

Moments of exhaustion: an experience sampling study of mental health in medical students' first exam preparation [Abstract]

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Moments of exhaustion: An experience sampling study of mental health in medical students' first exam preparation

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Objective: Exam preparation in the first semester of medical school is often accompanied by increased stress and emotional exhaustion [1]. Although these experiences can vary across individuals, days and situations [2], [3], there is little empirical knowledge about their temporal variations during exam preparation. This study therefore examines within- and between-student fluctuations of stress, emotional exhaustion and well-being during first-semester exam preparation. To better understand this period and inform potential support measures, we assessed students' workload, and one key question was: How do perceived daily demands (amount of study and examination material and pressure to perform) and daily resources (self-confidence and perceived social support) influence momentary emotional exhaustion during the first exam preparation period of medical students?

Methods: $N=95$ medical students from a medical school in Germany conducted a 11-day experience sampling study during their first exam preparation, including three daily prompts and one evening questionnaire each day. Three-level random slope regression models (situation, day, student) were used to examine within- and between-day changes in stress (Freiburg Personality Inventory), emotional exhaustion (Maslach Burnout Inventory), well-being (Questionnaire on General Habitual Well-Being) and workload as well as the influence of study demands and resources on emotional exhaustion.

Results: At the situational level, stress and emotional exhaustion increased within days, whereas across the 11 days, stress remained stable and emotional exhaustion slightly increased. Well-being declined both within days and across the study period and perceived workload increased as the exam approached. Substantial between-student differences were observed. Perceiving the amount of examination material and performance pressure as more demanding was associated with larger emotional exhaustion, whereas self-confidence was linked to lower emotional exhaustion. Social support showed no significant relationship with emotional exhaustion.

Discussion: The results suggest that temporal fluctuations in mental health during exam preparation are meaningfully linked to study-related demands and resources, with workload and performance pressure amplifying emotional exhaustion and self-confidence acting as a protective factor. Interventions should therefore address not only overall emotional exhaustion but also daily fluctuations and interindividual differences. One example is a transforming stress program, where students can identify their own stressors and develop individual coping strategies.

Take-home messages:

- Emotional exhaustion is linked to study demands and resources.
- Interventions addressing mental health should consider timely fluctuations as well as (inter-) individual differences of medical students.

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