

ICOSSET 2022

Parallel Session 6:

Following Kern's six-step approach to develop Surgical simulation-based training programs

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Summary

Simulation-based education has grown rapidly in the last decade, with numerous surgical specialties adapting this modality as an adjunct to the apprenticeship training approach. Many training programs are developed however the quality varies across the different fields. Most often, the development of curricula does not follow a systematic educational framework. Instead, training programs are developed and implemented based on local interests, experiences, or available simulation equipment. A six-step approach to curriculum development proposed by Kern et al. was used as a framework for this workshop.

Intended Learning Outcomes (ILOS)

The aims of the workshop were:

1. To understand the importance of following a structured approach to developing simulation-based training programs
2. To learn the different steps to curriculum development following the framework proposed by David Kern and colleagues
3. To enable the course participants to apply these steps when developing training programs in their home institutions

What went well

A total of 27 participants attended our workshop, with 12 attending during the first day, and 15 during the second day. They were divided into three groups, allowing for small group exercises and interactive discussions.

The workshop consisted of lectures and practical exercises on how to perform general needs assessments, establishing goals and objectives (i.e. ensuring competences using valid assessment tools assessment, deliberate choices of what educational methodologies to use, considerations when implementing simulation-based courses and evaluation of the programme.

The participants were introduced to each step and were able to work through a surgical case we have provided during the small group exercises. Flipcharts were provided ahead of time which helped the participants to collaborate and write down their ideas, which were presented in plenum after the allocated time.

In each of the steps, we provided published articles as examples, which inspired the participants to base their work and be guided by already existing literature (not reinventing the wheel), to continue to promote evidence-based simulation-based training programmes and do research in medical education.

Discussions and Learning

The diverse group of participants- from junior and senior trainees to consultants- provided for an interesting and impassioned discussion among the group. Many of the participants have shared their experiences in simulation, either as learners or faculty members. They have learned from the workshop that many of the things they know and do fit one of the steps of Kern's framework. The provision of these six steps provided a framework for the participants to follow when developing simulation-based training programmes.

Take home learning

Following a structured approach to developing your simulation-based training programmes ensures optimal facilitation and interoperability of curriculum design.

Future orientation and possible implementation

With the increasing use of simulation-based training in surgery, we hope to inspire surgical educators, curriculum developers and learners to follow a structured approach to developing evidence-based simulation-based training programmes.