Simulation Training in Palliative Care: State of the Art and Future Directions

Dmitry Kozhevnikov DO, Laura J Morrison MD, Matthew S Ellman MD

Background

- Increasing need for palliative care (PC) among patients living with serious illness, however there is a projected shortage of PC specialists
- Experts recommend a multi-faceted approach including educating all clinicians in primary PC skills
- Simulation-based medical education (SBME) is one promising modality to address this educational gap
- We conducted a systematic review of the literature reporting on simulation experiences addressing PC skills for clinical learners in Medicine and Nursing

Methods

- Systematic review of 78 studies
- Search of PubMed, Embase, Web of Science

Search Terms:

- standardized patient simulation training
- interactive learning
- simulation
- structured clinical examination
- OSCE
- hospice
- palliative medicine
- supportive care
- palliative care

Figure 1: PRISMA flow diagram illustrating the selection process of articles

Results

Table 1 Learner characteristics in SBME studies

Learner characteristics	n (%), total n = 78
Profession	
Medicine	59 (76)
Nursing	30 (38)
Social work	5 (6)
Chaplaincy	2 (3)
Unspecified	2 (3)
Trainee level	
Student	38 (49)
Resident	23 (29)
Fellow	14 (18)
Practicing provider*	17 (22)
Not specified	1 (1)
Specialty/subspecialty	n = 40
Internal and family medicine	16 (40)
Critical care	6 (15)
Oncology	5 (13)
HPM	5 (13)
Geriatrics	3 (8)
Nephrology	2 (5)
Pediatrics	8 (20)
PICU	4 (10)
NICU	2 (5)
Oncology	1 (3)
EM†	1 (3)
Cardiology	1 (3)
Surgery	3 (8)
EM	3 (8)
OB-GYN	2 (5)
Neurology	1 (3)

Notes: *Includes licensed, independently practicing physicians, nurses, and advanced practice nurses. †Pediatric EM requires a fellowship after pediatrics, while adult EM does not. Note that percentages may not add up to 100%, as more than one code could be selected for some variables.

Abbreviations: EM, emergency medicine; HPM, hospice and palliative medicine; NICU, neonatal intensive care unit; OB-GYN, obstetrics-gynecology; PICU, pediatric intensive care unit; SBME, simulation-based medical education.

Table 2 Simulation methodology characteristics in SBME studies

Simulation characteristics	n (%), total n = 78
Simulation type	
SP encounter	53 (68)
Simulation laboratory	12 (15)
Role play, sociodrama	8 (10)
Computer-based exercise	6 (8)
Skill focus	
Eliciting treatment preferences	39 (50)
Delivering bad news	32 (41)
Empathic communication	31 (40)
Symptom management	10 (13)
Team communication	5 (6)
Others	8 (10)
Debrief	
Yes	59 (76)
No	19 (24)
Method of simulation assessment	
Participant feedback	48 (62)
Not assessed	17 (22)
Post-simulation OSCE	13 (17)
Patient outcomes	3 (4)

Note: Percentages may not add up to 100%, as more than one code could be selected for some variables.

Abbreviations: OSCE, objective structured clinical examination; SBME, simulation-based medical education; SP, standardized patient.

Results

Key Findings

- Very few studies include social work and spiritual care learners, highlighting a lack of interprofessionalism in PC SBME
- Surgical specialties less commonly utilize palliative care SBME compared to internal medicine, family medicine and pediatrics
- Most common simulation type is the standardized patient (SP) encounter
- Most common skill focus is communication, while symptom management skills are rarely included
- Majority of simulation experiences rely only on participant feedback for assessment, while only 4% utilize patient outcomes

Discussion

- Our study describes the current state of SBME in PC education with a systematic review of the literature
- PC SBME provides a safe space for learners to practice a broad range of skills, most commonly communication skills
- One limitation of our study is publication bias, as our search results only include PC SBME published in peer-reviewed journals
- PC SBME is a tool PC educators can utilize in teaching primary PC skills to learners of various levels of training and professional backgrounds

Future Directions

- Design PC SBME for a broader range of learners to promote interprofessional and team skill building
- Expand skill content to include symptom management education, for example the management of the imminently dying patient
- Incorporate more rigorous evaluation of educational effectiveness, with a shift to include more patient outcomes

References

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Complete list of references available on request
Contact: Dmitry.Kozhevnikov@yale.edu