

## ORIGINAL RESEARCH

# An interprofessional medical malpractice mock trial: event evolution and assessment of efficacy

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<https://ijohs.com/article/doi/10.54531/ZXMK6987>

## ABSTRACT

### Introduction

Medical malpractice trials improve understanding of law and healthcare intersection. Healthcare professional curricula rarely include interprofessional (IP) medical malpractice simulation learning. We describe a framework and student impressions for delivery of a large-scale interinstitutional IP mock trial.

### Methods

An interinstitutional IP mock trial established in 2018 evolved from in-person to hybrid to virtual delivery formats. Healthcare and law students participated as trial attorneys, witnesses and jury members. Jurors heard the case (opening statements, Plaintiff/Defendant cases, closing statements) before IP juries convened to deliberate. A debriefing discussion followed verdict delivery. Student evaluations from in-person, hybrid and virtual offerings were compared.

### Results

Learners from 19 professions across four institutions and 12 IP facilitators participated in in-person ( $n = 102$ ), hybrid ( $n = 77$ ) and virtual ( $n = 201$ ) events. Similar improvement in perceived IP competency was seen across formats. Equivalent improvement in Interprofessional Education Collaborative (IPEC) competencies was seen for in-person, hybrid and virtual events. The vast majority of learners felt that all events, in-person, hybrid and virtual formats, respectively, provided a high level of psychological safety (93%, 95%, 96%), active engagement (93%, 96%, 91%), reduced anxiety about medical malpractice trials (93%, 90%, 93%). Benefits of the virtual approach included greater diversity of IP learners and facilitators due to elimination of the geographical distance barrier.

### Discussion

A large-scale interinstitutional IP mock medical malpractice trial increased students' perception of learning and IP skills, and supported healthcare and law students learning with, from and about each other. Virtual large-scale simulation events effectively increase accessibility for learners and expert faculty.

### What this study adds

- Medical malpractice simulations for healthcare professionals are rare despite the stress of this experience in 'real life'.
- Most published medical mock trials do not involve interprofessional learners.
- An interinstitutional, interprofessional medical malpractice mock trial improves learner Interprofessional Education Collaborative (IPEC) competencies.
- The mock trial simulation experience is effective across in-person, hybrid and virtual platforms.
- Simulation learning alongside law professionals improves healthcare students' understanding of the legal process.

## Introduction

Medical malpractice occurs when a healthcare professional deviates from the 'standard of care' in patient treatment, defined as what a reasonable medical provider would have done in the same clinical situation. Medical malpractice cases are not rare in the US with an average of 12,414 per year between 2009 and 2018 recorded by the National Practitioner Data Bank (NPDB) [1]. To underline this, by the age of 65 years, 75% of physicians in low-risk specialties had experienced a malpractice claim, as had 99% of physicians in high-risk specialties [2]. The psychological impact of this issue on healthcare professions is significant. Being involved in a medical malpractice trial is associated with an increased risk of mental health issues, substance misuse, financial struggle and physical illness [3]. The threat of a lawsuit can also change the way healthcare professionals practice and make them more 'defensive' in their approach, leading to increased wasteful expense [4–6]. The experience of a malpractice trial likely represents an individual's first experience in a courtroom, which can exacerbate the anxiety felt.

The majority of undergraduate healthcare professional curricula do not include medical malpractice law nor any problem-based or simulation learning to aid in preparation for this situation. Simulated mock trials have, however, been organized to provide physicians and resident physicians education alongside lawyers and law students [7–12]. The literature does not describe simulations in which law students and healthcare students collaborate as jurors to reach a verdict. The mock trial environment has been shown to be a valuable educational experience enabling learners to gain critical/analytic thinking skills and creative adaptation skills through testifying, cross-examination and jury deliberation in a realistic environment associated with low risk to the learner [13,14]. Simulated learning events also utilize active learning strategies, associated with improved student learner engagement [15,16]. Simulated learning events have been shown to reduce learner anxiety and improve confidence which are important in preparation for medical malpractice lawsuits [17].

Interprofessional (IP) education (IPE) involves students from two or more healthcare professions actively learning from, with and about each other and can develop knowledge,

skills and attitudes important to the provision of excellent patient care [18,19]. Mock trials can convey impact on the understanding of the intersection of law and health care outcomes and provide an effective way to bring health professions students and law students together for IP active learning. Organization of mock trial events using simulation and IPE methodology can add important perspective and depth to the learner's experience and may decrease anxiety for future exposures to a courtroom setting.

A mock trial targeting three primary objectives has been offered by our institution since 2018. First, this educational event utilizes an active simulation methodology to expose students to learning content related to medical malpractice. Second, the mock trial simulation creates an IP learning environment where students participating as trial lawyers, witnesses and jury members have opportunity to learn about, from and with one another as they prepare for, participate in or deliberate on the information presented in the trial. Finally, the mock trial is an interinstitutional collaboration between universities that do not typically work together. To add complexity, the COVID-19 pandemic necessitated a rapid shift of learning to the virtual platform, in largely untested territory. As the pandemic continues, critical assessment of the efficacy of virtual events is vital. Transition of large-scale simulation-based events to virtual delivery is especially daunting due to the number of learners, increased faculty requirements, adaptation by standardized participants, increased technological resource requirements and administrative technological challenges involved. Robust assessment of virtual event efficacy is central to this goal and further expands the scope of learners that may be included in IP learning activities when geographical barriers are removed.

The aim of this work is to describe the evolution of an interinstitutional IP mock trial from in-person, to hybrid, to virtual formats and to provide evidence of efficacy for learning malpractice law and attaining IP objectives. The aim is to provide guidance for simulation educators who wish to undertake a similar endeavour.

## Methods

The mock trial was established as an annual interinstitutional IPE event in 2018 by a state-supported

higher education system health sciences campus and law school. The academic health centre consists of five colleges (health professions, medicine, nursing, pharmacy, public health) and a graduate school. The law school is a leader in hands-on learning to support practice-ready and skills-focused training through full-time and part-time programs. Specific aims of this simulation were to (1) enhance understanding of the medical malpractice and trial process, (2) enhance understanding and application of the Interprofessional Education Collaborative (IPEC) domains (Values and Ethics, Roles and Responsibilities, IP Effective Communication, Teams and Teamwork) and (3) evaluate students' perception of a simulated trial as a learning activity. The course organization committee members included educational subject matter experts (SMEs) for IPE and simulation methodology, law SMEs and administrative/technical support staff.

### Content for the mock trial

Law, IPE and simulation SMEs prepared materials for the mock trial including Case Materials, Jury instructions and Judge instructions (Table 1). This enabled students playing the part of trial participants and jurors to assimilate knowledge prior to the simulation in a flipped classroom approach. In brief, the case pertained to medical malpractice in the field of psychiatry. A young woman was murdered by her long-term boyfriend the day after he was discharged from hospital following a voluntarily admission for depression and suicidal ideation after he and his girlfriend broke up. The young woman's parent brings suit as the Plaintiff. The case centres around whether the Defendant (treating Staff psychiatrist) failed to warn that the patient had expressed a wish to hurt the Plaintiff's daughter, and whether the Defendant's treatment/diagnosis exhibited malpractice. Clinical experts and other healthcare providers involved in the patient's care team served as witnesses. In subsequent offerings, the case evolved to include a trial witness (a healthcare provider caring for the patient's

in-hospital roommate, but not involved in the patient's care) who overheard the patient make comments that were considered threatening to a degree that the provider relayed their concern to the patient's nurse who then referred up to the treating psychiatrist. When this witness was added to the trial, a character witness was removed. This change strengthened the testimony related to IP interactions and communication. Specifically, this allowed focus to be placed on the effect of team communication, hierarchy, respect and team process on the patient outcomes and behaviour.

### Training

IP learners participated in several roles. Law students played the roles of Plaintiff and Defense attorneys. Healthcare professions students played the roles of witnesses. All of the simulated participants (Attorneys, Defendant, Plaintiff, Expert Witnesses, Witnesses) were provided scripts and an orientation to the mock trial process and had several weeks to review the materials. They were educated regarding the principles of law surrounding the case, provided with in-depth background for each character and had access to SMEs for any questions. Additionally, lawyers met with their respective witnesses in the hour just prior to the trial to prepare for the stand and provide coaching and a script for potential cross-examination questioning. A member of the faculty played the role of the trial judge. Other students (healthcare and law) participated in the role of jury members. The jurors had access to written copies of the 'State of Zen' legal considerations and jury instructions to refer to for questions. The judge provided orientation to these items in the trial proceedings.

All facilitators attended a training event on how to facilitate IP simulation events. Following this training, faculty members typically first observed and then were supervised facilitating events until a peer assessment approved them to facilitate alone. During transition to virtual events due to the pandemic, facilitator training for the event was abbreviated to a 1-hour 'crash course' in the week preceding the event. The crash course provided an overview of the event flow, anticipated reactions/responses from participants and facilitated debriefing responsibilities. The trial event used the brief-simulation-debrief model, with facilitators educated on how to utilize the Plus/Delta debrief method [20].

### Traditional in-person mock trial

The mock trial learning events were conducted in-person in April 2018 and April 2019. The events took place in a mock courtroom at the law school with a Plaintiff, Defendant, their respective law team and witnesses, and a presiding judge. The judge role was played by a faculty member who is a lawyer. The Defendant, Plaintiff, witnesses and expert witnesses were played by healthcare students, and the Defense and Plaintiff legal teams were law students. Additional healthcare professional learners acted as jury members. Jurors were divided into groups of 8–10 and sat in the audience of the courtroom. An orientation introduced the context and history of the event design, reviewed IPEC domains and patient- and family-centred core principles

**Table 1:** Details of case materials

<b>General</b>	Complaint, including background facts and details of first and second causes of action
<b>Materials for the Plaintiff</b>	Affidavits of the Plaintiff and Plaintiff's expert witness and material witness, CV of expert witness
<b>Materials for the Defendant</b>	Affidavits of the Defendant and Defendant's expert witness, CV of expert witness
<b>Clinical Documentation</b>	Notice of Privacy Practices of the Healthcare System Encounter notes Discharge summaries
<b>Juror Materials</b>	Jury instructions Medical Malpractice State of Zen law education Confirmation that rules of evidence are not in effect Details regarding timings and timetable

and provided a brief agenda for expectations before the trial began.

The judge opened the trial, followed by opening statements of both the Defense and Plaintiff teams. The law students then presented evidence, performed cross-examination of witnesses and presented closing statements. The judge then provided jury instructions and adjourned for deliberation. Jurors were given 25 minutes for deliberation, observed by a facilitator. Each jury elected a fore-person responsible for delivering the verdict to the full group of trial participants and juries. A final verdict was then determined based on the majority number of juries determining for/against a finding of malpractice. While juries were in deliberation, trial participants (lawyers and witnesses) debriefed the trial process as a group.

Event debriefing occurred in the courtroom following the final verdict. Debriefing explored the rationale behind each group’s verdict and identified factors that were important in the deliberation process. Learners were provided with three discussion questions during their deliberations in order to provide focus for the debriefing discussion (Table 2). IP healthcare and law student learners were able to learn from, with and about each other during this process, and the law students gained important feedback on their performance from the judge, witnesses and jurors.

**Transition to the virtual event**

After two offerings using this format in Spring 2018 and Spring 2019, the simulation was expanded with a hybrid component for participation in Fall 2019. IP cohorts of healthcare and law students participated in the mock courtroom and two groups of students, advanced nursing and nuclear medicine imaging sciences, participated via connection on a digital video platform. The two online programs participated in IP juries in virtual breakout rooms parallel to students in the courtroom. The simulation was not offered in 2020 due to disruptions from COVID-19 when most in-person educational events were suspended. In order to transition the mock trial learning event effectively to a virtual platform, a planning committee was convened. The goal was to continue this large-scale simulation to provide opportunity for malpractice content education, IP learning for healthcare and law students, and participation from additional geographically distant institutions.

In 2021, the mock trial was revised to a virtual delivery format for all students participating as jurors. Further, participation was expanded to include two additional members of the Arkansas IP Education Consortium (ARIPEC),

**Table 2:** Three questions to guide jury debrief

Question	
1.	Was there a common initial verdict in your jury?
2.	What swayed your decision if there wasn’t an initial verdict?
3.	If you could not establish a consensus, what was the sticking point?

the University of Central Arkansas (UCA) and Harding University (HU). UCA is a public university offering a variety of health professions programs through the College of Health and Behavioral Studies. HU is a private, Christian university offering undergraduate and graduate healthcare programs through the Center for Health Sciences.

The materials for the in-person events were utilized and a framework for the event created (Table 3). Additional to the in-person schedule, ‘behind the scenes’ planning was required to ensure that the technical aspects of the session proceeded smoothly. In this format the lawyers, witnesses and judge presented the trial from the mock courtroom. All jurors watched via a digital video platform. The virtual plan hosted all learners in the main room for the brief and trial proceedings. A camera was placed in the courtroom to facilitate connection between the trial participants, who were socially distanced and masked, and the learners participating as jurors. Following the case presentation and jury instructions, virtually connected health professions and law students were split into IP juries in breakout rooms to deliberate and reach a verdict. A facilitator observed this process and provided reminders for time limits. All jurors and facilitators were returned to the main room in order to reach a final overall verdict and to debrief.

Student participants for each event offering came from several methods of entry. Some selected the mock trial simulation from a list of semester offerings. Others were offered participation as a class assignment. Law students were volunteers from several classes or participants from the school’s trial team. Facilitators for the simulation included the faculty workgroup that designed the simulation and trained IPE faculty facilitators. A virtual ‘crash course’ was created by the Office of IPE for this event. All facilitators met for an hour virtually in order to run through the pre-course materials, learning objectives, timetable and structure of the event and facilitation plans and included time for questions and troubleshooting. At the start of the mock trial, there was an additional ‘huddle’ to provide a pre-brief for all course organizers and facilitators. Particular emphasis was placed on illustrating efforts made to ensure psychological safety within this learning activity.

**Evaluation of efficacy of the virtual mock trial**

All learners completed a pre-assessment and, following the trial, an evaluation of their perceived knowledge and opinion of the learning experience. Evaluation questions are shown in Appendix 1. To assess the efficacy of the experience, we compared student evaluations from in-person (Spring 2018 and Spring 2019), hybrid (Fall 2019) and virtual (Spring and Fall 2021) events. Quantitative data consisted of pre- and post-assessment surveys. The pre-assessment survey consisted of demographics and the IP Collaborative Competency Attainment Survey (ICCAS). The post-assessment survey repeated the ICCAS and added a 5-point Likert assessment for items for simulation methodology, IP learning goals and overall impression of the activity. The ICCAS instrument consists of 20 questions that measure perception of skill across a 7-point Likert scale in six domains: communication, collaboration, roles

**Table 3:** Schedule for virtual mock trial

Time (pm)	Event (Speaker)	Duration	Behind the scenes
5:30–5:50	Facilitator Pre-Huddle	20 minutes	
5:50–6:00	Open Zoom link to students	10 minutes	
6:00–6:15	Welcome to IPE (IPE staff) State of Zen Law (Law staff)	15 minutes	MAIN ROOM
6:15–6:25	Opening Statements to Jury (Attorneys)	10 minutes	MAIN ROOM
6:25–7:05	Plaintiff's Case Presented	40 minutes	MAIN ROOM
7:05–7:35	Defendant's Case Presented	30 minutes	MAIN ROOM
7:35–7:45	Closing Statements (Attorneys)	10 minutes	MAIN ROOM
7:45–7:55	BREAK	10 minutes	
7:55–8:00	Jury Instructions (Judge)	5 minutes	MAIN ROOM
8:00–8:05	Three questions for your jury deliberation (IPE/Law Staff)	5 minutes	MAIN ROOM
8:05–8:25	Jury Deliberations	20 minutes	Breakout Rooms 8:10 5-minute reminder for verdict 8:15 start discussion questions
8:25–8:35	Verdicts Delivered	10 minutes	MAIN ROOM
8:35–8:50	Debriefing Discussion & Jury Process Discussion Questions	15 minutes	MAIN ROOM
	Open Q&A		MAIN ROOM
	Add takeaways/gratitude in the chat		MAIN ROOM
8:40	Facilitator Debrief		

and responsibilities, collaborative patient-family-centred approach, conflict management/resolution and team functioning [21]. Qualitative data were collected with two open response questions, *What aspects of the learning experience did you find most valuable?* and *Please share any other comments about this learning activity.* Pre- and post-assessments were administered on paper at the in-person simulation events in 2018 and 2019. In the virtual offerings, assessments were delivered as an online link provided before and after completion of the simulation via a course management system (UAMS) or an email (Bowen, UCA and HU). Qualitative analysis was conducted to include an 'organic and rich description from student comments regarding learning' [22]. The learner statements from the two open-ended questions were compiled into a database for analysis. A constant comparative approach with open coding was utilized in order to define themes [23]. A sample of 50 statements were independently reviewed by two separate coders to identify keywords or phrases to define themes. Discussion between the coders regarding themes allowed consensus to be achieved for the categorization structure and the subsequent remaining themes. Coders met regularly to resolve any discrepancies identified. The number of response statements per theme was also recorded.

## Results

### Demographics of learners

The in-person mock trial took place in April 2018, April 2019 and October 2019 (Figure 1). The October 2019 hybrid event also included two groups of online learners from advanced nursing and nuclear medicine imaging sciences. The virtual mock trial took place in April 2021 and October 2021. A total

of 386 learners participated in the mock trials with numbers and professions for in-person, hybrid and virtual events shown in Table 4. The virtual events included learners from 19 professions across four institutions, and 12 IP facilitators.

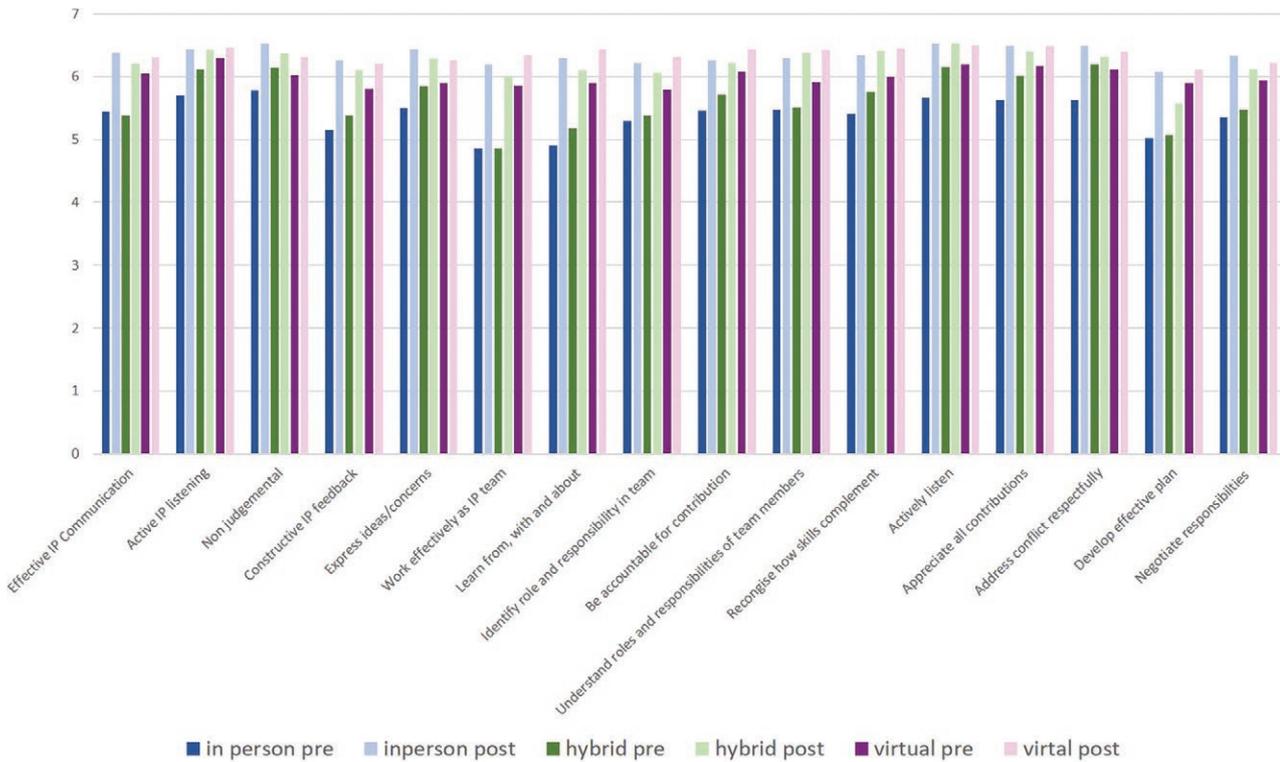
### Learner evaluation

For the in-person, hybrid and virtual events there was a global improvement in ICCAS scores on event completion, compared to pre-assessment (Figure 1). There was no difference in competency improvement when the three delivery modalities were compared. The number of participants who 'agreed' or 'strongly agreed' that the learning event helped them apply their knowledge and develop communication and reasoning skills was not different among the virtual, hybrid and in-person events.

Regarding the psychological safety of the in-person, hybrid and virtual debriefing environments, respectively, 93%, 95% and 96% learners 'strongly agreed' or 'agreed' that the facilitator made them feel at ease during the debriefing. When considering engagement of learners in the debrief, 93% 'agreed' or 'strongly agreed' that learners were actively engaged in discussion compared to 96% (hybrid) and 91% (virtual) learners. The majority of learners in all environments felt the learning event demonstrated the ability of IP collaborative practice to prevent malpractice lawsuits (91%, 95% and 97%, respectively, 'agreed' or 'strongly agreed'). Learners in all environments felt these events were valuable and improved their comfort for participating in a medical malpractice trial in the future (Figure 2).

Qualitative analysis of responses to the question 'what aspects of the learning experience did you find most valuable?' included several themes: exposure to other

**Figure 1:** Pre- and post-intervention learner IPEC competency assessments.



professions and perspectives, enjoyed/helpful/best IPE experience, collaboration and teamwork, identifying roles and responsibilities, communication, case delivery/format, legal process, discussion/debriefing and opportunities to improve (Table 5). Representative quotes include: ‘as a law student it was interesting to see what laypeople take away from the evidence...’, ‘watching the process of a mock trial provided insight into the litigation process’, ‘the most valuable experience is hearing other people’s perspective’, ‘The most valuable aspects were how the law works in malpractice, and the perspectives from the different health care professionals. I also learned about the gap between law and medicine’, ‘The debriefing time was the most valuable component of this event because it allowed me to better understand how vital IP teamwork is. The actual case and watching how a law trial went was also an interesting experience’. Additionally, a prominent theme from learner evaluations of the virtual event was thanks for the opportunity to participate in any IP education, with recognition of the fact that providing this simulation education on a large scale was challenging during the pandemic.

With regard to responses to ‘please share any other comments about this learning activity’, opportunities to improve included timing issues, specifically related to the time of day/length of the event or an increased amount of time for the jury deliberations and discussions, and a desire for more case evidence for consideration. Issues with audio quality were mentioned infrequently by virtual learners.

**Implementation specific results**

Implementation of the virtual event required additional technical support to be present both within the simulated

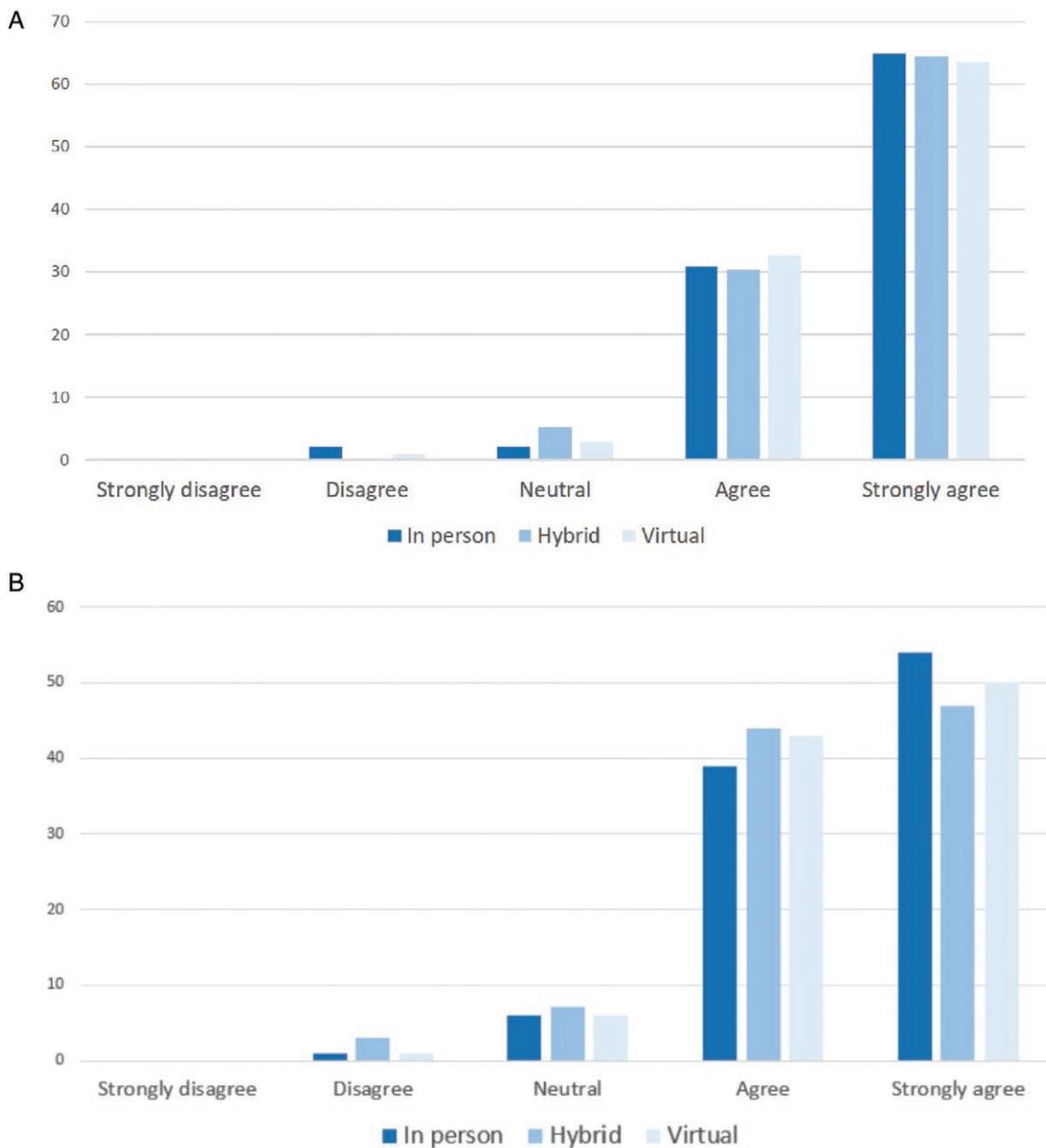
trial room and in the digital video platform. Additionally, there was a requirement for a greater number of facilitators of the event, necessitating virtual training implementation and virtual crash course utilization. Despite those challenges of the platform, the ease of collaboration virtually meant that both faculty and learners could participate across geographical barriers, the implication was that a greater number of institutions and professions could enhance the IP learning experience.

**Discussion**

The personal and professional effects of a medical malpractice trial on health care professionals can be significant and yet, during both undergraduate and postgraduate education, there is little formal education for most professions, with minimal IP education in particular. Learning from, with and about law professionals and other healthcare professionals is crucial to the development of knowledge, skills and attitudes to participate effectively in a medical malpractice environment. We demonstrate that during a time of pandemic and social distancing, an IP, interinstitutional mock medical malpractice trial can evolve from an in-person to virtual format with equivalent efficacy for perceived improvement in learner confidence, knowledge and IPEC competencies. More than this, the virtual format facilitates interinstitutional and IP collaboration to a degree not afforded by the in-person experience.

During the initial phases of the pandemic, healthcare educators were required to rapidly transition from in-person events to the virtual platform with speed being the primary driver. In this third calendar year of the COVID-19 pandemic, it is important to place focus on identification of events that can be effective for learning when taught via a virtual

**Figure 2:** Global evaluation of learning events; learner response to: (a) Overall this was a valuable educational activity. (b) I feel more comfortable being able to participate in a medical malpractice trial after this activity.



**Table 4:** Number and profession of learners for each mock trial learning event by modality

	In-person (April 2018, April 2019)	Hybrid (October 2019)	Virtual (April 2021, October 2021)
Health professions	6	6	28
Nursing	14	10	83
Medicine	25	7	7
Law school	32	23	27
Pharmacy	21	30	17
Public health	4	1	3
Graduate school	0	0	42
<b>Total</b>	<b>102</b>	<b>77</b>	<b>207</b>

platform, and why. Determining which events are effective virtually can enhance our simulation education toolkit. The push the COVID-19 pandemic has provided to increase virtual learning may improve diversity of our pedagogy to the benefit of our learners. Ease of access to virtual events is important and adheres to the Universal Design for Learning principles of providing multiple means of engagement for students to benefit from their learning experience [24,25]. Increased accessibility of virtual educational events may also increase accessibility to faculty and widen the pool of expertise and quality of the event.

Combining IP healthcare learners offers the opportunity for students to appreciate different perspectives and benefit from complementary lived experiences. The IPEC competencies also model this approach. In this mock trial event, healthcare professional learners also had the opportunity to learn from the law students within the

**Table 5:** Results of qualitative analysis of learner responses to the questions: *What aspects of the learning experience did you find most valuable? Please share any other comments about this learning activity.*

Theme	In-person Number (%) respondents	Hybrid Number (%) respondents	Virtual Number (%) respondents
Exposure to other professions and perspectives	15 (12)	26 (23.9)	61 (22.4)
Enjoyable, helpful, best IPE experience	31 (24.8)	25 (22.9)	62 (22.8)
Collaboration and teamwork	4 (3.2)	3 (2.8)	13 (4.8)
Identifying roles and responsibilities	16 (12.8)	7 (6.4)	41 (15.1)
Communication	9 (7.2)	14 (12.8)	14 (5.1)
Case delivery and format	19 (15.2)	4 (3.7)	16 (5.9)
Legal process	16 (12.8)	14 (12.8)	21 (7.7)
Debrief and discussion	6 (4.8)	7 (6.4)	24 (8.8)
Opportunities to improve	9 (7.2)	9 (8.3)	20 (7.4)

experience. Qualitative analysis of student feedback revealed this was important for both parties. The law students in particular were enriched by the chance to appreciate a ‘lay’ perspective of their arguments, but also to obtain feedback from healthcare professionals on their style and approach in presenting their arguments. Large-scale simulated mock trials give an important opportunity for reflection and awareness prior to experiencing these in real life.

One major concern for transitioning simulation events virtually is the safety of the learning environment. Simulation learning events rely on learners and faculty working together to ‘buy in’ to the fiction contract and ‘Vegas rules’ (what happens here, stays in this room and is not discussed outside of this learning experience) and committing to fostering a psychologically safe place to learn. As events transition to the virtual platform, especially on a large scale such as this mock trial, it is important for educators to be intentional about their commitment to these principles. The special challenges of debriefing through a computer interface have been described utilizing the community of inquiry framework and the three key elements – social presence, teaching presence and cognitive presence [26]. By harnessing this approach, we have demonstrated it is possible to achieve equivalence in terms of psychological safety of the learning environment when in-person, hybrid and virtual large-scale simulation events are compared.

Learner feedback demonstrated that across the event evolution, learners consistently appreciated the opportunity to gain IP learner perspectives, to experience a medical malpractice trial before participating in one in real life and to learn more about medical malpractice law. Themes that emerged in feedback for the hybrid and virtual events included appreciating collaboration and communication or discussions, which would suggest learner connections and teamwork are not lost on the virtual platform during this simulation experience. Timing and length of event issues were reported more frequently in the virtual event, however, and may be representative of online or screen ‘fatigue’ experienced by many learners and faculty 2 years into this

pandemic. Consideration should be mindful of this finding in future events as we seek to determine optimal timing and organization of breaks to maximize the IP, interinstitutional interactions afforded by the virtual platform and reduce fatigue.

Our work has limitations. On qualitative analysis the participants in the 2021 event reported higher levels of enjoyment or benefit from the event compared to the in-person cohorts. There may be response bias associated with wishing to please faculty during these difficult times, and the learners may also perceive IP events more favourably if they have been relatively deprived of interactive educational opportunities in other coursework due to virtual transitions necessitated by the pandemic. Further, in deference to the difficulties faced by learners and faculty alike at this time, facilitators elicited responses to the question ‘what are you thankful for’ in the online chat as the virtual event concluded, which may have influenced a positive frame of mind when providing responses to the post-event evaluation.

When the results of the ICCAS are considered, we notice a relatively high pre-assessment Likert score for all domains, with a mean of 5–6 for most variables. This may be because the students enrolled in these mock trials were intermediate level students who had completed the ‘exposure’ IPE education locally and were now in the ‘immersion’ phase of this education. Consequently, these results may mask a higher increase in Likert scores on post-event evaluation that may be seen for more novice IPE learners.

In addition, we enrol students from local institutions, and therefore, the wider applicability of these results nationally may be limited. Despite this, we include four different institutions and 19 professions, which is the largest and most diverse published cohort of mock trial participants. Further, we present results from a limited number of sessions of the varying formats. However, we do demonstrate that student improvement in confidence with the IPEC competencies and the global evaluation is stable over event evolution with a cohort of more than 300 learners. As we have demonstrated similar efficacy of the

virtual, hybrid and in-person events, there is no reason to believe the virtual evaluations will not remain stable.

Lessons learned during this process include the benefits of adaptability for a simulation event and embracing unexpected opportunities to maximize the potential for an event evolution mandated by a global pandemic. Adaptability of the course organizers and faculty is key to this. Engagement with *ad hoc* virtual education for faculty to prepare for the hybrid and virtual format of events is critical for events utilizing educational technology to run smoothly. Essential to this is the demonstration of gratitude and appreciation for faculty and learner patience and buy-in as the organizers pivot events to the best of their capability. Highlighting benefits such as increased potential for rich IP learning due to the ease of interinstitutional collaboration is important, as is identification of areas of weakness that can be addressed in future iterations of the event. With this in mind, future work could focus on assessment of efficacy of fully virtual trials, with virtual witnesses, judge, defence and plaintiff teams, and should also seek to assess the efficacy of more expansive interinstitutional collaborations.

## Conclusion

A large-scale interinstitutional virtual mock medical malpractice trial enables IP learning. Virtual and hybrid learning environments can have equivalent high efficacy for perceived learning and psychological safety as an in-person format. As healthcare professional educators navigate peri- and post-pandemic times, large-scale virtual simulation-based IP events may be an attractive option to increase accessibility for both learners and expert faculty without compromising quality.

## Declarations

## Acknowledgements

We recognize the dedication and commitment of our facilitators at the University of Arkansas for Medical Sciences, Harding University, the University of Central Arkansas and the University of Arkansas at Little Rock and thank them for their time and expertise. We thank Sheila Thomas, Associate Professor in the Department of Academic Affairs at the University of Arkansas for Medical Sciences Library for her help with the literature search. Finally, none of this work would be possible without the tremendous support of Wendy McCloud, IPE Manager, and Misty Besancon, Program Administrator, in the Office of IPE.

## Authors' contributions

None declared.

## Funding

No funding was received to assist with the preparation of this manuscript. The authors have no relevant financial or non-financial interests to disclose.

## Availability of data and materials

None declared.

## Ethics approval and consent to participate

The local Institutional Review Board granted an exception for this work as the information is collected as part of routine programmatic evaluation. Informed consent was not applicable to this process for that reason.

## Competing interests

None declared.

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**APPENDIX 1**

1. Please fill in the circle that most accurately reflects your opinion. Please rate your ability for each statement using the scale: 1=STRONGLY DISAGREE; 2=MODERATELY DISAGREE; 3=SLIGHTLY DISAGREE; 4=NEUTRAL; 5=SLIGHTLY AGREE; 6=MODERATELY AGREE; 7=STRONGLY AGREE; na=not applicable

(learner completes for before and after event)

<b>COMMUNICATION</b>
Promote effective communication among members of an IP team*
Actively listen to IP team members' ideas and concerns
Express my ideas and concerns without being judgmental
Provide constructive feedback to IP team members
Express my ideas and concerns in a clear, concise manner
<b>COLLABORATION</b>
Work effectively with IP team members to enhance legal considerations
Learn with, from, and about IP team members to enhance legal considerations
<b>ROLES &amp; RESPONSIBILITIES</b>
Identify and describe my abilities and contributions to the IP team
Be accountable for my contributions to the IP team
Understand the abilities and contributions of IP team members
Recognize how others' skills and knowledge complement and overlap with my own
<b>CONFLICT MANAGEMENT/RESOLUTION</b>
Actively listen to the perspectives of IP team members
Take into account the ideas of IP team members
Address team conflict in a respectful manner
<b>TEAM FUNCTIONING</b>
Develop an effective care/research** plan with IP team members
Negotiate responsibilities within overlapping scopes of practice

\*The patient's family or significant other, when appropriate, are part of the IP team.

\*\*The term "care" includes intervention, treatment, therapy, evaluation, etc.

2. Please rate the items below using the scale: 1=STRONGLY DISAGREE to 5-STRONGLY AGREE

Simulation and Debriefing
This learning experience was valuable
This simulation helped me apply my knowledge
This learning experience helped me gain confidence in my ability to participate on a team in legal proceedings
This learning experience developed my communication skills
This learning experience developed my reasoning skills
This learning experience developed my decision making skills
The health professions witness played their roles well
The facilitator(s) made me feel at ease during the debriefing
Reflection on my performance helped me to learn
During the debriefing, learners were actively engaged in the discussion
I learned strategies for improving performance on a team
Important steps to apply to teamwork in legal proceedings were summarized
The debriefing session was helpful in my development as a professional
Health Professions Malpractice Trial
I feel more comfortable in my ability to participate in a health professions malpractice trial than I did prior to this activity
This activity demonstrated the value of interprofessional collaborative practice and jury deliberation
This activity demonstrated the value of interprofessional collaborative practice to prevent malpractice lawsuits
Overall
Overall, I believe this was a valuable education activity

3. What aspects of the learning experience did you find most valuable?

4. Please share any other comments about this learning activity:

Please fill in the bubble to select your College/Year in Program (indicate all that apply):

COLLEGE	PROGRAM	YEAR	COLLEGE	PROGRAM	YEAR
Health Professions			Law School		
Nursing			Pharmacy		
Medicine			Public Health		