

# Exploring the relationship between stress and acne: a medical student's perspective

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## Dear editor

We read with great interest the paper by Zari and Alrahmani<sup>1</sup> investigating the relationship between stress and acne among female medical students. These findings are relevant as around 20% of young people are affected by moderate-to-severe acne, and indeed acne severity is associated with increased risks of anxiety, depression, and suicidal ideation.<sup>2</sup> The authors identified that “stress severity strongly correlated with an increase in acne severity,” and suggested that stress likely has an important role in the pathogenesis of acne.<sup>1</sup> However, the paper could have been taken further to better establish the true extent of this relationship, and ultimately whether certain patients will benefit from clinical interventions based on their perceived stress scale.

One way a stronger causal relationship may be achieved is by evaluating whether stress-reduction techniques can significantly reduce acne severity. As medical students in our clinical years, we ourselves are subject to high levels of stress, and have experienced first-hand the effectiveness of stress-reduction techniques in our curriculum via student selected components (SSCs) at Barts and The London School of Medicine.<sup>3</sup> SSCs, such as Mindfulness and Clinical Hypnosis, focus on developing a greater understanding and awareness of when we are stressed and recommend a variety of stress management tools. These relaxation techniques can reduce anxiety and improve overall mental health, which is also strongly linked to higher academic performance.<sup>4</sup> Investigating reductions in student stress and acne in the months following these SSCs could provide strong evidence for a causal relationship and further offer practical solutions to help acne sufferers. It would also aid in distinguishing whether the stress leading to acne originates from extrinsic factors or whether it is due to an individual's “intrinsic” predisposition to produce stress responses.

Furthermore, the design of this paper was a cross-sectional study, and so the use of questionnaires to establish cause-and-effect relationships may be hindered by recall bias. Acne is known to negatively affect quality of life and mood, so it is possible acne can lead to stress and not vice versa.<sup>5</sup> To help address this issue, we recommend measuring student stress and acne levels at different times during the medical course and comparing values relative to each individual. The paper by Zari and Alrahmani<sup>1</sup>

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does not necessarily recognize this limitation, and so perhaps in addition to the research conducted, this would be useful.

We believe the effects of stress-reducing techniques on acne severity merit further investigation. Evaluating the influence of lifestyle factors, such as exercise and sleep, on stress and acne would also be interesting due to the lack of research in this field. Lastly, conducting studies on both sexes rather than female students alone should be considered for future research.

## Disclosure

The authors report no conflicts of interest in this communication.

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