

Background and Objectives

Academic burnout among university students

Increasing problem: Prevalence rates above 30% (Almutairi et al., 2022; Rosales-Ricardo et al., 2021)

Consequences: Impaired (mental) health and reduced academic success (Madigan & Curran, 2021; Wei et al., 2021)

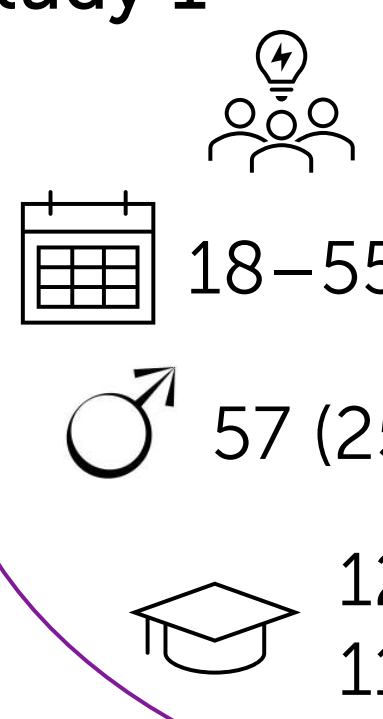
Study Demands-Resources model (Lesener et al., 2020; Salmela-Aro et al., 2022)

- Academic burnout results from high study demands and low resources.
- Resources buffer the impact of study demands on academic burnout.

The buffering effect of resources proposed by the Study Demands-Resources model has rarely been studied among university students. Therefore, we investigated whether the three personal resources mindfulness, time management, and reading comprehension as well as the two study-related resources perceived support from teachers and from peer students serve as buffers of the effect of study demands on emotional exhaustion the main component of academic burnout.

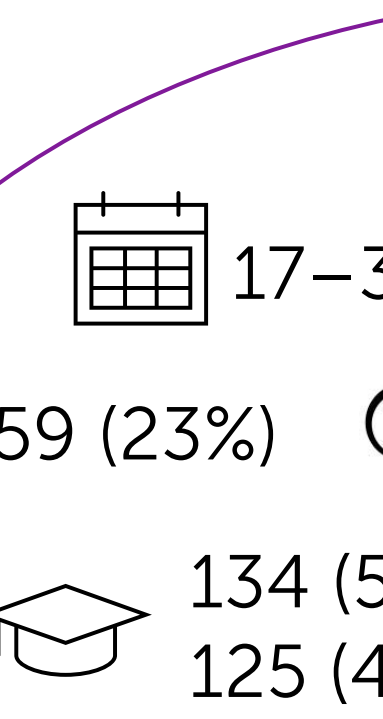
Method

Study 1




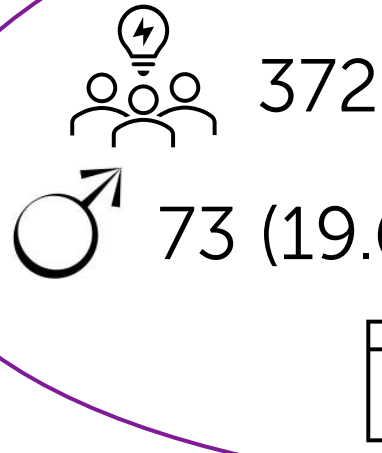
232 students  
18–55 years, M = 23 years  
57 (25%) 175 (75%)  
121 (52%) bachelor  
111 (48%) master

Study 2




259 students  
17–32 years, M = 22 years  
59 (23%) 198 (76%) 2 (1%)  
134 (52%) bachelor  
125 (48%) master

Study 3 (funded by  ZonMw)



372 undergraduate medical students  
73 (19.6%) 297 (79.8%) 2 (0.5%)  
17–31 years, M = 20 years

Measures



Emotional exhaustion (study 1–3)  
Maslach Burnout Inventory-Student Survey, Dutch version (Schaufeli et al., 2002)

Study demands  
Study 1 and 3: Study Demands-Resources Questionnaire (Mokgele, 2014)  
Study 2: University Demands Resources Questionnaire (Jagodics & Szabó, 2022)

Personal resources (study 1)  
Mindfulness: Short Five Facet Mindfulness Questionnaire (LKPZ, 2014)  
Time management and Reading comprehension: Study Skills Assessment Questionnaire (Hassanbeigi et al., 2011)

Study-related resources (study 2 and 3, respectively)  
Perceived support from teachers and peer students: self-developed (Bink, 2022)  
Perceived support from peer students: Study Demands-Resources Questionnaire (Mokgele, 2014)

Results

Regression analyses with personal resources as moderators (study 1)

Outcome: Emotional exhaustion

| Predictors        | Moderator: Mindfulness  | Moderator: Time management | Moderator: Reading comprehension |
|-------------------|-------------------------|----------------------------|----------------------------------|
| Step 1            | R <sup>2</sup> = .41*** | R <sup>2</sup> = .29***    | R <sup>2</sup> = .28***          |
| Study demands     | 0.62***                 | 0.92***                    | 0.92***                          |
| Moderator         | −0.76***                | −0.28*                     | −0.21(*)                         |
| Step 2            | ΔR <sup>2</sup> = .00   | ΔR <sup>2</sup> = .01      | ΔR <sup>2</sup> = .00            |
| Study demands     | 0.31                    | 0.32                       | 0.71                             |
| Moderator         | −0.99**                 | −0.78                      | −0.38                            |
| Demands*Moderator | 0.10                    | 0.23                       | 0.07                             |

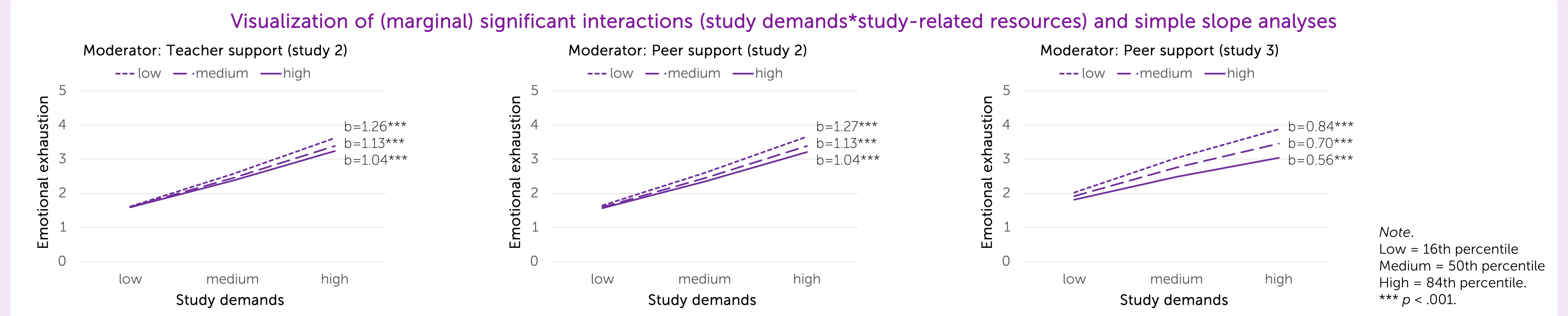
Note. Unstandardized coefficients (bs) are reported. (\*\*) *p* < .10, \* *p* < .05, \*\* *p* < .01, \*\*\* *p* < .001.

Regression analyses with study-related resources as moderators (study 2–3)

Outcome: Emotional exhaustion

| Predictors        | Moderator: Teacher support (study 2) | Moderator: Peer support (study 2) | Moderator: Peer support (study 3) |
|-------------------|--------------------------------------|-----------------------------------|-----------------------------------|
| Step 1            | R <sup>2</sup> = .52***              | R <sup>2</sup> = .52***           | R <sup>2</sup> = .32***           |
| Study demands     | 1.14***                              | 1.15***                           | 0.71***                           |
| Moderator         | −0.12                                | −0.15*                            | −0.12***                          |
| Step 2            | ΔR <sup>2</sup> = .01(*)             | ΔR <sup>2</sup> = .01(*)          | ΔR <sup>2</sup> = .01*            |
| Study demands     | 1.40***                              | 1.48***                           | 1.13***                           |
| Moderator         | 0.14                                 | 0.12                              | 0.24                              |
| Demands*Moderator | −0.13(*)                             | −0.14(*)                          | −0.11*                            |

Note. Unstandardized coefficients (bs) are reported. (\*\*) *p* < .10, \* *p* < .05, \*\* *p* < .01, \*\*\* *p* < .001.



Discussion and Conclusion

Resources as buffer of the burnout promoting effect of study demands?

Personal resources: No support was found for the buffer hypothesis. However, independent of study demands, mindfulness, time management, and reading comprehension were significantly associated with less emotional exhaustion.

Study-related resources: Only weak support was found for the buffer hypothesis. Even with high perceived support from teachers and peer students, study demands were significantly associated with more emotional exhaustion.

Assisting students to develop personal resources and creating a supportive learning environment may help to reduce academic burnout. However, this will not be sufficient to prevent academic burnout as study demands significantly promote academic burnout, independent of the level of the investigated resources. Until research has identified resources that actually serve as buffers, universities are advised to critically review their study programs and to diminishing study demands when possible.

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