

Administrator questionnaire

Simulation-based medical education (SBME): A technique to replace, augment or amplify reality with guided experiences, often immersive, that evoke or replicate substantial aspects of the real world in an interactive fashion.

Consent form

Participant characteristics

- Name ☐ ☐
- Position ☐ ☐
- Medical school name ☐ ☐
- Phone number ☐ ☐
- E-mail ☐ ☐

SBME implementation and objectives

- SBME is used in my school ☐ yes ☐ no (end the questionnaire)
- Communication skills ☐ yes ☐ teaching ☐ evaluation/feedback/certification ☐ research ☐ no
- Decision making ☐ yes ☐ teaching ☐ evaluation/feedback/certification ☐ research ☐ no
- Leadership ☐ yes ☐ teaching ☐ evaluation/feedback/certification ☐ research ☐ no
- Medical knowledge ☐ yes ☐ teaching ☐ evaluation/feedback/certification ☐ research ☐ no
- Patient care ☐ yes ☐ teaching ☐ evaluation/feedback/certification ☐ research ☐ no
- Professionalism ☐ yes ☐ teaching ☐ evaluation/feedback/certification ☐ research ☐ no
- Psychomotor tasks ☐ yes ☐ teaching ☐ evaluation/feedback/certification ☐ research ☐ no
- Team management ☐ yes ☐ teaching ☐ evaluation/feedback/certification ☐ research ☐ no

SBME obstacles

- Administration system ☐ Insufficient financial support ☐ No administration system ☐ No simulation center ☐ none of above
- Space shortages ☐ Controlled room ☐ Debrief room ☐ Lecture room ☐ Observation room ☐ Office room ☐ Storage room ☐ Training room ☐ none of above
- Simulators shortages ☐ Cadaver ☐ High fidelity mannequin ☐ Part task trainer ☐ Screen-based simulation ☐ Standardized patients ☐ none of above
- Faculty shortages ☐ Course director ☐ Educator ☐ Instructors ☐ Officer ☐ Researcher ☐ Researcher assistant ☐ Simulation technician ☐ Standardized patient trainer ☐ none of above

Attitude regarding SBME

Likert score: 1=strongly disagree; 2=disagree; 3=neither agree nor disagree; 4=agree; 5=strongly agree

- SBME is essential to the medical curriculum ☐ ☐
- Integration of SBME into the medical curriculum is necessary ☐ ☐
- SBME should be encouraged in medical schools ☐ ☐

Instructor questionnaire

Simulation-based medical education (SBME): A technique to replace, augment or amplify reality with guided experiences, often immersive, that evoke or replicate substantial aspects of the real world in an interactive fashion.

Consent form

Participant characteristics

- E-mail []
- Age []
- Medical school name []
- Department []

SBME implementation and objectives

- SBME is used in my course(s) [] yes [] no (end the questionnaire)

Any courses for 1st-3rd year medical students

- The expected outcomes of SBME (≥ 1)
[] Improving knowledge [] Improving attitude [] Improving performance [] Improving practice
[] Change patient outcome
- Types of simulators (≥ 1)
[] Cadaver [] High fidelity mannequin [] Part task trainer [] Screen-based simulation
[] Standardized patients
- Teaching characteristics (on average)
 - Teaching duration (hours) []
 - Preparation duration (hours) []
 - Courses per year (number) []
 - Students per class (person) []

Any courses for 4th-6th year medical students

- The expected outcomes of SBME (≥ 1)
[] Improving knowledge [] Improving attitude [] Improving performance [] Improving practice
[] Change patient outcome
- Type of simulators (≥ 1)
[] Cadaver [] High fidelity mannequin [] Part task trainer [] Screen-based simulation
[] Standardized patients
- Teaching characteristics (on average)
 - Teaching duration (hours) []
 - Preparation duration (hours) []
 - Courses per year (number) []
 - Students per class (people) []

SBME obstacles

- faculty [] inadequate [] adequate [] excessive [] no data
- faculty time [] inadequate [] adequate [] excessive [] no data
- faculty training [] inadequate [] adequate [] excessive [] no data
- financial support [] inadequate [] adequate [] excessive [] no data
- available space [] inadequate [] adequate [] excessive [] no data
- simulators [] inadequate [] adequate [] excessive [] no data

Medical student questionnaire

Simulation-based medical education (SBME): A technique to replace, augment or amplify reality with guided experiences, often immersive, that evoke or replicate substantial aspects of the real world in an interactive fashion.

Consent form

Participant characteristics

- Age []
- Gender []
- Medical school name []

SBME objectives and implementation

- SBME experience [] yes [] no (end the questionnaire)
- Learning objectives (≥ 1) [] Clinical procedure [] Communication skills [] Counseling [] History taking
[] Physical examination [] Team management
- Types of simulators (≥ 1) [] Cadaver [] High fidelity mannequin [] Part task trainer
[] Screen-based simulation [] Standardized patients
- Experience and expectations regarding SBME by subject
 - Anatomy experience [] yes [] no; expected SBME [] yes [] no
 - Anesthesiology experience [] yes [] no; expected SBME [] yes [] no
 - Biochemistry experience [] yes [] no; expected SBME [] yes [] no
 - Community medicine experience [] yes [] no; expected SBME [] yes [] no
 - Emergency medicine experience [] yes [] no; expected SBME [] yes [] no
 - Internal medicine experience [] yes [] no; expected SBME [] yes [] no
 - Microbiology experience [] yes [] no; expected SBME [] yes [] no
 - Parasitology experience [] yes [] no; expected SBME [] yes [] no
 - Pathology experience [] yes [] no; expected SBME [] yes [] no
 - Pediatrics experience [] yes [] no; expected SBME [] yes [] no
 - Pharmacology experience [] yes [] no; expected SBME [] yes [] no
 - Physiology experience [] yes [] no; expected SBME [] yes [] no
 - Psychiatry experience [] yes [] no; expected SBME [] yes [] no
 - Obstetrics and gynecology experience [] yes [] no; expected SBME [] yes [] no
 - Ophthalmology experience [] yes [] no; expected SBME [] yes [] no
 - Orthopedics experience [] yes [] no; expected SBME [] yes [] no
 - Otorhinolaryngology experience [] yes [] no; expected SBME [] yes [] no
 - Surgery experience [] yes [] no; expected SBME [] yes [] no
- Expected SBME implementation
 - Expected students per class (people) []
 - Expected duration per week (hours) []
- Essential procedural skills
(Likert score: 1=strongly disagree; 2=disagree; 3=neither agree nor disagree; 4=agree; 5=strongly agree)
 - Advanced life support experience before practice [] yes [] no ; satisfaction scale []
 - Aerosol bronchodilator therapy experience before practice [] yes [] no ; satisfaction scale []
 - Amniotomy experience before practice [] yes [] no ; satisfaction scale []
 - Anterior nasal packing experience before practice [] yes [] no ; satisfaction scale []
 - Arterial puncture experience before practice [] yes [] no ; satisfaction scale []
 - Aspiration of skin/bursa of elbow/ankle experience before practice [] yes [] no ; satisfaction scale []
 - Basic life support experience before practice [] yes [] no ; satisfaction scale []
 - Biopsy of skin and subcutaneous tissue experience before practice [] yes [] no ; satisfaction scale []
 - Blood and blood component transfusion experience before practice [] yes [] no ; satisfaction scale []
 - Breathing exercises experience before practice [] yes [] no ; satisfaction scale []
 - Capillary puncture experience before practice [] yes [] no ; satisfaction scale []
 - Cervical cervix biopsy experience before practice [] yes [] no ; satisfaction scale []

- Cervical cervix polypectomy experience before practice [] yes [] no ; satisfaction scale []
- Wound Debridement experience before practice [] yes [] no ; satisfaction scale []
- Endotracheal intubation experience before practice [] yes [] no ; satisfaction scale []
- Episiotomy and perineorrhaphy experience before practice [] yes [] no ; satisfaction scale []
- Excision of subcutaneous tissue cyst experience before practice [] yes [] no ; satisfaction scale []
- External splinting experience before practice [] yes [] no ; satisfaction scale []
- First aid management of an injured patient experience before practice [] yes [] no ; satisfaction scale []
- Foreign body removal from the vagina experience before practice [] yes [] no ; satisfaction scale []
- Incision/drainage of subcutaneous tissue experience before practice [] yes [] no ; satisfaction scale []
- Insertion/removal of intrauterine device experience before practice [] yes [] no ; satisfaction scale []
- Intradermal injection experience before practice [] yes [] no ; satisfaction scale []
- Intramuscular injection experience before practice [] yes [] no ; satisfaction scale []
- Intravenous fluid infusion experience before practice [] yes [] no ; satisfaction scale []
- Intravenous injection experience before practice [] yes [] no ; satisfaction scale []
- Local infiltration and digital nerve block experience before practice [] yes [] no ; satisfaction scale []
- Lumbar puncture experience before practice [] yes [] no ; satisfaction scale []
- Marsupialization of Bartholin's cyst experience before practice [] yes [] no ; satisfaction scale []
- Measurement of central venous pressure experience before practice [] yes [] no ; satisfaction scale []
- NG tube irrigation and lavage experience before practice [] yes [] no ; satisfaction scale []
- Normal labor experience before practice [] yes [] no ; satisfaction scale []
- Oxygen therapy experience before practice [] yes [] no ; satisfaction scale []
- Papanicolaou smear experience before practice [] yes [] no ; satisfaction scale []
- Pelvic examination experience before practice [] yes [] no ; satisfaction scale []
- Phototherapy experience before practice [] yes [] no ; satisfaction scale []
- Skin traction of limbs experience before practice [] yes [] no ; satisfaction scale []
- Stomal care experience before practice [] yes [] no ; satisfaction scale []
- Strengthening and stretching exercises experience before practice [] yes [] no ; satisfaction scale []
- Stump bandaging experience before practice [] yes [] no ; satisfaction scale []
- Subcutaneous injection experience before practice [] yes [] no ; satisfaction scale []
- Suture experience before practice [] yes [] no ; satisfaction scale []
- Umbilical vein catheterization experience before practice [] yes [] no ; satisfaction scale []
- Urethral catheterization experience before practice [] yes [] no ; satisfaction scale []
- Vaginal packing experience before practice [] yes [] no ; satisfaction scale []
- Venipuncture experience before practice [] yes [] no ; satisfaction scale []
- Wound dressing experience before practice [] yes [] no ; satisfaction scale []
- **Attitude toward SBME**
 (Likert score: 1=strongly disagree; 2=disagree; 3=neither agree nor disagree; 4=agree; 5=strongly agree)
 - Experience with simulation benefits clinical practice. []
 - Use of simulation increased my motivation to learn. []
 - I felt safe during simulation. []
 - I understood the learning goal during simulation. []
 - I was able to utilize prior knowledge during simulation. []
 - I was able to utilize prior skills during simulation. []
 - I was able to evaluate my performance in the simulation. []
 - Simulation-based training improves my teamwork skills. []
 - Simulation-based training improves my communication skills. []
 - Simulation-based training improves my clinical skills and competence. []
 - Simulation-based training improves my critical thinking and decision-making skills. []