

# Effect of COVID-19 on Menstruation and Lower Reproductive Tract Health [Letter]

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## Dear editor

We thank Li et al<sup>1</sup> and the departments of Obstetrics and Gynaecology for their insightful study on the “effect of COVID-19 on menstruation and lower reproductive tract health”. As medical students in the UK, we recognise the importance of research on women's health and appreciate the future implications of this study. However, we wish to highlight areas that could be improved to provide more generalisable and reproducible findings.

Firstly, a limitation discussed in the study was recall bias,<sup>1</sup> as the study consisted of an online survey collecting self-assessment data, requiring women to recall symptoms from several years ago. However, it was mentioned that studies reported the validity of self-assessment is 92.9–100%. However, these high percentages were associated with immediate recall,<sup>2</sup> which cannot be applied to this investigation, as the data recalled from years ago.

Additionally, women who had selected “forgot” for the menstrual parameters were classified as having no change to their menstruation. However, this is inaccurate as they may have experienced a change in symptoms and should have been considered in the exclusion criteria. Also, perceptions of symptoms may vary among women (e.g., volume of bleeding). Implementing Likert scale questions allows us to analyse and compare the symptoms in more depth. Also, the questions could have been more comprehensive, as birth control was not considered, although birth control can affect the menstrual cycle.<sup>3</sup>

Furthermore, while we appreciate the efforts in achieving a diverse demographic of participants, we believe they should have kept additional control variables to understand the single effect of COVID-19 on women's health fully. For example, 37.4% of participants had pre-existing gynaecology conditions, and 64.1% received three doses of the COVID-19 vaccination.<sup>1</sup> We believe that the participants with pre-existing gynaecology conditions should have been excluded, as their symptoms could be from their condition. Current ongoing research has demonstrated the potential impact of the COVID-19 vaccine and changes in menstruation. Therefore, the effect on the lower reproductive tract cannot be pinpointed to COVID-19 disease rather than the vaccine.<sup>4</sup> To eliminate this, future research can implement a control group of participants who chose not to have the COVID-19 vaccination and those who had COVID-19 throughout the timeframe.

Moreover, sensitive data was collected via social media, which may have hindered patients' confidence in completing the questionnaire or sharing pertinent personal information about their symptoms. Future research can be conducted in a hospital environment or via telephone interviews where participants may feel more comfortable disclosing sensitive matters. Additionally, implementing a mixed-method study, such as using focus groups or collecting qualitative information, can provide more detailed insight into the participant's experiences.<sup>5</sup>

Overall, we thank Li et al<sup>1</sup> for their insights regarding women's health and COVID-19, and we hope the suggestions offered aim to build on these foundations of the study to improve it further. Future research can aid in identifying the specific and in-depth effects of COVID-19 on women's health and how services can be implemented to support patients affected.

## Disclosure

The authors report no conflicts of interest in this communication.

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