The Segway Model: Results of a Qualitative Analysis on the Value and Role of Education in the Academic Learning Health System

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BACKGROUND

- Health education must ensure high-quality, equitable, community engaged, and technologically-supported healthcare from learners and providers.
- Must re-envision the role of learners, structure of training, integration of lifelong learning and education into the academic learning health system (aLHS).
- Few studies have examined how an institution's educational mission may be valuable in guiding the transformation to an aLHS [1,2].
- Qualitative analysis of responses from a Wake Forest University School of Medicine (WFUSM) Academic Forum on the future of medical education.

METHODS

- Four-hour workshop convened; 161 leaders from the across the aLHS attended.
- Attendees participated in small group breakout sessions to answer questions:

1. **What are the unimagined roles we need in our healthcare system?**
2. **How do we drive innovation through and with our learners?**
3. **How do we leverage our learners as active citizens in the communities in which they live?**
4. **What new models should we consider to retain talent, enhance diversity and accelerate knowledge transformation?**
5. **What educational experiences might we create to achieve our goals as an aLHS?**
6. **What roles are needed to ensure a consistent patient and family technology interface?**
7. **Where should we focus our energy and resources to impact diversity?**

- Responses were collected using an electronic whiteboard platform, *Padlet*.
- Responses were coded individually for content via thematic analysis, then organized into question-specific and overarching themes.

OVERARCHING THEMES

We must create and sustain community pipelines to our programs.

We must create cross-program learning for students.

We require improvements in- and expansion of- technology.

Our future will require adaptive expertise and a growth mindset.

We must gather big data and make better use of feedback in real time.
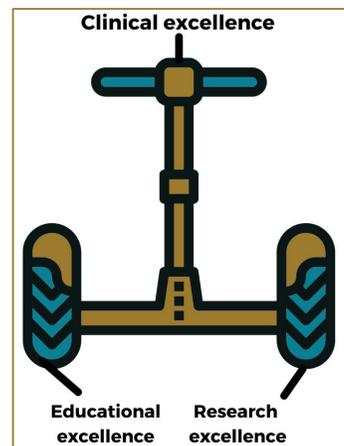
RESPONDENT PERSPECTIVES

- Community pipelines and partnerships build institutional trust.
- Effective at retaining local talent, improving diversity, and reflecting the communities we serve.
- First step: invest in existing programs.

- Benefits to diverse learners co-learning together
- Facilitates team collaboration, sparks innovation, promotes team-based care and encourages students to think outside the constraints of their program.
- May improve patient care.

- Expand technological access to patients.
- Facilitator of learning in active and applied ways.
- Technology access is growing faster than training and mastery of existing technology; necessary to bridge the training gap for all.

- Need roles in health policy, health system science, community health.
- Foster a system with lifelong learning and innovation.
- Employ feedback and use appreciative inquiry to understand anticipated challenges.

- Data facilitate health system adaptation.
- Collect data on our learners, patients, teammates and community to gauge areas of improvement.
- Open lines of communication to all for feedback.
- Learners should be included in decision-making.

DISCUSSION

- Full thematic analysis is available using the QR code (**Figure 2**).
- Some perceive the academic mission to be a drain on the financial center of the health system.
- Educational practices, skill development and student involvement can add value to the health system as they advance enterprise-wide strategic initiatives.
- Responses support a Segway model of the aLHS (**Figure 1**) where the wheels reflect the research and educational missions while the driver and handles reflect the clinical mission.
- Closely aligned research and educational missions will propel clinical practice forward in innovative ways.
- Respondents showed novel ways in which learners may actively experience the health system and engage in patient care, in and out of the hospital, revitalizing the experiential learning model.

"[We] need individuals who can speak the language of clinical and research methods…[and] integration of the best evidence into the clinical practice with adoption of innovation."

Quote 1. Sample respondent quote on the need for health system science integration in student learning.

Figure 1. The Segway model of the aLHS.

Figure 2. QR code with access to full thematic analysis.

Of the 344 Padlet responses, respondents highlighted employing the WFUSM educational mission to overcome challenges in…

- Patient safety and quality of care
- Community impact and social engagement
- Research, innovation and implementation
- Student learning and training
- Teammate retention and development
- Navigation of the health system

NEXT STEPS

Conducting focus groups with students, trainees, faculty and academic leadership to gauge stakeholder perception of academic forum responses.

REFERENCES

[1] Gonzalo, J. D., Wolpaw, D., Graaf, D., & Thompson, B. M. (2018). Educating patient-centered, systems-aware physicians: a qualitative analysis of medical student perceptions of value-added clinical systems learning roles. *BMC medical education*, 18(1), 248. https://doi.org/10.1186/s12909-018-1345-5
[2] Gonzalo, J. D., Lucey, C., Wolpaw, T., & Chang, A. (2017). Value-Added Clinical Systems Learning Roles for Medical Students That Transform Education and Health: A Guide for Building Partnerships Between Medical Schools and Health Systems. *Academic medicine : journal of the Association of American Medical Colleges*, 92(5), 602–607. https://doi.org/10.1097/ACM.0000000000001346