

# Alleviating burnout in medical school

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## Impact paragraph

In this paragraph, the thesis' relevance and influence on stakeholders and broader society are discussed.

### Relevance

This thesis' findings may be relevant to several stakeholders in non-Western Asian medical school communities, such as undergraduate medical students, postgraduate medical students, health professionals, faculty members, and program directors. Burnout occurs in the whole continuum of medical education and can affect everybody involved in these learning environments. Burnout was observed among postgraduate and undergraduate medical students, with negative consequences for their well-being such as depression and quality of life. To understand this problem, related factors that could contribute to burnout were explored. In this thesis, factors relevant to postgraduate medical students' burnout included unnecessary or duplicated workloads; time schedule arrangements to avoid extension of regular duty hours; the clarity of role expectations; work allocation; perceptions of teacher roles; the institution of a faculty development program; and improvement of the facilities and infrastructure, such as accommodation. These factors are linked to the roles and tasks of a program director, teachers, and program managers and staffs, who design, deliver, manage and/or facilitate the curriculum because they are the key individuals who take responsibility and help alleviate these issues.

Among undergraduate medical students, students reported key features that could be used to promote collegiality and the sense of belonging and engagement: relevant tasks and learning activities; safety in the learning environment; peer interaction; certain program design factors; and the dynamics of collegiality while progressing through medical school, as well as personal stances and social skills. From faculty members' perspectives, the critical features to promote medical students' sense of belonging, engagement, and collegiality in relation to burnout were: creating safe learning environments; promoting teacher-student or student-student relationships by faculty members; and program design factors that promote medical students' sense of belonging. Thus, these findings are relevant to program directors, educational leaders, program managers and staffs, teachers, as well as other health professionals in the learning environment and residents.

In addition, this thesis addressed the mistreatment problems among undergraduate medical students, with workplace learning-related bullying being the most common category and teachers being the most common source of mistreatment. Several negative consequences, including burnout, depression risk, and unprofessionalism, were related to mistreatment. Therefore, it is relevant for faculty members and educational leaders to find a solution and a proper prevention, screening, and reporting system for mistreatment in order to eliminate mistreatment in medical school.

## Stakeholders that can benefit and are involved in this thesis findings

### *Medical students*

This thesis raised awareness about burnout among postgraduate and undergraduate medical trainees and its consequences. Undergraduate medical students should be able to detect their own symptoms of burnout early and seek help if needed. As a finding in this thesis, promoting a sense of belonging, collegiality, and engagement was related to burnout. Medical students needed support and guidance from medical teachers and staffs to promote their sense of belonging, collegiality, and engagement in the learning community. Social skills, social stance, and the dynamics of the peer relationship reported in this thesis could help medical students understand how to promote collegiality in medical school. Also, mistreatment and the reporting system were addressed as problems for which interventions were needed. They should help in finding suitable interventions, like a system for reporting mistreatment that works for them in terms of being easy to report or contributing to decreasing incidence.

### *Medical teachers*

Several factors were reported to contribute to or relieve burnout problems related to faculty members and are reported in this thesis, such as creating supportive teachers' roles and tasks, a safe learning environment, respecting students, enhancing the teacher-student or student-student relationship, making students feel valuable, and including students in the patient care team, to benefit both students' learning and well-being. In addition, faculty development programs will need to address this issue, as well as the development of a safe and clear mistreatment reporting system with systematic management.

### *Other health professionals*

Other health professionals, such as nurses and residents, were identified in this thesis as crucial individuals in promoting medical students' sense of belonging, collegiality, engagement, and mistreatment. It will be helpful to inform and raise awareness of their roles and impact on medical students' learning and well-being. This may change their mindset about medical education although one needs to be mindful of the prioritization of busy daily health care services. Also, residents are essential partners for engaging students in the patient care team and for promoting a friendly atmosphere contributing to student collegiality. Thus, residents could be considered for inclusion in the future development of a resident-as-teacher program.

### *Program directors, administrative staff, and leaders*

Resident Educational leaders should thus be aware of the impact of curriculum design and system regarding its support of students' well-being, and could establish policies

and guidelines in this regard as well as provide funding and resources for its implementation or change.

### *Medical education researchers*

This thesis provided four tools in Thai, namely: 1) The Maslach Burnout Inventory-Student Survey (the MBI-SS), to measure burnout among undergraduate medical students. 2) The Postgraduate Hospital Educational Environment Measure (PHEEM) 3) The Basic Psychological Need Satisfaction at Work Scale (BPNSS-21) to measure important needs of medical students 4) the Utrecht Work Engagement Scale—Student Version (UWESS-9) to assess medical students' engagement. This thesis provides evidence that all the questionnaires fit the context of the Thai medical student. Therefore, these are useful for Thai medical education researchers to further investigate burnout, learning environment, basic psychological need satisfaction, and engagement in Thai medical students' context.

Furthermore, we identified the following potential future research topics in this thesis:

- Teaching styles and a safe learning climate in a non-Western context
- Associated factors contributing to depression in medical students
- Faculty development programs to create good teachers' characteristics
- Residents' key roles in promoting medical students' sense of belonging, engagement, and collegiality, and the resident-as-teacher program
- Mentoring systems, extra-curricular activities, and curriculum redesign related to burnout
- A system for reporting and managing mistreatment
- other stakeholders that might influence students' sense of belonging, engagement, and collegiality, such as other health professions or residents.

### *Society*

As burnout started as early as in medical school, if the problem wasn't solved in medical school, the burnout rate among physicians could increase. Thus, the consequences of burnout could rise in the future, with negative consequences for the physician, society and the healthcare system, such as physician mental health and health problems, patient safety, medical errors, unprofessional behavior by physicians, and physician resignation rates. Therefore, alleviating burnout through prevention and capturing this problem as early as possible in medical schools is important, and we recommend that all stakeholders get involved by promoting a sense of belonging, collegiality, and engagement.

## Access to findings of this thesis

The target groups mentioned above can access three papers from this thesis that are available as published manuscripts (Chapters 2, 3 and 4); all are open access.

- *Chapter 2: BMC Medical Education 2019;19(1):245*
- *Chapter 3: International Journal of Medical Education. 2019;10:223-229*
- *Chapter 4: BMC Medical Education 2022;22(1):327*

Chapters 5 and 6 are still under peer review.

Some of these target groups have already seen the content in this thesis at national and international conferences — the annual conference of the Association for Medical Education in Europe (AMEE).

- *Chapter 2: Poster round, AMEE 2017*
- *Chapter 3: Poster round, AMEE 2018*
- *Chapter 4: Short Communications: AMEE 2020 (virtual)*
- *Chapter 5: Short communication: AMEE 2022*
- *Chapter 6: Short communication: AMEE 2022 (virtual)*

After the defense, this thesis will be made publicly available online.