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MEDICINE & DENTISTRY

# Specialist By Day, Generalist By Night - A Needs Assessment Approach For Anesthesiology

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# Conflict of Interest Disclosures

## Dr. Valerie Schulz & Michael Brock

- We have not had in the past 3 years, a financial interest, arrangement or affiliation with one or more organizations that could be perceived as a direct or indirect conflict of interest in the content of this presentation.

# Learning Objective

Following today's presentation attendees should be able to:

1. Summarize the approach taken to identify perceived and unperceived needs within the department of Anesthesia & Perioperative Medicine, Schulich School of Medicine & Dentistry, Western University

# “A Night on call” – For Anesthesiology

- Faculty retreat identified a desire for additional professional development opportunities.
- CPD, Schulich school of Medicine & Dentistry, Western University – Needs assessment
- Anesthesia specialist by day, generalist by night

# Overarching Project Goals

## ‘A night on-call’

Report Identified educational needs of Anesthesia & Perioperative Medicine faculty based on:

1. Expert opinion
2. Learner self-reports

Next Steps – Development of targeted education.

# Needs Assessment Phases

- **Phase 1:** Educational topics for “*A Night On-Call*”
- **Phase 2:** Online Delphi of Anesthesiology experts
- **Phase 3:** Online Qualtrics survey for all Anesthesiology faculty
- **Phase 4:** Deliver personalized reports to participants highlighting topics of strength, and topics where educational opportunities exist.

# Phase 1

- **Methodology:** Committee meeting with subspecialty experts (faculty/educators) in the department of Anesthesia & Perioperative Medicine
- **Outcomes:** A finalized list of **36 topics** (formatted as learning objectives) for the surveys to follow.
- **Theme:** “A Night On-Call”



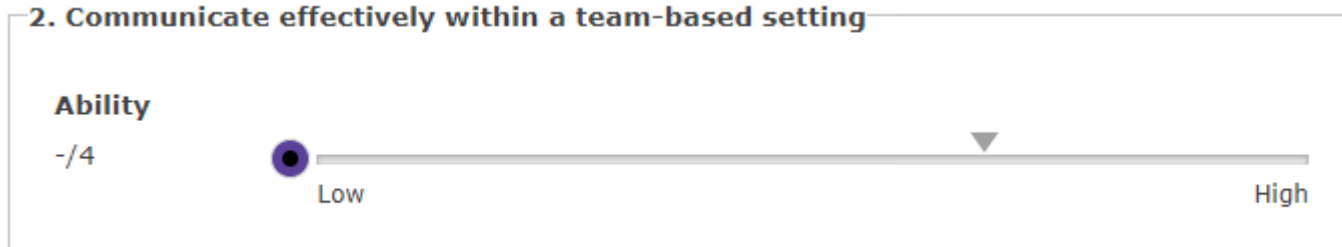
# Phase 2

**Methodology:** 2-round **Delphi** survey of sub-clinical experts (N = 10) on the 36 Topics previously identified (*In Phase 1*).

## Outcomes:

Expert Delphi: Topics scored on expected ability of faculty members

Ex.



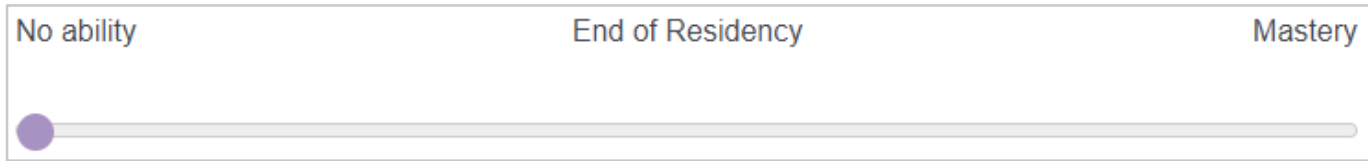
# Phase 3

**Methodology:** Qualtrics survey for faculty members (N = 34) on the 36 Topics previously identified

## Outcomes:

Self-reported for ability and desire to learn for each topic.

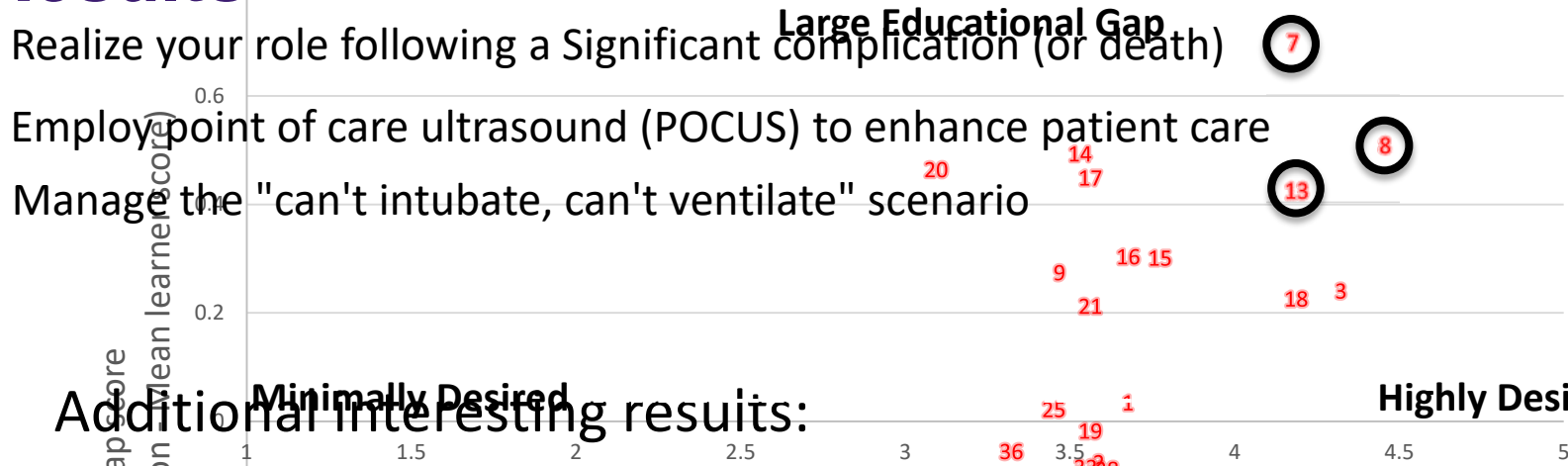
Ex.



# Survey Methods

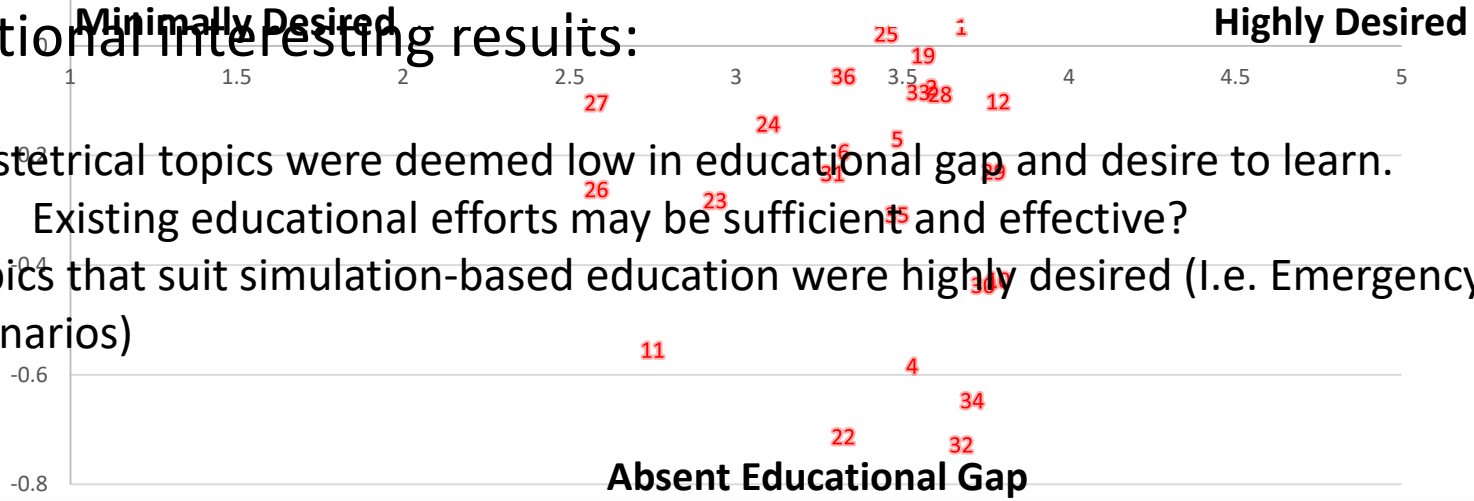
*Comparisons between these surveys allowed for prioritization of educational needs with regards to the 36 topics.*

# Results



## Additional interesting results:

- Obstetrical topics were deemed low in educational gap and desire to learn.
- Existing educational efforts may be sufficient and effective?
- Topics that suit simulation-based education were highly desired (I.e. Emergency scenarios)



# Individualized Learner Reports

- All results are dependent on average Expert scores and average peer scores.
- Strength: Value  $> +0.5$  SD of Peer average
- Opportunity: Value  $> -0.5$  SD of Peer OR Expert average.
- Priority Opportunity: Value  $> -1.0$  SD of Peer AND expert averages.

Strength	At Par	Opportunity	Priority Opportunity
X			
	X		
		X	
			X
	X		

# Individualized Learner Reports

Topic List	Strength	At Par	Opportunity	Priority Opportunity
Manage the "can't intubate, can't ventilate" scenario	X			
Recognize and manage local anesthetic toxicity		X		
Recognize and manage anaphylaxis			X	
Identify and manage Malignant Hyperthermia				X
Insert a cardiac pacemaker		X		

*A partial example of what a report looks like*

- Visualizes how the learners self-reported abilities compare to their peers and the expectations of the experts
- Can aid in the development of personalized learning plans, and potentially self-assessment opportunities (Section-3 credits) if reviewed alongside peers.

# Individualized Learner Report - Data

- 18 Faculty Members desired a report to be generated.
- The topics with the greatest frequency of Priority Opportunity for 'A Night On-Call'
  - Insert a cardiac pacemaker [8/18]
  - Perform pre-op/intra-op transesophageal echocardiogram (TEE) monitoring (e.g. For hemodynamically unstable patients [7/18])
  - Employ POCUS [5/18]
  - Manage obstetrical hemorrhage [5/18]

# So - what's the next step?

With Anesthesia's educational needs identified the next steps...

- **Presenting outcomes at Grand Rounds**  
*[Complete]*
- **Discussion of results with Anesthesia's CPD team**  
*[Complete]*
- **Directing future education and research**  
*[Underway]* - **Can't intubate, Can't ventilate**



# Thanks for listening!

Questions?



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