Stress and burnout in dentistry

Recognising occupational demands, interpreting evidence and improving the conditions of care

Practical Class 11 · Social Medicine with Medical Ethics · Dental Medicine (English) · 2026/2027

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When a demanding day becomes a persistent pattern

A fictional clinical day

A junior dentist runs behind schedule, skips a break, manages an anxious patient and stays late to finish records. Over several weeks, sleep becomes poor, work feels increasingly draining and patients begin to feel like obstacles.

Which parts of the problem arise from the person, the team and the way work is organised? What would you need to know before using the term **burnout**?

Today's aim is to identify demands and resources, distinguish a model from a diagnosis, read prevalence estimates critically and design a practical response.

Persistent distress deserves attention; its label should follow assessment, not replace it.

Learning outcomes and class resources

1. Map occupational and educational stressors in dentistry.
2. Explain the Maslach dimensions and the occupational scope of ICD-11 QD85.
3. Compare the MBI, CBI and BAT without treating their scores as interchangeable diagnoses.
4. Interpret prevalence in dentists and dental students with the population, definition and uncertainty attached.
5. Choose prevention at individual, team and organisational levels, and identify when professional assessment is needed.
6. Complete a private reflection and propose an evaluated improvement to a fictional clinic.

15-minute reading · student tasks. Personal reflections are not collected or graded.

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1. **Stressors and resources in dental work**
2. Burnout: definitions, dimensions and assessment
3. How common is burnout, and what does a percentage mean?
4. Prevention: change both work and support
5. Private reflection, cases and an improvement plan

A stressor, a response and an outcome are different things

Concept	Meaning	Dental example
Stressor or demand	A condition requiring sustained effort or adaptation.	An overloaded appointment list and repeated interruptions.
Stress response	How a person appraises and responds to the demand.	Tension, worry or reduced concentration during a difficult session.
Longer-term outcome	What develops when demands and recovery remain poorly matched.	Persistent exhaustion, disengagement or illness; further assessment may be needed.

A busy day is not sufficient to establish burnout. Acute stress may resolve with recovery. Chronic strain is not measured reliably by one symptom or a presumed cortisol pattern.

Maslach et al., 2001, doi:10.1146/annurev.psych.52.1.397 · Demerouti et al., 2001, doi:10.1037/0021-9010.86.3.499

Dental stressors operate at several levels

Source	Examples	A possible resource
Physical environment	Static posture, visual concentration, noise, repetitive precision work.	Adjustable equipment, assistance and recovery opportunities.
Clinical demands	Time pressure, uncertainty, complex procedures, emergencies and fear of error.	Realistic scheduling, competence, supervision and referral routes.
Patient interaction	Anxiety, pain, anger, expectations and financial disagreements.	Communication skills, clear plans and supported escalation.
Team and organisation	Understaffing, conflicting instructions, poor feedback and unfair treatment.	Role clarity, respectful leadership and psychological safety.
Business and regulation	Income uncertainty, debt, administration, complaints and sales targets.	Transparent contracts, protected clinical judgment and administrative support.

This is a practical map of plausible demands, not a ranking of universally established causes. The same condition can be experienced differently across settings.

FDI, Mental health and well-being, doi:10.1016/j.identj.2023.10.005 · Dental ethics code, Arts 2–3

Dental students face an additional set of demands

Learning and assessment

Examinations, clinical requirements, unfamiliar procedures, assessment consistency and relationships with supervisors. Patient cancellations can affect both learning and progress through requirements.

Life around the course

Living costs, language, transport, isolation, caring responsibilities and the transition to clinical responsibility can reduce time and support for recovery. Avoid assuming that every student has the same resources.

Alzahem et al.'s review identified examinations, clinical requirements and supervisors as major reported stress sources. Most such associations do not establish causality or a student's individual risk.

Alzahem et al., 2011, doi:10.1111/j.1600-0579.2010.00640.x

Emotional labour and moral distress need different responses

Emotional labour

Managing one's expression and interaction while supporting an anxious, angry or distressed patient. Professional calm requires effort, especially when difficult encounters are repeated without time or support.

Moral distress

Distress when a person believes an action is ethically required but feels constrained from taking it. Example: pressure to recommend unnecessary procedures to meet a financial target.

Respond to communication demands with skills, assistance and workable schedules. Respond to an unethical constraint by addressing the constraint and protecting clinical independence. Relaxation alone cannot resolve a conflict between a sales target and patient welfare.

FDI ethics policy, doi:10.1016/j.identj.2024.12.006 · Dental ethics code, Arts 3(2), 15(5)

The job demands–resources model guides intervention

Demands consume effort

Workload, emotional demands and interruptions can contribute to exhaustion when effort is sustained without adequate recovery.

Resources support work

Autonomy, useful feedback, assistance, learning opportunities and a fair team climate help people meet demands and remain engaged.

Clinic problem	Match the response to the mechanism
Repeated overruns	Review appointment length and emergency capacity; add appropriate assistance.
Uncertain limits of competence	Provide a named supervisor and a usable referral pathway.
Conflicting targets	Agree priorities and protect clinical judgment.

This is an explanatory model, not an equation or a diagnostic test. Improving one resource does not guarantee that excessive demands become harmless.

Demerouti et al., 2001, doi:10.1037/0021-9010.86.3.499

Map a demand before proposing a coping strategy

Brief paired exercise

A student is repeatedly late finishing a clinical session. List one clinical, one organisational and one personal explanation. For each, name a fact you would check and one potentially useful resource.

Possible explanation	Fact to check	Matched response
Procedure is beyond current skill	Supervision and case complexity	Case review and closer supervision
Instruments arrive late	Availability and turnaround	Change supply and preparation arrangements
Travel prevents adequate rest	Discuss privately, without assumptions	Explore scheduling and support options

The same observed problem can require different actions. Ask before assigning blame.

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ICD-11 QD85 describes an occupational phenomenon

The WHO places **burn-out (QD85)** among factors influencing health status or contact with health services. It describes a response to persistent workplace stress that has been inadequately managed.

Exhaustion

Energy feels depleted.

Distance or cynicism

Increasing detachment or negativity towards work.

Reduced efficacy

A diminished sense of professional effectiveness.

WHO does not classify burnout as a medical condition. Its ICD-11 description is specific to occupational experience.

Research also studies **academic burnout**. A student questionnaire score does not automatically establish the occupational phenomenon described by QD85.

WHO ICD-11, QD85; WHO, Burn-out an occupational phenomenon (2019)

The Maslach model is multidimensional

Dimension	Meaning	Fictional dental example
Emotional exhaustion	Feeling emotionally depleted by work.	"I have nothing left at the end of the session."
Depersonalisation / cynicism	A detached or negative response to patients or work; terminology depends on the instrument.	Describing every patient as a nuisance.
Reduced personal accomplishment / efficacy	A reduced sense of successful, effective work.	Discounting competent work and feeling ineffective.

MBI-HSS uses emotional exhaustion, depersonalisation and personal accomplishment; general and student forms use related but differently named dimensions. "Depersonalisation" here does not mean a dissociative diagnosis.

Maslach et al., 2001, doi:10.1146/annurev.psych.52.1.397 · Mind Garden, MBI documentation

Burnout does not explain every symptom

Patterns to clarify

How long has the difficulty persisted? Is it tied to work or present across life? What is happening to sleep, mood, function, substance use and ability to practise safely? What physical or mental health conditions might also need assessment?

Assessment matters

Depression, anxiety, sleep disorders, physical illness and burnout-related distress can overlap. Persistent low mood, loss of interest or major functional impairment should prompt professional assessment rather than a questionnaire label.

Burnout, depression, moral distress and ordinary fatigue are not synonyms. Coexistence is possible, and a workplace explanation does not exclude a treatable health condition. If immediate safety is in doubt, obtain urgent help and arrange safe clinical cover.

WHO mental health at work guidelines, 2022 · Maslach & Leiter, 2016, doi:10.1002/wps.20311

The MBI measures dimensions; it is not a diagnostic verdict

The **Maslach Burnout Inventory** is widely used, with different forms for different settings. The Human Services Survey has **22 items**; the General Survey has **16**. Use the appropriate version and authorised scoring instructions.

Interpretation

Report each relevant scale. Greater exhaustion and depersonalisation/cynicism indicate more difficulty; lower accomplishment/efficacy points in the opposite direction. Do not casually sum everything into a "burnout total".

Limits and permissions

The MBI is proprietary. Its authors discourage treating arbitrary high/medium/low cutoffs as diagnostic boundaries. A score can support research or discussion, but cannot by itself establish illness or fitness to practise.

MBI items are not reproduced in this class. Student and professional scores require their own instrument, context and validation.

Mind Garden, MBI product documentation and authors' message (2019)

CBI and BAT use different conceptions of burnout

Tool	What it measures	Use with care
CBI	Personal, work-related and client-related exhaustion; 19 items across three scales.	Publicly available from NFA. Score each scale according to the original instructions. It does not reproduce the Maslach dimensions.
BAT	Exhaustion, mental distance, cognitive impairment and emotional impairment as core dimensions.	Non-proprietary; use the unmodified questionnaire and the relevant manual, language and validation.

Choose a measure to answer a defined question. Different instruments, populations and cutoffs cannot be treated as one interchangeable prevalence measure.

Neither instrument turns an anonymous class activity into a clinical assessment. Do not rename an improvised checklist "CBI" or "MBI".

CBI: doi:10.1080/02678370500297720 · BAT: doi:10.3390/ijerph17249495

A scoring exercise can teach method without diagnosing anyone

The original CBI converts responses to a **0–100** scale and averages items **within each scale**. Its personal scale has six items; the work scale has seven, including one reverse-scored item; the client scale has six.

Fictional arithmetic only

Six already-coded personal-scale responses are 50, 75, 25, 50, 75 and 25. Their sum is 300; the mean is **300 / 6 = 50**. This is a scale score, not "50% burned out" and not a clinical diagnosis.

For real administration use the NFA form, response categories, reverse scoring and missing-response rules. Student adaptations need their own validation. This exercise supplies no personal results or universal severity categories.

NFA, original English CBI scoring form · Kristensen et al., 2005, doi:10.1080/02678370500297720

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Dentist prevalence depends on the study definition

Long et al., systematic review and meta-analysis (2023)

15 studies; 6,038 participants. The pooled estimate of professional burnout among dentists was **13% (95% CI 6–23%)**. The search ended on **28 October 2021**.

The estimate summarises the included studies under their methods and settings. It is not a current national estimate for Bulgaria.

Before transferring it to a clinic, inspect sampling, response rates, instruments and the operational definition. A publication year does not identify when the participants were surveyed.

A pooled proportion is meaningful only with its population, definition, period and uncertainty attached.

Long et al., Psychol Health Med 2023, doi:10.1080/13548506.2023.2208364

Student prevalence also hides major differences between studies

Mak et al., systematic review and meta-analysis (2026)

The review included **27 MBI-based studies**. The overall prevalence synthesis used **12 studies and 8,141 students**: **26.5% (95% CI 16.9–36.0%)**; **I^2 = 98.2%**.

Definitions differed: some studies used all three dimensions, others fewer dimensions or different thresholds. The search covered publications from January 2000 to August 2025.

The pooled confidence interval concerns uncertainty around the estimated average, not the likely range in every dental school. Extreme heterogeneity limits transport to one class or country. This is academic/educational burnout research, not a count of ICD-11 clinical diagnoses.

Mak et al., BMC Med Educ 2026;26:522, doi:10.1186/s12909-026-08891-8

The two pooled estimates are not a career trajectory

	Dentist review	Student review
Estimate	13% (6–23%)	26.5% (16.9–36.0%)
Population	Dentists in included studies	Dental students in included studies
What differs	Settings, sampling, instruments, definitions and study periods	Educational settings and varied MBI forms and criteria

An invalid inference

"Burnout halves after graduation." These reviews did not follow the same people from dental school into practice and cannot estimate that change.

Likewise, one high subscale is not automatically equivalent to a definition requiring three high-risk dimensions. Separate the measured dimension from the composite outcome.

Long: doi:10.1080/13548506.2023.2208364 · Mak: doi:10.1186/s12909-026-08891-8

Audit a prevalence headline before repeating it

Hypothetical report

"Half of all dentists have burnout." A voluntary survey invited 1,000 dentists, 200 responded and 100 respondents exceeded a chosen exhaustion cutoff.

1. What is the response rate? What is the observed respondent proportion?
2. Which outcome was actually measured?
3. Why can we not infer the proportion in all 1,000 invitees or all dentists?

Response rate: **200 / 1,000 = 20%**. Respondent proportion above the exhaustion cutoff: **100 / 200 = 50%**. Non-response and self-selection can bias the result in either direction. No composite burnout definition or population representativeness has been established.

Do not turn one subscale, one sample and an unknown response mechanism into a universal diagnosis.

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Match prevention to the level of the problem

Level	Examples to consider	Responsibility
Individual	Recovery routines, boundaries, communication skills and seeking health care when needed.	The person, with access to practical support.
Team	Brief planning, supervision, respectful feedback, shared cover and safe escalation.	Team members and clinical leaders.
Organisation	Staffing, workload, autonomy, fair assessment, anti-bullying processes and workable referral systems.	Employers, educators and service leaders.
Professional system	Accessible support, fair contracts and professional standards protecting clinical judgment.	Professional bodies and institutions.

These are candidate actions to adapt and evaluate. Individual support should accompany action on work conditions. A compulsory "wellness" session added to an overloaded day may itself add demand.

WHO mental health at work guidelines, 2022 · FDI, doi:10.1016/j.identj.2023.10.005

Individual strategies need time and realistic access

Recovery and boundaries

Plan regular opportunities to eat, rest, move and recover. Discuss after-hours contact and clinical cover. Identify what is feasible within the person's financial, family and work circumstances.

Skills and support

Use communication training, appropriate mentoring, case discussion and confidential professional support. Seek clinical assessment for persistent symptoms or impaired function.

Brief relaxation or mindfulness may be useful to some people as adjuncts. Present them as options rather than obligations or proof of resilience. Do not prescribe a universal recovery timetable or promise that a single technique prevents burnout.

WHO mental health at work guidelines, 2022 · Deng et al., 2026, doi:10.3389/fmed.2026.1945728

Clinic design can reduce preventable demands

Observed problem	A concrete organisational response
Routine overbooking	Review real procedure durations; reserve contingency capacity and protect breaks.
Repeated interruptions	Agree who handles messages and which problems interrupt treatment.
Fear of asking for help	Name an accessible supervisor and reward appropriate escalation.
Unfair targets or feedback	Set clinically defensible goals and transparent, respectful review processes.
Pain or fatigue during procedures	Review ergonomics, equipment and assistance with occupational-health input where appropriate.

Involve the staff who do the work. Check that a change does not transfer overload to assistants or restrict patient access. No fixed percentage reduction in burnout is assumed.

WHO mental health at work guidelines, 2022 · Dental ethics code, Arts 2(3), 3(2)

Dental schools can act on the learning environment

Reduce avoidable educational pressure

Coordinate assessment loads; make requirements and feedback clear; match cases to competence; provide supervision and a fair way to address patient cancellations and delays.

Make help usable

Offer confidential support, accessible referral and clear routes for reporting bullying or unsafe conditions. Separate requests for support from assumptions about ability or motivation.

A support programme should be assessed for access, acceptability, harms and sustained outcomes. Attendance alone is not evidence of improved well-being. These are proposals for evaluation, not claims about services already available at this university.

Alzahem et al., doi:10.1111/j.1600-0579.2010.00640.x · Deng et al., doi:10.3389/fmed.2026.1945728

The intervention evidence supports cautious conclusions

A 2026 systematic review of dental and oral-health student interventions included **14 studies**. Designs and approaches varied, and the certainty of evidence for the outcomes assessed was **very low**.

What can be said

Some programmes reported short-term improvements. Confidential support and brief skills programmes can be considered and evaluated within a broader response.

What cannot be promised

A durable preventive effect of one programme, a guaranteed benefit for all students or a specific recovery period. Uncontrolled before–after improvement may reflect other changes.

Do not replace changes to institutional sources of stress with an individual-only programme. The uncertainty is a reason to evaluate carefully, not to ignore distress.

Deng et al., Front Med 2026, doi:10.3389/fmed.2026.1945728

A colleague needs concern, evidence and a safe pathway

Step	Action
Observe	Describe concrete behaviour and its effect: missed checks, confusion, unsafe shortcuts or repeated distress.
Speak privately	Ask how the colleague is doing and what support would help. Avoid a public label or a speculative diagnosis.
Protect patients	If practice is unsafe, stop or hand over the relevant work and involve the responsible clinical lead through the proper route.
Support and review	Facilitate confidential assessment and a workable adjustment or return-to-work plan. Share only information necessary for safety and lawful processes.

The dental code places patient safety above personal or professional loyalty (Art. 12). A mental health concern does not automatically mean that a person is unsafe to practise.

Dental ethics code, Art. 12 · WHO mental health at work guidelines, 2022

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Private self-assessment: reflect without assigning a diagnosis

This is an original educational reflection, not the MBI, CBI or BAT. You may use a fictional person instead. Do not submit your answers or disclose personal experiences.

For your recent experience, consider privately:

1. Which situations drain your energy, and when do you recover?
2. Have you noticed distance from patients or learning, or a reduced sense of effectiveness?
3. Which demands could change, and which resources are missing?
4. Is there a symptom or difficulty for which you would seek professional advice?
5. What one manageable action and one request for support could you make?

Write a personal next step for yourself. Discuss only general patterns or the fictional alternative with the group.

Case 1 · A student under pressure to complete requirements

Fictional case

Mira is anxious about clinical requirements after several patient cancellations. She stays late, sleeps poorly and avoids asking a supervisor for help after a humiliating remark. She says she is “not cut out for dentistry”.

1. Identify demands, missing resources and facts still needed.
2. Distinguish possible academic burnout from a clinical diagnosis.
3. Propose an immediate conversation, one educational adjustment and one support route.
4. Explain how you would protect privacy and check whether the response helps.

Discuss the fictional case. No participant needs to disclose symptoms or questionnaire scores.

Case 2 · An exhausted associate and a safety concern

Fictional case

Daniel reports persistent exhaustion. The practice expects a high daily procedure count and frequently shortens breaks. Today he nearly treats the wrong tooth; the check catches the error before treatment begins. He asks a colleague not to mention it.

1. What makes this a near miss? What immediate safety actions are needed?
2. What should be documented and reviewed through the clinic's safety process?
3. Which demands and organisational responsibilities need attention?
4. How can the team support Daniel without using "burnout" as either an excuse or an accusation?

Protect the patient, review the event, arrange appropriate supervision or cover, and offer confidential assessment. One incident does not diagnose burnout or establish its cause.

Turn a proposed solution into an evaluated change

Small-group design task

A fictional clinic has persistent overruns and missed breaks. Design one change that reduces demand and one that strengthens a resource. State the owner, when to review it and what might go wrong.

Plan element	Example to adapt
Change and owner	Clinical lead reviews appointment lengths with dentists and assistants.
Process measure	Proportion of sessions with a protected break.
Outcome	Overtime per session and anonymous team-reported workload over time.
Balancing measure	Waiting time, access to urgent care and workload transferred to assistants.
Review	Compare with baseline, discuss unintended effects and revise.

This is a service-improvement exercise. Confidential well-being data need appropriate governance; do not collect classmates' personal results.

A complete response connects definition, evidence and action

Exit questions

What are the three WHO dimensions? Why is a score not a diagnosis? Why can two prevalence estimates differ? Name one individual support and one organisational change for the same dental problem.

A useful next step

Describe a demand, identify a missing resource, choose an action within the right person's authority and specify how its effect and unintended consequences will be reviewed.

Protecting the conditions in which dentists learn and work is part of protecting patients and professional care.

Sources for further reading

- WHO. ICD-11 QD85; **Guidelines on mental health at work** (2022). WHO guideline. No DOI.
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Thank you for your attention!