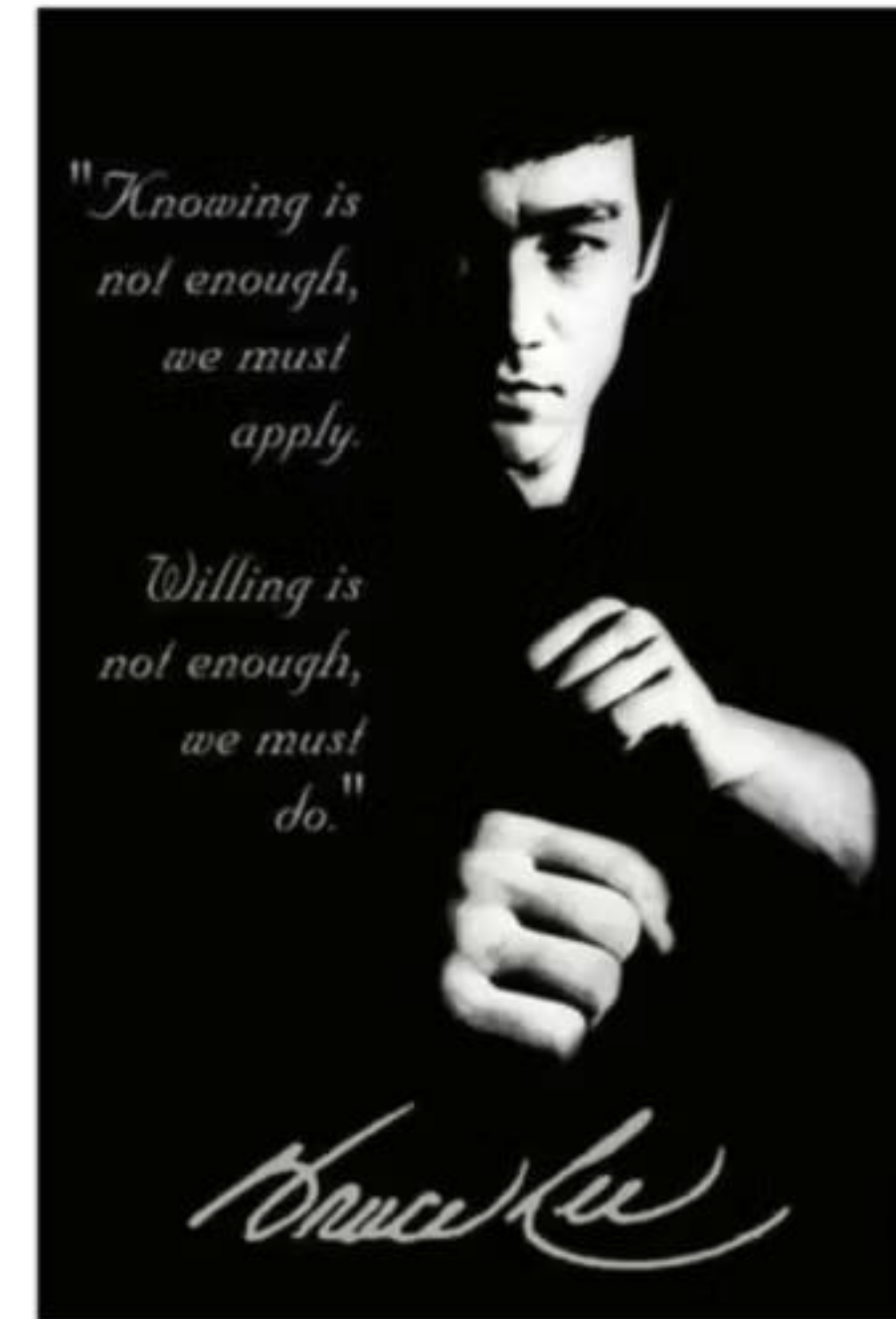
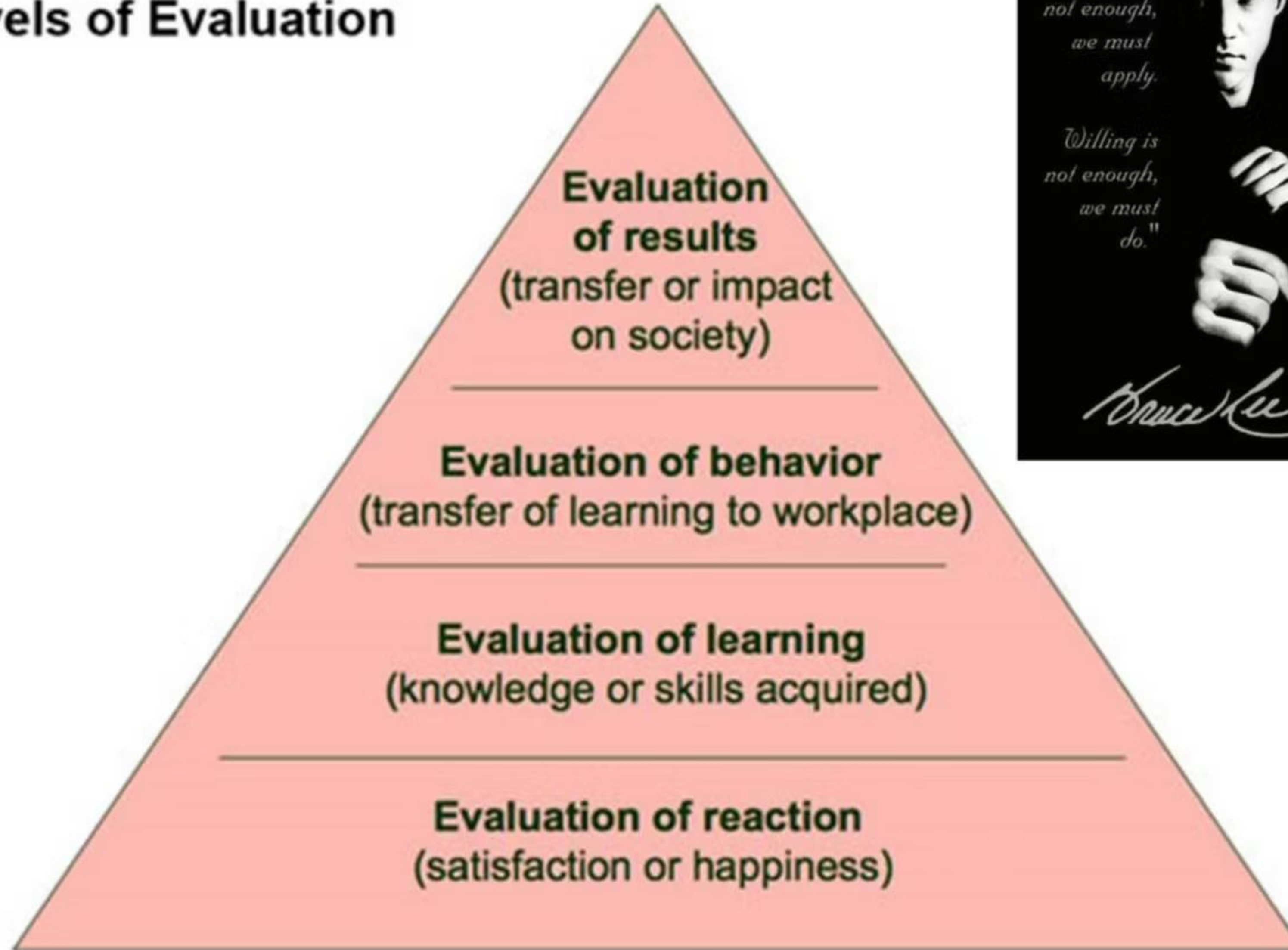


# Kirkpatrick Model of Evaluation



## Levels of Evaluation



# Level 1: Evaluation of Reaction



Did learners like the training? Did they find it relevant?  
Was it engaging and well-presented?



A dissatisfied or disengaged participant is unlikely to learn

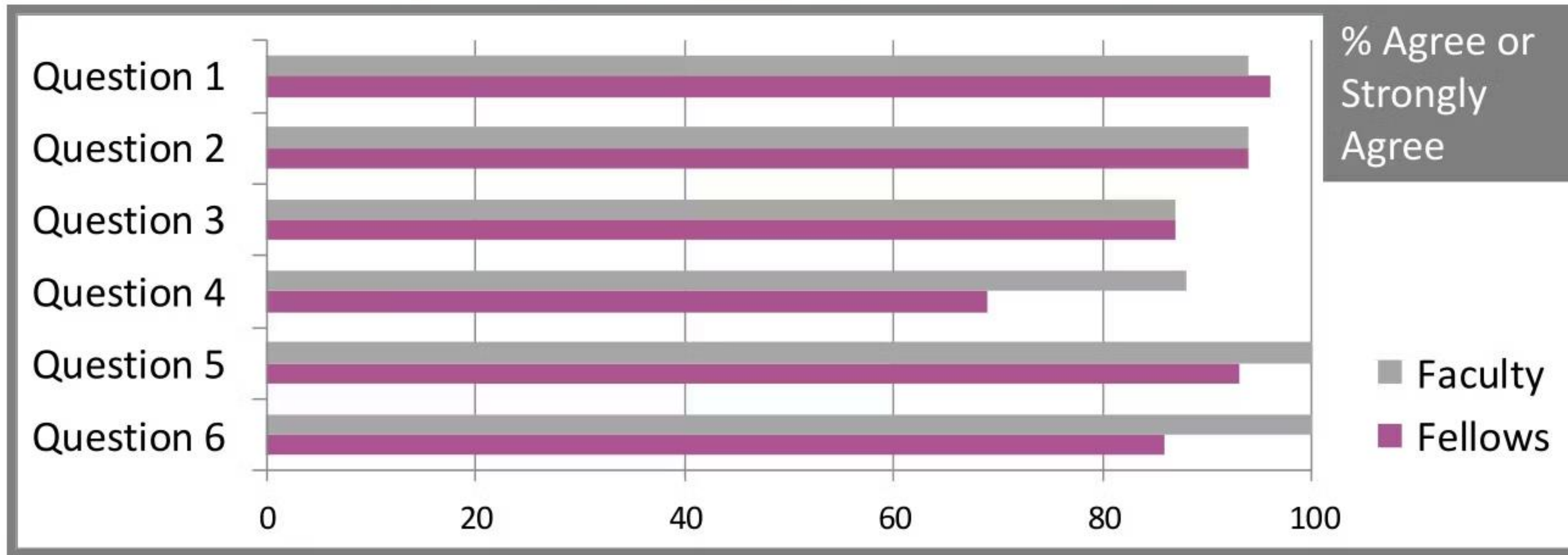


During and/or immediately after education provided



## Humanism and Professionalism Education for Pediatric Hematology-Oncology Fellows: A Model for Pediatric Subspecialty Training

Jennifer C. Kesselheim, MD, MEd,<sup>1\*,a</sup> Mark Atlas, MD,<sup>2,b</sup> Denise Adams, MD,<sup>3,c</sup> Banu Aygun, MD,<sup>2,b</sup>  
 Ray Barfield, MD, PhD,<sup>4,d</sup> Kristen Eisenman, MD,<sup>5,c</sup> Joy Fulbright, MD,<sup>6,c</sup> Katharine Garvey, MD, MPH,<sup>7</sup>  
 Leslie Kersun, MD,<sup>8,e</sup> Amulya Nageswara Rao, MD,<sup>9</sup> Anne Reilly, MD,<sup>10</sup> Mukta Sharma, MD,<sup>11</sup> Evan Shereck, MD,<sup>12</sup>  
 Michael Wang, MD,<sup>5,d</sup> Tanya Watt, MD,<sup>13,f</sup> and Patrick Leavey, MD<sup>14,f</sup>



Question 1: This session touched on issues important in fellowship training

Question 2: This session stimulated reflective communication on this topic

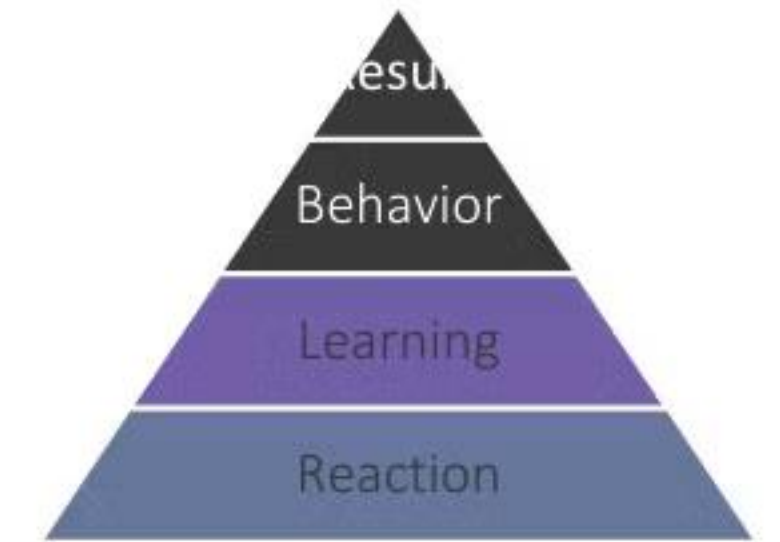
Question 3: This case vignette was useful to the group discussion

Question 4: This session helped us identify useful coping skills for the future

Question 5: Sessions of this type are valuable parts of the overall fellowship curriculum

Question 6: I am looking forward to engaging in more sessions of this type

## Level 2: Evaluation of Learning



What knowledge, skills, or attitudes were gained by learners?



Allows us to determine if learning objectives were met



During and/or after education provided



# Impact of Education Program on Hospital-Based Nursing Professional Development (NPD) Practitioner Self-Efficacy

**TABLE 2** Pre- and Post-NGSE Scale Response Frequencies (N = 70)

	Likert Scale Responses				
	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
I will be able to achieve most of the goals I have set for myself					
Pre	19	46	4	0	1
Post	36	33	0	0	1
Change	+17	-13	-4	-	-
When facing difficult tasks, I am certain that I will accomplish them					
Pre	16	51	2	0	1
Post	30	37	2	0	1
Change	+14	-14	-	-	-
In general, I think that I can obtain outcomes that are important to me					
Pre	19	47	3	0	1
Post	35	34	0	0	1
Change	+16	-13	-3	-	-
I believe I can succeed at most any endeavor to which I set my mind					
Pre	28	38	3	0	1
Post	37	31	1	0	1
Change	+9	-7	-2	-	-
I will be able to successfully overcome many challenges					
Pre	15	51	3	0	1
Post	31	38	0	0	1
Change	+16	-13	-3	-	-



## Level 3: Evaluation of Behavior



Did learners apply what they learned once they return to their clinical environment?



If learners do not apply what they learned, then the program is not meeting the need even if knowledge was gained



Varies, often 1-3 months after education provided

# Feedback on Oral Presentations During Pediatric Clerkships: A Randomized Controlled Trial

**TABLE 4** Faculty-Rated Quality of OPs: Effect of Participating in OP Feedback Sessions E

Comparison	Mean Presentation Quality			P
	Randomization Group			
	Control (n = 158)	Simple (n = 160)	Detailed (n = 158)	
Control versus simple	5.96	6.07		.49
Control versus detailed	5.96 <sup>a</sup>		6.32 <sup>a</sup>	.04 <sup>a</sup>
Simple versus detailed		6.07	6.32	.17

\* Statistically significant.

<sup>a</sup> Linear regressions clustered on clerkship block.

<sup>b</sup> Linear regressions clustered on clerkship block and controlling for medical school.



## Level 4: Evaluation of Results



Were their organizational outcomes as a result of the education, such as cost savings or improved patient outcomes



Helpful to make a business case, especially for time intensive or costly programs.



Varies, often 6 months or more after education provided



# Handoff and Medical Error Rates

**Table 2.** Incidence of Medical Errors, Preventable Adverse Events, and Medical-Error Subtypes before and after Implementation of the I-PASS Handoff Bundle.

Variable	Before Implementation (N = 5516)	After Implementation (N = 5224)	P Value
	<i>total no. (no./100 admissions)</i>		
Overall medical errors	1349 (24.5)	981 (18.8)	<0.001
Preventable adverse events	261 (4.7)	173 (3.3)	<0.001
Near misses and nonharmful medical errors	1088 (19.7)	808 (15.5)	<0.001
Medical-error subtype			
Errors related to diagnosis (incorrect, delayed, omitted)	184 (3.3)	111 (2.1)	<0.001
Errors related to therapy other than medication or procedure	112 (2.0)	77 (1.5)	0.04
Errors related to history and physical examination	43 (0.8)	0	< 0.001
Other and multifactorial errors	239 (4.3)	106 (2.0)	<0.001
Medication-related errors	660 (12.0)	580 (11.1)	0.28
Procedure-related errors	83 (1.5)	85 (1.6)	0.49
Falls	13 (0.2)	8 (0.2)	0.37
Nosocomial infections	15 (0.3)	14 (0.3)	0.79

**N Engl J Med 2014;371:1803-12.**

# Strengths

Relevance

Connects education to clinical practice and patient care

Versatility

Applies across diverse educational methods and settings

Flexibility

Supports evaluation approaches tailored to program goals

Outcomes-focused

Prioritizes measurable results and behavior changes



# Limitations



Over-reliance on  
level 1



Level 3 and 4 are  
resource-intensive



Does not account for  
contextual factors

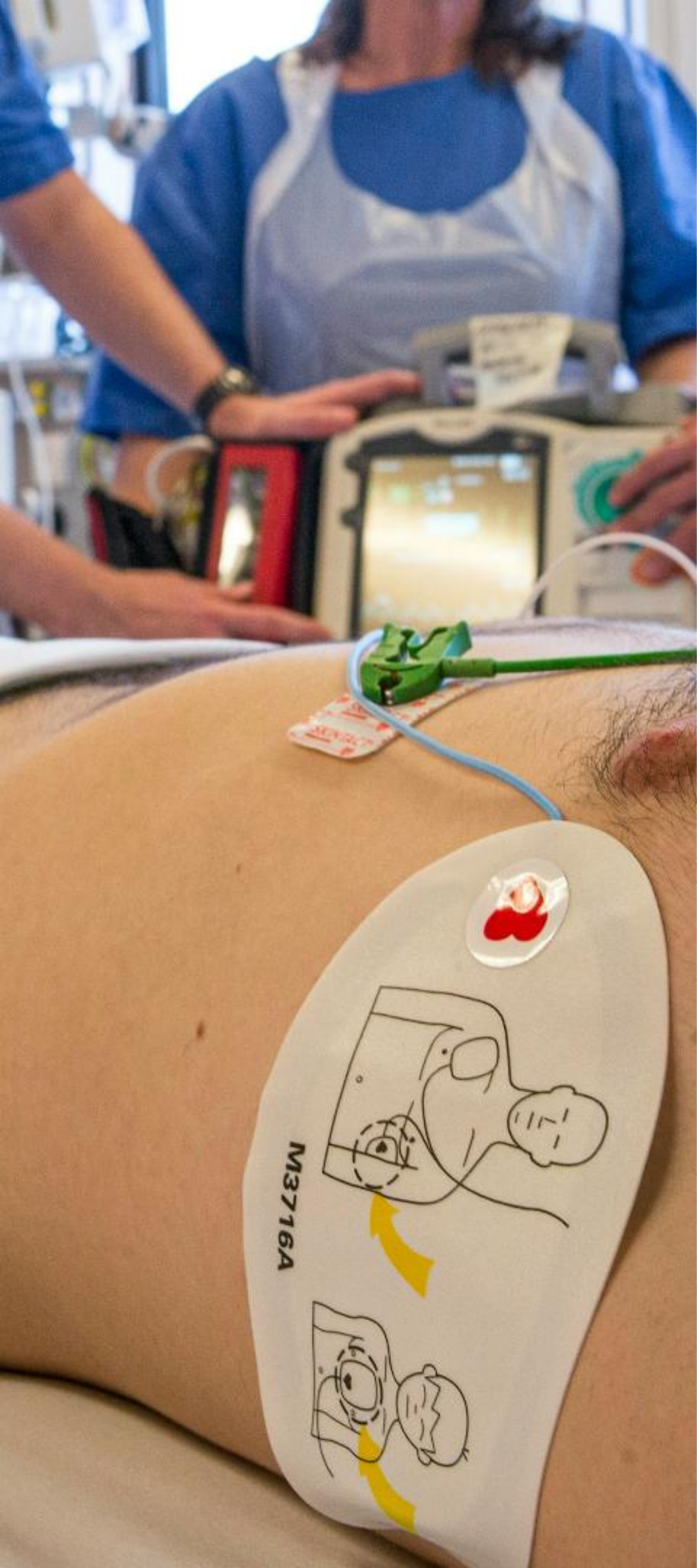
# De-escalation in the Hospital Setting

This computer-based learning module reviews early signs of escalating behavior in patients and family members and verbal and non-verbal de-escalation techniques. The course emphasizes maintaining safety while preserving therapeutic relationships.

How would you evaluate reaction (level 1)?



How would you evaluate reaction (level 1) for the de-escalation module?



# Effective Communication during Emergencies

This simulation course focuses on the standardized communication tool, SBAR (Situation, Background, Assessment, Recommendation). Participants will practice SBAR communication with the interprofessional team in simulated scenarios, with emphasis on clarity, brevity, and patient safety.

How would you evaluate learning (level 2)?



How would you evaluate learning (level 2) for the communication simulation?

# PPE Review

This class reinforces the importance of appropriate use of personal protective equipment (PPE) for all staff who enter patient rooms under isolation precautions. Through case-based examples and group discussion, participants will clarify misconceptions about PPE requirements, review policies, and practice correct donning and doffing procedures.

How would you evaluate behavior (level 3) and results (level 4)?



# How would you evaluate behavior (level 3) for the PPE review?



# How would you evaluate results (level 4) for the PPE review?

# Measurement Strategies

## Level 1 (Reaction)

- Post-class survey with Likert scale and open-ended questions
- Real time polling during education program
- Focus groups, Interviews

## Level 2 (Learning)

- Pre- and post-test
- Return demonstration
- Case study
- Simulation performance
- Self-assessment of confidence or competence

## Level 3 (Behavior)

- Direct observation in the practice setting
- Chart audits
- Supervisor feedback
- Peer evaluation
- Follow-up survey

## Level 4 (Results)

- Clinical outcome metrics
- Quality indicators
- Patient satisfaction scores
- Cost savings
- Regulatory or accreditation outcomes

# Applying the Kirkpatrick Model to the BCH Academy Teaching Certificate Program



# Any questions?

