

Development, Implementation, and Assessment of an Online Modular Telehealth Curriculum for Health Professions Students [Letter]

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Dear editor

We write regarding the study by Ostrovsky et al,¹ which details the creation and evaluation of a curriculum which intends to improve healthcare students' telehealth competencies.

The implementation of these modules into the Doctor of Medicine (MD), Physician Assistant (PA), and Nurse Practitioner (NP) programs at Duke University demonstrated promising outcomes. Students reported increased confidence in telehealth skills and a moderate to high likelihood of applying these skills in future practice. Data collected through surveys indicated that the curriculum effectively improved students' knowledge and confidence, although there was some variation in confidence levels between the different professional groups such as NPs who rated their confidence slightly lower than the other groups.

The paper gives a thorough overview showcasing the curriculum's development, highlighting a multidisciplinary approach, of which there was previously scarce research, as highlighted by Bajra et al.² This approach helps to enhance the curriculum's relevance across various disciplines. Interactive, flexible online modules assist with self-paced learning, aligning with adult education principles (andragogy).³ The incorporation of these modules into existing courses also shows practical application that can be easily adopted by other institutions.

Conducted at a single university in the USA during one academic year, the study was a requirement for the completion of the PA and NP courses, however it was an elective experience for the MD course. This exposes the study to the effects of volunteer bias; those choosing to take part may have had an interest, or background knowledge of the topic. This puts into question the external validity of the study, as it limits the generalizability of the results.⁴ The effect becomes further unknown as there was no pre-test survey to evaluate baseline knowledge, as acknowledged by the authors. To mitigate these effects, we suggest that this study be conducted by all students within the MD course, ensuring a sample more representative of the entire healthcare student population.

The study also lacks an objective evaluation such as a standardized assessment that could verify whether students' knowledge and skills improved. Implementing an assessment pre and post course would show evidence of knowledge gained. Without such objective data, the effectiveness of the curriculum in gaining demonstrable clinical competence remains uncertain. Students were surveyed immediately after completing the modules; hence it is unclear whether the knowledge and skills will be retained months later. It may be useful to introduce a follow up assessment to track how their abilities evolve over time. Furthermore, the reliance on perception-based outcomes is a common limitation in educational research, as it focuses on what learners believe they have gained, rather than what they can objectively demonstrate they have learned.⁵

To conclude, the paper provides valuable insights into the formation of telehealth curricula. This letter aims to help better understand the potential areas for improvement in the development of such curricula. We thank the authors for their work in progressing the field of medical education.

Disclosure

The authors report no conflicts of interest in this communication.

References

1. Ostrovsky D, Heflin M, Bowers M, et al. Development, implementation, and assessment of an online modular telehealth curriculum for Health Professions Students. *Advan Medl Educat Pract*. 2024;15:743–753. doi:10.2147/amep.s468833
2. Bajra R, Frazier W, Graves L, et al. Feasibility and acceptability of a US national telemedicine curriculum for medical students and residents: multi-institutional cross-sectional study. *JMIR Med Educat*. 2023;9. doi:10.2196/43190
3. Mukhalalati BA, Taylor A. Adult learning theories in context: a quick guide for healthcare professional educators. *J Med Educat Curric Develop*. 2019;6:238212051984033. doi:10.1177/2382120519840332
4. Jordan S, Watkins A, Storey M, et al. Volunteer Bias in recruitment, retention, and blood sample donation in a randomised controlled trial involving mothers and their children at six months and two years: a longitudinal analysis. *PLoS One*. 2013;8(7):e67912. doi:10.1371/journal.pone.0067912
5. Tempelaar D, Rienties B, Nguyen Q. Subjective data, objective data, and the role of bias in predictive modelling: lessons from a dispositional learning analytics application. *PLoS One*. 2020;15(6):e0233977. doi:10.1371/journal.pone.0233977

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