectations in the light of whether they are realistic, achievable or rational.

CONCLUSION

Dentists often perceive dentistry as being stressful. The sources of stress arise from the work environment (for example, workplace, financial and practice management issues) and from the personality types of the people who choose the



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profession. Stress can elicit varying physiological and psychological effects on a person.

With professional burnout, people become emotionally and mentally exhausted; develop a negative, indifferent or cynical attitude toward patients, clients

or co-workers; and evaluate themselves negatively. Two common anxiety disorders are panic disorder and GAD. Both disorders can be debilitating, as they elicit excessive, irrational fear and dread. The treatment options available are medications (for example, anti-anxiety medications and anti-depressants) and psychotherapy. Depression affects the body, mood and thoughts. Its onset often involves a combination of genetic, psychological and environmental factors. However, episodes of depression may be precipitated by mild stresses.

Some stress is inherent in dental practice, requiring that dentists learn coping strategies to minimize the effects of stress. Stress management should be targeted to dental students and practicing dentists. The dental educational curriculum should be modified to include business management, stress management and communication skills. Some dental associations offer stress management workshops, professional help, counseling services and support networks. In addition, dentists should assess their own attitudes and expectations to determine if they are realistic, achievable or rational. Finally, dentists must realize that help is readily available if the effects of stress become overwhelming. ■

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