


# Death notification: a digital communication platform for simulated patient-based training with medical students

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## INTRODUCTION

Medical simulation experiences, focused on enhancing essential communication skills, provide high value to trainees. These communication-based simulations often require little equipment and instead use trained faculty facilitators who can impart clinical significance and expertise to trainees. Teaching communication skills and techniques remotely is theoretically possible but has been largely unexplored in medical education.<sup>1</sup> The COVID-19 pandemic and the subsequent restrictions imposed by shelter-in-place orders and social distancing created a need to expand traditional training methods and experiment with remote simulation training for communication skills. In this brief report, we explore the experience, outcomes and barriers to implementing a simulated communication skill curriculum focused on death notification to a cohort of remote medical students.

## PROBLEM ADDRESSED

A 'readiness for residency, simulation-based competency assessment' 2-week elective class was scheduled as a capstone experience for fourth-year Michigan State University College of Osteopathic Medicine (MSUCOM) students during their final month of training (n=12 students). One week prior to course initiation, Michigan State University mandated all coursework be conducted on a digital communication platform (Zoom®) due to 'shelter-in-place' and social distancing orders designed to quell the COVID-19 pandemic. Faculty co-directors (MH, BG) were faced with a complete course redesign for a simulation heavy curriculum, requiring significant in-person instruction. Some content was not adaptable to format revisions; however, other curricular elements were amenable to a pedagogy change that allowed students to observe shelter-in-place restrictions. One such activity was a death notification training module using the GRIEV\_ING mnemonic.<sup>2</sup>

## WHAT WAS TRIED

We modified a well-designed previously studied live simulation programme, the GRIEV\_ING educational method, which has been demonstrated to improve death notification skills in emergency medicine interns and paramedics to a digital communication platform.<sup>3</sup> All content was identical to the in-person version; however, learners were remote; separated by hundreds of miles from the simulated patients (SPs), faculty and lecturer. Zoom and email were used to schedule students with the SPs, create the 'door note' introducing

the student to the patient and the scenario, and record the interactions. For both the in-person and digital communication platform teaching of the module, the educational content session was preceded by a written knowledge pretest, a self-efficacy survey and an individual performance assessment with an SP to deliver a death notification. This pre-assessment of knowledge, self-efficacy and skill was followed by a 1-hour content lecture on how to use the GRIEV\_ING mnemonic to deliver a more effective death notification. Students were encouraged to interact with SPs with questions and answers. Following the lecture, groups of students were trained to use the GRIEV\_ING method using a 1-hour rapid cycle deliberate practice session (see figure 1). In this session, students interacted with an SP to deliver the death notification while their performance was coached by simulation faculty (n=4) using the rapid cycle debrief method.<sup>4</sup> This session was immediately followed by a post-assessment in which the individual student delivered a death notification to another SP. The training ended with a written post-test and the self-efficacy survey. Pretest and post-test, cases, door notes, faculty and SPs participated in both the in-person and the digital communication platform process, and the timing was kept identical. The participating faculty all completed a 3-hour rapid cycle deliberate practice training session. The SPs completed their standard 2-hour training session of the case and separate 1-hour rehearsal prior to the execution of the event. (for cases, see online appendix 1). These assessments and data were delivered, collected and maintained, via the D2L learning management system in use at MSUCOM. All study data were anonymised, and the study was declared 'not human subjects research' by the Michigan State University Human Research Protection Program of the Institutional Review Board, study # 4203.

## WHAT LESSONS WERE LEARNED

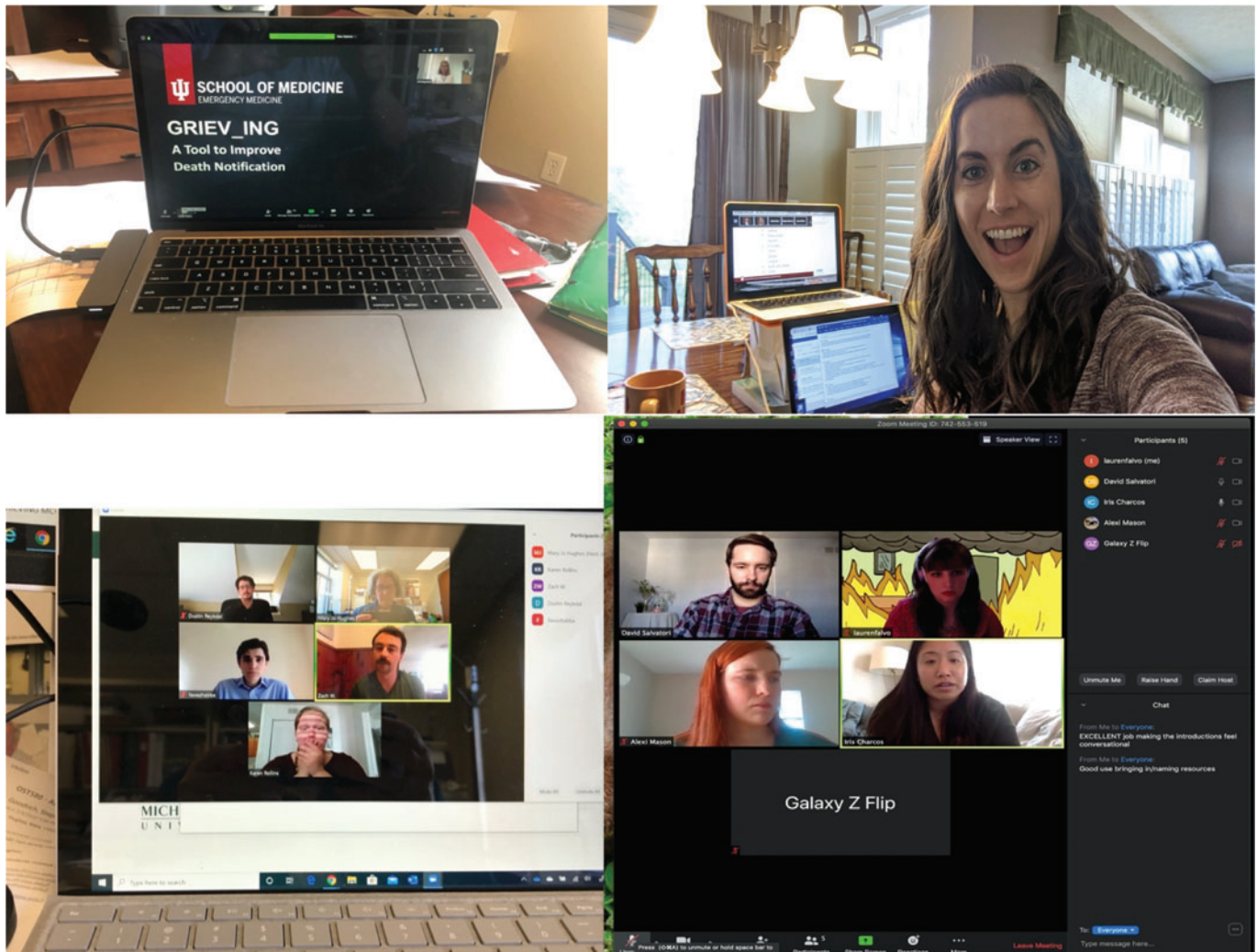
The student feedback regarding this curriculum was overall positive. Students enjoyed the expert content and small-group classroom feel provided by all aspects of the curriculum. The learners also appreciated the opportunity to practise this difficult communication with trained SPs, which provided realism during the scenarios.

Fully relying on technology to complete the curriculum did present some challenges. There is significantly more organisational set-up required to implement each



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**Figure 1** Death notification training via Zoom demonstrating two phases of the study.

of the Zoom interactions, as trainees, SPs and faculty must be invited to the Zoom meeting. In addition to set-up for the separate Zoom meetings timed, emails were used in place of door notes to deliver content in a just in time manner immediately before their entry into the SP's Zoom room. Once the trainee entered the room, the SP was required to record it for later review, and this process was repeated for each of the sessions. Much of this administrative burden can be shifted to non-faculty members in future iterations; however, in this brief trial faculty completed this activity. Additionally, we noted that the ability to effectively pre-brief students was limited, as most of the instructions were provided through word documents which did not allow the opportunity to clarify nuances of the curriculum and order of the events. In the future, this will be adjusted by adding clarifying statements to the introduction documents, and potentially expanding the initial Zoom meeting to provide a detailed pre-brief and use the waiting room feature for door notes.

The inability to touch the SP, which is a powerful tool, particularly in osteopathic medicine, was noted to be absent, and this impacted the ability of faculty to both model and evaluate physical behaviours such as empathic gestures and posture.

## CONCLUSION

We have demonstrated that a digital communication platform can be used to effectively deliver difficult communication

content such as death notification. This material was taught within the same time and with similar outcomes as the in-person experience held in a simulation laboratory. This digital communication platform model has the potential to demonstrate considerable cost savings by using platforms such as Zoom and mitigating the need for rental of the simulation laboratory. Faculty should feel confident that remote communication simulations can be implemented effectively without loss of student engagement and skill acquisition.

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