# Article information:

Cumulative cortisol exposure increases during the academic term: Links to performance-related and social-evaluative stressors - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S0306453020300032>

# Article summary:

1. Cumulative cortisol production increases during the academic term compared to summer break, indicating greater exposure to stress.

2. Stressful events, particularly those involving academic demands or social-evaluative threat, are positively associated with cumulative cortisol exposure.

3. Perceived stress is not significantly associated with cortisol levels, suggesting that retrospective measurement bias may have contributed to previous inconsistent findings.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article "Cumulative cortisol exposure increases during the academic term: Links to performance-related and social-evaluative stressors" presents a study that examines the relationship between chronic stress, cortisol production, and stressful events in college students. The authors use hair samples to assess cortisol levels over an extended period of time and compare them between lower stress (summer break) and higher stress (academic term) periods. They also investigate whether perceived stress or stressful events are more strongly associated with cortisol output and whether certain types of stressors are linked to higher cortisol levels.

Overall, the article provides valuable insights into the relationship between chronic stress and cortisol production in college students. The use of hair samples to assess cortisol levels over an extended period of time is a significant improvement over previous studies that relied on brief measures of HPA axis function. The finding that cortisol levels were significantly higher during the academic term compared to summer break suggests that college life is indeed a significant source of chronic stress for many students.

However, there are some potential biases and limitations in the study that should be considered. First, the sample size is relatively small (56 undergraduates), which may limit the generalizability of the findings. Second, while the authors attempt to minimize retrospective bias by assessing stressful events weekly, it is still possible that participants may have difficulty accurately recalling all their stressful experiences over a 10-week period. Third, while the authors suggest that social-evaluative threat may be particularly likely to activate the HPA axis in college students, they do not provide much evidence for this claim beyond citing previous research on acute HPA effects in lab settings.

Additionally, while the authors find no significant association between perceived stress and cortisol levels, they do not explore why this might be the case. It is possible that self-report measures of perceived stress are less reliable than objective measures of stressful events or circumstances, as suggested by previous research on retrospective bias. However, it is also possible that other factors such as coping strategies or social support may moderate the relationship between perceived stress and cortisol production.

Finally, while the authors note that chronic exposure to high levels of cortisol can have negative health consequences such as cardiovascular disease and immune dysfunction, they do not discuss potential interventions or strategies for reducing chronic stress in college students. This could be an important area for future research given the high prevalence of chronic stress among college students.

In conclusion, while there are some potential biases and limitations in this study, it provides valuable insights into how chronic stress affects cortisol production in college students. The use of hair samples to assess cumulative cortisol exposure over an extended period of time represents a significant improvement over previous studies relying on brief measures of HPA axis function. However, further research is needed to better understand why perceived stress may not be strongly associated with cortisol production and how interventions can reduce chronic stress in college students.

# Topics for further research:

* Strategies for reducing chronic stress in college students
* Health consequences of chronic cortisol exposure
* Social-evaluative threat and its effects on cortisol production
* Coping strategies for managing chronic stress
* Objective measures of stressful events and circumstances
* Long-term effects of chronic stress on mental health

# Report location:

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