Virtual Child Neurology Education During COVID-19 and Beyond

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**Background**

- 113 neurology division members are spread across 5 locations, making in-person conferences challenging.
- Pre-COVID-19, most conferences were attended solely by trainees and 3-4 select faculty.
- The COVID-19 pandemic eliminated in-person conferences.

**Objective**

To rapidly develop and implement a comprehensive and inclusive virtual child neurology curriculum.

**Methods**

- We created a neurology education “team” using Microsoft Teams.
- Within 1 week of beginning social distancing, we began offering an average of 4 live virtual lectures per week, increased from 2 weekly lectures prior to COVID-19.
- All lectures were recorded and stored in Microsoft Teams.
- We surveyed learners after weeks 3 and 4 of virtual learning, and again at 3 months.
- Lectures covered diverse topics (empathy, quality improvement, leadership), in addition to clinical neurology.

**Results**

- Survey response rates:
  - Week 3: 92% (104/113)
  - Week 4: 84% (95/113)
  - Month 3: 55% (62/113)
- Percentage of learners attending at least 1 lecture per week increased from 28% to 88% (Figure 1).
- Average of 22 participants per lecture, well-distributed amongst all types of learners (Figure 2).
- Mean learner satisfaction increased from 5.7 (SD 2.3) to 8.5 (SD 1.25) (2-tailed paired t-test p<0.001), as measured on a 10-point Likert scale (Figure 3).
- At 3 months, 88% of learners wished to continue virtual education.
- 60% of clinical staff planned to change their work practice based on information they learned.
- 67% of trainees “agreed” or “strongly agreed” that the curriculum changed how prepared they felt for upcoming exams.
- Neurology residents’ average in-training exam scores increased 10% after 1 year of virtual curriculum.
- Increased rapport: 85% of respondents “agreed” or “strongly agreed” that they felt more connected to colleagues.

**Conclusion**

COVID-19 was a disruptive innovation, catalyzing the rapid formation of a virtual curriculum. Our curriculum increased learner satisfaction, engagement, and rapport. We continue to offer several virtual lectures each week.