within our Emergency Department to deliver care specific to TGNB patients. Our objective was to improve knowledge, comfort and communication skills using gender-affirming vocabulary and to promote trauma-informed care.

We conducted a pre- and post-intervention study at an urban academic emergency department for residents and faculty. Our vOSCE consisted of two case scenarios written by a transgender faculty member: a transgender male with an ectopic pregnancy and a non-binary teenager with a suicide attempt. TGNB individuals were recruited as standardised patients. The vOSCE began with a pre-brief, then proceeded to both cases with groups of three to four providers. Each scenario consisted of a 10-min encounter, followed by a 15-min debrief with direct feedback from standardised patients and simulation faculty. Participants then anonymously rated the experience on a Likert scale and provided feedback.

3 | WHAT LESSONS WERE LEARNED?

A total of 34 residents and 12 faculty members participated. Of our participants, 94% of residents and all faculty reported having taken care of TGNB patients, but 11.8% of residents and 58.3% of faculty reported never receiving formal education specific to TGNB health care.

After vOSCE, residents and faculty reported improved comfort with medical management and interpersonal communication. In regard to medical management, only 8% of residents, compared to an initial 24.9%, and no faculty members reported discomfort after the vOSCE ($P < .05$). Only one resident of the entire participant cohort reported discomfort with interpersonal communication post-vOSCE. Although this lacked statistical significance, it still has clinical relevance as all residents and faculty found the session relevant to their clinical practice and would recommend the learning experience to others.

There were challenges related to the virtual setting of this intervention, which is different from our participants' clinical practice environment. However, the virtual setting allowed broad recruitment of TGNB individuals from the community, and therefore, participants received relevant and meaningful feedback. We found the collaboration with TGNB individuals an invaluable part of the successful vOSCE and hope to continue to utilise their expertise for future TGNB health care educational initiatives. We focused on participants' comfort only and will consider including objective assessment of medical knowledge and communication skills in future studies.

There is a strong need to create further educational interventions specific to TGNB health care. While a majority of our participants reported taking care of TGNB patients, a significant amount reported discomfort in aspects related to the delivery of care. Advancing TGNB health-specific education in our medical curriculum is vital to improve our TGNB patients' access to better care.

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REFERENCE

1. Safer JD, Coleman E, Feldman J, et al. Barriers to healthcare for transgender individuals. *Curr Opin Endocrinol Diabetes Obes*. 2016;23(2):168-171.

Three-staged key-feature cases promote interaction in remote education

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1 | WHAT PROBLEMS WERE ADDRESSED?

Remote education challenges educators to create learning environments that engage students. In particular, medical curricula require high levels of student interaction to sustainably integrate previously learned skills and clinical thinking.[1]

2 | WHAT WAS TRIED?

We employed a remote format with the following elements: (a) remote key-feature video cases to simulate clinical decision making and reflection; (b) remote background videos containing official learning materials, relevant guidelines and publications, followed by a

self-assessment with stimulus for further studies; and (c) a live case-discussion webinar with discussion and reflection focusing on clinical reasoning. The lessons were taught by near-peers, who were junior clinicians trained in medical didactics.

The interactive key-feature video cases were presented as interactive HTML5 package (H5P) videos that allow the creators to add messages, questions, links and other interactions. The key-feature cases portrayed structured simulations of clinical cases experienced by the peers. During the presentations, students were confronted with intermittent questions on initial assessment, history taking, physical examination, further diagnostics and patient communication.

Completing the case presentation unlocked the background material. This contained videos that reviewed previous learning materials and introduced medical guidelines and publications. After an anonymous self-assessment, links to the learning materials, guidelines and publications were presented to encourage repetition, crosslinking and evidence-based learning.

The third stage was the live case-discussion webinar moderated by the peers. Here, the key-feature case was discussed, and first-stage questions were posed to the plenum. The students shared their answers via chat, which was tutor-moderated. Subsequently, patients' diagnoses and examinations were debated. Students were encouraged to further discuss their reflection and clinical reasoning.

Six hundred fifty-two graduate students registered for this elective course. The remote key-feature cases were introduced twice weekly, with 2 days of preparation prior to the live case-discussion webinar. The course comprised 17 interdisciplinary cases with 6 h of remote video material, 17 self-assessments, 13.5 h of interactive webinars and 96 learning materials. The remote content had a mean participation of 451 students, and the webinar had a mean participation of 397 students who interacted 1250 times within 45 min by posting their clinical workflow, questions and reflections.

3 | WHAT LESSONS WERE LEARNED?

The standardised feedback utilising the 1-min paper showed a positive student response, underlining high attendance and interaction. Students stated they profited by reflecting on their clinical workflow in a safe environment. Further investigations are required to evaluate students' ability to cope with transition to clinical roles.

The technical setup, utilising a recorded presentation in combination with the H5P tool, offered rapid implementation for the near-peers without requiring an external technician. During the first live discussions, the presenter was overwhelmed by the large number of student responses, finding it challenging to moderate and present simultaneously. Consequently, a second moderator was introduced during later sections.

This three-staged key-feature case format enables medical educators to promote student interaction during remote teaching. It is applicable to various medical curricula, as well as concepts of hybrid and blended learning.

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REFERENCE
1. Bintley H, Easton G, George R, et al. Twelve tips for teaching clinical and communication skills online. *MedEdPublish*. 2021;10(1):27. https://doi.org/10.15694/mep.2021.000027.1

A cadaveric simulation-teaching model for radiology residents

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1 | WHAT PROBLEM WAS ADDRESSED?

Anatomy is a cornerstone of radiological practice. Radiology residents usually draw on their basic anatomy knowledge for radiological examinations. They focus on learning anatomical radiology, meaning a two-dimensional grey scale depiction of the body, without having any formal surgical anatomy learning.

Meanwhile, interventional imaging is developing. Understanding of anatomy revealed during Computed Tomography, Ultrasound and Magnetic Resonance Imaging scanning is highly valuable, because radiologists use these technologies to guide needle or trocar placement. Residents' prior knowledge of anatomy did not always transfer to adequate procedural skills for interventional radiology, suggesting the need for further simulation practice.