

**A Family Focused Experience to Enhance Wellbeing of New Anesthesia Residents:
“CA-1 Wellness Orientation and Family Experience”**

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Background: Recently there have been multiple reports of burnout, substance abuse, and suicide in the anesthesiology resident community^{1,2,3,4} In response to this issue, the Accreditation Council for Graduate Medical Education (ACGME) now requires resident education on well-being. Investigators have found that strong social relatedness is closely linked with residents’ well-being.⁵ However, those not in the medical field may lack knowledge of the demands on anesthesiology residents.⁶ Thus, it may be effective to gear education toward our learners in conjunction with their social support network (i.e. family and close friends.)

Needs Assessment: In Spring,2017, we created a Family Anesthesia Experience for support persons of anesthesia providers (faculty, residents, and CRNAs) at UNC.⁷ This experience was well received by anesthesia providers and their guests. Additionally, the support persons demonstrated an increase in understanding of the demands on anesthesia providers inside (N=26, p=0.0002) and outside (N=26, p=0,0023) the operating room. Most providers whose support person attended the event believed it would be easier to communicate regarding work-related issues (n=12, 85.7%). Based upon the lack of a formalized educational curriculum for CA-1s in this area, we instituted a similar experience specifically to orient new residents and their support persons to anesthesiology residency training.

Curriculum Design: This curriculum, deployed at UNC and UK, was designed to orient new residents and their support persons to threats on resident well-being and the available institutional resources. The experience started with a short introductory video representing “A Day in the Life of an Anesthesia Trainee”. Next, informational lectures were delivered by faculty content experts on wellness, burnout, substance abuse, and available local wellness resources. Last, a 90-minute simulation-based experience allowed participants to rotate through three core anesthesiology stations. At one station, they observed a high-fidelity simulated patient experience utilizing standardized patients and anesthesia clinicians. At the other two stations, faculty members guided participants through the use of partial task trainers to provide hands-on experiences with airway management, epidurals, central lines, and peripheral nerve block placement. (Figure 1).

Curriculum Evaluation: Participants were surveyed before and after the event on their appraisal of the experience along with their perceived knowledge gain of anesthesia residents’ work (Figure 2, Table 1). Additionally, we are currently in the process of following up with trainees 2 months and 8 months after the event on their wellness status using validated scales for stress⁸, burnout^{9,10}, resilience⁸, and personal support¹¹.

Abstract CO-2

Figure 1: CA-1 Wellness Orientation and Family Experience at UNC and UK

Disclaimer: Written permissions for the use of photos were obtained from all participants.

Simulated Perioperative Experience: Airway

- Bag mask ventilation
- Direct laryngoscopy/LMA
- Advanced airway devices






Didactics

- Introduction (5 minutes)
- Day in the life video (10 minutes)
- Burnout (7 minutes)
- Substance Abuse (40 min)
- University and Departmental Wellness Resources (8 minutes)
- Simulation (95 minutes)
- Financial Wellness— (30 minute)
- Panel of residents/family members (45-60 minutes, moderated by faculty member)

Simulated Perioperative Experience: Task Trainers

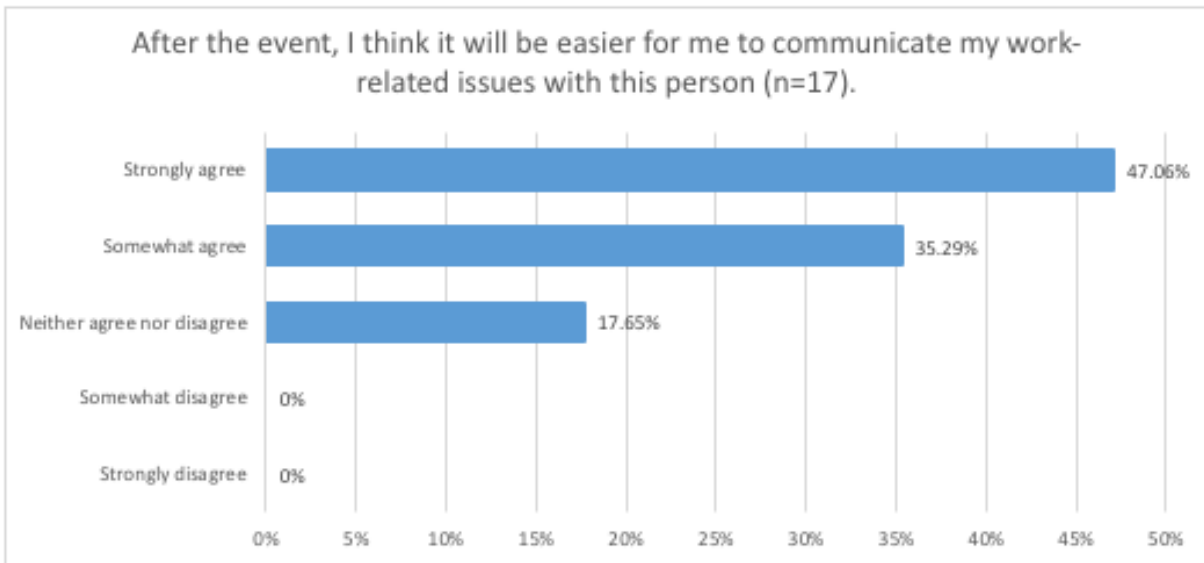
- Central venous lines
- Peripheral nerve blocks
- Neuraxial blocks



Simulated Perioperative Experience: High Fidelity Scenario



Figure 2: Perceived help to communications by residents whose primary work-related emotional support participated in the event (n=17)



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Table 1: Change in family member and friend participants' perceived understanding of anesthesia residents' work (n=33).

Item ^a	S ^b	P value ^c
I understand...		
...what a typical day in the life of an anesthesia resident is like.	138	<.0001
...what anesthesia residents do in the operating room.	126.5	<.0001
...how an intubation is performed.	150	<.0001
...the demands of an anesthesiology resident outside of the operating room.	162.5	<.0001
...that it is common for anesthesia residents to work late.	33	0.0010
...that anesthesia residents have to deal with many unexpected situations on the fly.	45.5	0.0002
I know how to...		
...support my loved one/friend who is an anesthesia resident.	89	0.0002
...reach out to the anesthesiology department for help if needed for my loved one/friend who is an anesthesia resident.	264	<.0001
...access university resources for help if needed for my loved one/friend who is an anesthesia resident.	264	<.0001

^aThe answers were given on an ordinal rating scale (0 = not at all, 1=Somewhat, 2=Moderately, and 3=Mostly).

^bS=Signed Rank: Difference (post-pre)= The difference between self-reported perception of the knowledge after and before attending the event.

^cP value based on Wilcoxon signed-rank test of median difference equal to zero.

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