RE: LOW-FIDELITY SIMULATION IN GLOBAL AND DISTRIBUTED SETTINGS

To Dr. Renouf: Thank you for your thoughtful response to our manuscript, "International Federation for Emergency Medicine Model Curriculum for Continuing Professional Development."[1] You make several excellent points and we appreciate your insights. We are also thankful for the opportunity to respond to your statements, clarify the intent of our manuscript, and further this important discussion.

First, no manuscript of this type can cover every eventuality as to types of simulation experiences, and no matter what type of simulation is selected, sound educational principles must underpin the educational program in which it is used.

We do believe that our premise that high-fidelity simulation is the most robust type of simulation for this cohort of advanced learners is valid; however, your comments suggest that we could have achieved greater clarity as to our intent in the use of the word "fidelity." Our reference to high-fidelity simulation was intended to refer to the "fidelity" of the simulation type rather than the "fidelity" of equipment. For example, the fidelity of the simulation can be high even when low-fidelity manikins are used in in-situ simulation. Maran and Glavin agree with this premise and when discussing the engineering fidelity of the equipment state, "Of much greater importance is the concept of psychological or functional fidelity. This is the degree to which the skill or skills in the real task are captured in the simulated task. The level of fidelity required depends on the type of task and stage of training and influences skills transfer."[2]

Although the use of all forms (low- and high-fidelity) of simulation is consistent with best practices in CPD, such as mastery learning and deliberate practice, it should be aligned with the curricular learning outcomes/competencies for it to be effective. Low-fidelity simulation is more useful for the acquisition of new skills or more basic mechanical skills. Given that a component of CPD is around reinforcement and refinement of existing skills, high-fidelity simulation better fits these needs. While lower-fidelity simulations can apply to these situations, they may be less relevant, though we agree with the author that they are still better than nothing and certainly better than a less interactive form of education. We also agree that the often better portability of low-fidelity simulators and simulations means that they are useful and available in any setting, not just low-resource ones, and should be deployed when possible. As with all educational programs, there needs to be a balance between cost, availability, the desired outcome, and the ability of the simulation to achieve it.

Again, we thank the authors of this letter for their contribution[3] and for their engagement with global emergency medicine education.

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