Re-envisioning Exams: NBME's Effort on Wellness (RENEW) project

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ABSTRACT

Background: Burnout starts in medical school and persists through all levels of training. In the U.S. and elsewhere, it may be more the rule than the exception and affects physician health and therefore patient care. The solutions to date focus on coping with rigors rather than affecting systematic change and predictive models of burnout have yet to be fully developed, particularly related to high-stakes medical school examinations. Despite its explicitly-stated purpose as a minimum competency licensure examination, the 3-digit score for the USMLE clinical knowledge examinations, particularly step I are widely-utilized by graduate medical education programs in the U.S. to screen and rank applicants for residency positions, a reported significant stressor for medical students.

Summary of Work: The NBME seeks to understand the role high-stakes exams such as United States Licensing Examination (USMLE) play in affecting medical student wellness. Alongside other U.S. healthcare professional organizations that are also currently addressing this issue, we hope to contribute to a better functioning healthcare system. We convened a summit of leaders in the field and from the house of medicine to develop and execute a research agenda, whose preliminary results will be presented.

Summary of Results: From a deliberative process, U.S. experts prioritized four of nine research questions: What is the relationship between student well-being and examination performance? How do self-care activities relate to stress and examination performance? What contributes to stress among medical students, and what strategies do students use to mitigate stress? What is relationship between perceptions of USMLE's purpose and meaning students attach to USMLE and student wellness Study design, sources of data and subsequent findings will be presented.

Discussion and Conclusions: From this research and expert engagement, we have developed an action plan that we believe will inform policy, research and development. Preliminary research results will be presented.

Take-home Messages: By partnering with collaborating U.S. organizations and expert faculty to conduct research and produce meaningful scholarship, we have begun to enlist support for actionable interventions that might promote wellness amongst learners and trainees in the context of high stakes exams in the United States.
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Academic Environment and Mindfulness Interventions predict Wellness among Medical Students

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ABSTRACT

Background: Medical education and practice may lead to unhealthy behaviors and attitudes that may result in poor academic performance and early and future professional burnout among medical students and practitioners. Touro University College of Osteopathic Medicine (TUCOM) developed the Wellness, Academic Achievement, Resilience and Mindfulness program (WARM) to improve student wellness and academic performance and address the current medical burnout trends.

Summary of Work: WARM includes four assessment instruments; namely: 1) Health-Promoting Lifestyle Profile II; 2) Johns Hopkins Learning Environment Scale; 3) Perceived Stress Scale; and 4) Five Facet Mindfulness Questionnaire. Data were collected anonymously during 2016 and 2017 using surveys implemented in Qualtrics among first and second year medical students. Data analyses were conducted using Stata V15 using the Mann-Whitney test to assess differences in WARM scores. Also, we conducted multivariable linear regression to assess Stress, Mindfulness and Academic environment as predictors of Wellness. Statistical significance was set at p≤0.05. This project received institutional IRB approval.

Summary of Results: Response rates were between 50% and 60% for each cohort. Baseline results were obtained using descriptive statistics for future comparisons. There were no statistically differences in WARM scores between first and second year students. Multivariable linear regression showed that student Wellness was predicted by Academic Environment (beta=0.73, 95% CI 0.58, 0.88) and Mindfulness (beta=0.64, 95% CI 0.34, 0.94) scores.

Discussion and Conclusions: After two years of implementation of WARM, there are no differences in WARM scores between first and second year students. Multivariable linear regression showed that student Wellness was significantly predicted by Academic Environment and Mindfulness, which can be used to inform curricular strategies aiming at improving Wellness among medical students.

Take-home Messages: Improvement of academic environment, including curricular strategies, study methods, mentoring, student satisfaction and faculty development are all part of a comprehensive approach to medical student Wellness, which is key to academic performance. Implementing these strategies early in the curriculum and overall management of the medical academic program to enhance the student experience should help develop burnout-prevention skills among future graduate and practitioners.
Comparison of face-to-face and online mindfulness interventions among healthcare professional students in Finland: A randomized controlled trial

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ABSTRACT

Background: Previous studies have shown that both face-to-face and online mindfulness training reduces stress and enhances well-being in undergraduate students (Galante et al. 2018, Spijkerman et al. 2015). The evidence concerning the effectiveness of mindfulness interventions among medical students is mixed. The aim of this study was to test whether two types of mindfulness interventions, face-to-face training and internet-based training could enhance the students’ well-being.

Summary of Work: A randomized controlled trial in undergraduate students was conducted at the University of Helsinki. We divided the voluntary students into three groups 1) control group (n=40), 2) face-to-face training group (n=40) and 3) internet-based training group (n=22). The potential well-being outcomes were measured three times, at the baseline, post-intervention and after a four months follow-up using the CORE-OM34 and its five domains (well-being, symptoms, functioning, risk, non-risk). The study protocol was registered in ClinicalTrials.gov.

Summary of Results: We recruited 102 students (74 female, 26 male and two other) from all the five study programmes of the faculty. In the baseline, 28 % of the participants experienced quite a lot or a lot of stress. Eight-week interventions were conducted in October and November in 2018. In the face-to-face group 95 % and the internet-based group 81 % completed the course. Nearly all (97%) of the face-to-face group and the internet-based group (93%) would recommend the course for others. The longer term effect will be examined by comparing the CORE-OM34 results after the intervention and in a follow up after four months (April 2019).

Discussion and Conclusions: Participants were very committed to both interventions and experienced them useful. Our study-design contains not only immediate but also the follow-up outcomes of the intervention. Based on these results, the Faculty will decide whether the students will be offered mindfulness courses in future and what type of training would be the most suitable.

Take-home Messages: Stress levels among the students of healthcare professions are high. Our intervention study on the two types of mindfulness courses provides valuable information for those who are at the outset of developing stress management training for students.
Support cell for medical students

AUTHOR(S):

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- Catherine Massoubre, Faculty of Medicine Jacques Lisfranc, France

ABSTRACT

Background: The psycho-social risks of medical students have been the subject of national and international studies, which have highlighted several risk factors. In 2016, a questionnaire on the mental health of young people and future doctors showed that 66.2% of young and future doctors suffered from anxiety - compared to 26.1% in the general population; 27.7% were depressed - compared to 10.1%; and 23.7% have suicidal thoughts - compared to 4% of young people aged 20-30. Besides, 738 respondents had reportedly already attempted suicide.

Summary of Work: To respond concretely to these alarming figures, the Faculty of Medicine of Saint Etienne chose to react by creating a support cell. The support cell was opened in January 2017, initiated by Professor Catherine Massoubre, hospital practitioner of psychiatry and pedagogy assessor at the Medicine Faculty of Saint-Etienne. The cell, composed of three professors, is open to all students in the Faculty of Medicine. Students can directly request an appointment, via an e-mail address, managed by the three professors. Each request is confidential. The students can also be referred to the cell by the teachers or doctors they work with. The aim is to guide the student towards the structures that can best help them: psychiatrist, psychologist, addiction centre, social worker, etc. When the problem concerns the practice at the hospital, the head of the department or unit can be contacted.

Summary of Results: More than 8% of the students have already used the cell, from the first year to the end of their internship.

Discussion and Conclusions: This support cell is widely used. It shows that it is essential to have such a structure, although, the support cell is time consuming for the people who manage it. Other means of help exist: in Limoges, Tours and Paris, a teacher-student interface office has been set up; in Amiens, an association for student mental health has been created.

Take-home Messages: Many students suffer from anxiety disorders, moreover, some of them have suicidal thoughts. The results show that it was a necessity to create such a structure, all French medical schools should to set up a support cell to help the students along their studies.
Perception of self-medication among medical students in Saint-Etienne: quantitative study by self-questionnaire

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ABSTRACT

Background: Self-medication is a widespread practice in our society, leading to autonomous health management. According to an IPSOS study in 2015, 91% of French people felt able to manage simple health problems. This phenomenon has been poorly studied among medical students. The objective was to study the point of view of Saint-Etienne medical students on self-medication through the acquisition of medical knowledge and the right to prescribe.

Summary of Work: A cross-sectional, monocentric, descriptive, self-administered, anonymous observational study was conducted from March 9, 2018 to May 2, 2018 with 1382 Saint-Etienne medical students from the 2nd year of medical school to the last year of residency. For this study, paracetamol, ibuprofen, homeopathy and herbal medicine were arbitrarily excluded.

Summary of Results: The participation rate was 40.7% or 563 usable responses. The mean age was 24.1 years (standard deviation = 3.4) with 65.5% of women. The self-medication rate was 79.8% for all promotions combined and was higher among residents than among medical students from the 2nd year to the 6th year of medical school: \( p < 0.001 \). While almost all participants thought that self-medication in the general population was a risky practice (93%), they considered their own self-medication responsible (90.4%). The main reason for self-medication given by residents was sufficient medical knowledge, while medical students mainly mentioned lack of time. The perception of health care management among self-medicated participants was identical to worse than the general population, while participants who did not practice self-medication perceived their health care as identical to better (\( p = 0.037 \)). Almost half of the respondents who described their care as less good were residents at the end of their residency. The majority of respondents were opposed to the prohibition of self-prescribing (88.2%): self-medicated participants were more opposed than others (\( OR = 2.94; IC_{95} = 1.83-4.73 \)).

Discussion and Conclusions: Faced with the self-medication of medical students, the question of a greater involvement of occupational medicine as well as academic medicine arises.

Take-home Messages: The self-medication rate was 79.8%. Participants thought that self-medication was responsible. Almost half of the respondents who described their care as less good were residents at the end of their residency.
An innovative model for mental health care and educational support in Brazilian medical education context: Personal Development Planning (PDP) Framework

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ABSTRACT

Background: The prevalence of mental health problems among medical students have significant proportions worldwide. The spirit of time (germ. Zeitgeist) is to 'Act' in favor of health promotion.

Summary of Work: Conception of a PDP-Framework in a Brazilian Medical School based on medical students’ needs and curriculum reform. PDP definition and model were based on QAA Guidance Document (2009). The PDP-Framework received approval from the rector of the University, and was endorsed by the students’ representations. PDP-Framework were included in the Course Pedagogic Project and shared with academic community. The implementation of the PDP was planned to initiate in the first-semester of the medical program in 2018.

Summary of Results: The main issues of the medical students were lack of time for extra-curricular activities, lack of mental health care and educational support. Based on these results we performed a curricular reform that reduced the hours of curricular activities in 30% and conceived the PDP-Framework. Our model was to embedded PDP into mainstream curriculum as a subject discipline one hour per week in tutorial groups of ten students, facilitated by two psychologists and one doctor specialist in all years of the medical program. We defined two main competences that foresee transitional skills, self-regulation, self-care, professionalism, resilience and personal, educational and career planning. Learning outcomes were defined for each semester. The PDP privileges active methods of learning based on the process of reflection. Assessment of student performance includes formative and summative manner with questionnaires, reflective writing, ePortfolio and feedback. The PDP evaluation will be based on Kirkpatrick's Model.

Discussion and Conclusions: Evidence on interventions in educational environment for promotion of medical students’ mental health is limited and quality of the studies is generally low. Partial results of a national survey on support models for medical students in Brazil point to three mains models: psychopedagogical, mental health care and mentoring; optional and parallel to curriculum. The PDP-Model embebbed into mainstream curriculum in all years of the course seems to be a new concept of mental-health care and educational support for medical students in Brazil.

Take-home Messages: Personal Development Planning framework seems to be innovative in the context of Brazilian medical education.