Workplace Learning and the Clinical Learning Environment: From Theory to Innovative Practice

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No Disclosures
Agenda & Format

- Describe some key concepts from theories about workplace learning
- Discuss applications to clinical learning environments
- Consider how workplaces function as “curricula”
- Share your questions and comments
“There is nothing so practical as a good theory”
-1951, p169
Definition of theory

Theories are nets cast to catch what we call ‘the world’: to rationalize, to explain, and to master it. We endeavour to make the mesh ever finer and finer.

(Popper, *The Logic of Scientific Discovery*, 1959)
A few clarifications about theory…

- A theory is one type of conceptual framework that guides:
  - thinking about a problem or question
  - representation of complex processes
  - methodology and interpretation

- A theory differs from models, principles, best practices

- A theory can be used to:
  - describe, explain, predict, analyze

Bordage G 2009; Rees & Monrouxe 2010
A Theory of Workplace Learning...

Key Principles

Workplace Affordances

- Work Practices
  - Activities, language, tools, resources, culture, interactions

Personal Engagement

- Individual & Group Qualities
  - Values, knowledge, experience, agency, interests, motivation

Participation

Participation

Active Mind or Body
Interaction with Social, Physical, Cultural, Historical Context
Dynamic, Fluid

Participation among today’s learners

Life of an Intern

- Computer time: 292 minutes
- Indirect patient care: 159 minutes
- Direct patient care: 135 minutes
- Personal time: 72 minutes
- Travel: 54 minutes
- Education: 22 minutes
- Nurse Contact: 19 minutes

12.7 hour day • Internal Medicine Intern • Penn State Hershey Medical Center

Life of a Resident

- Computer time: 203 minutes
- Indirect patient care: 180 minutes
- Direct patient care: 106 minutes
- Personal time: 54 minutes
- Education: 49 minutes
- Travel: 45 minutes
- Nurse Contact: 23 minutes

11.3 hour day • Internal Medicine Resident • Penn State Hershey Medical Center

http://blog.sermo.com/2014/06/24/the-life-of-a-resident-little-time-with-patients/
While most residents and fellows indicated they participate in QI projects, many of those interviewed appeared to have a limited knowledge of QI concepts and the specific methods and approaches to QI employed by the CLE (e.g., PDSA cycles).

In most CLEs, residents and fellows appeared to have limited participation in interprofessional QI teams.
Question:
What types of participation are most important / valuable for learners?
Affordances

Factors that shape how learning proceeds in workplaces

Learning opportunities that are:
- readily available
- created by learners
- created by educators (e.g., teaching)

Affordances?

Physical Space

Social / Relational

Technological

Cultural / Historical
Question:
What affordances have you created to support learners’ participation?
Engagement

Who a person is and what they bring to a given situation
- motivation, emotions, well-being
- prior knowledge & experience
- values, beliefs, assumptions, conceptions/misconceptions
**Today’s Learners**

**A narrative review on burnout experienced by medical students and residents**
Liselotte Dyrybe & Tait Shanafelt

Factors within the learning and work environment, rather than individual attributes, are the major drivers of burnout. Limited data are available regarding how to best address trainee burnout, but multi-pronged efforts, with attention to culture, the learning and work environment and individual behaviours, are needed to promote trainees' wellness and to help those in distress.

**Burnout Among U.S. Medical Students, Residents, and Early Career Physicians Relative to the General U.S. Population**
Liselotte N. Dyrybe, MD, MHPE, Colin P. West, MD, PhD, Daniel Satele, Sonja Boone, MD, Litjen Tan, MS, PhD, Jeff Sloan, PhD, and Tait D. Shanafelt, MD

**Professionalism in the Era of Duty Hours**
Time for a Shift Change?
Vineet M. Arora, MD, MAPP
Jeanne M. Farnan, MD, MHPE
Holly J. Humphrey, MD

**Professionalism in the Twilight Zone: A Multicenter, Mixed-Methods Study of Shift Transition Dynamics in Surgical Residencies**
James E. Coverdill, PhD, Adnan Alseidi, EdM, MD, David C. Borgstrom, MD, Davide de la Torre

**Generational changes and their impact in the classroom: teaching Generation Me**
Jean M Twenge

**RESULTS** Today's students (Generation Me) score higher on assertiveness, self-liking, narcissistic traits, high expectations, and some measures of stress, anxiety and poor mental health, and lower on self-reliance. Most of these differences were significant.

**REVIEW**
Open Access
Well-being

The delivery of safe and high quality patient care on a consistent and sustainable basis can only be rendered when the well-being of clinical care providers is assured. The optimal clinical learning environment is engaged in systematic and institutional strategies and processes to cultivate and sustain the well-being of both its patients and clinical care team.

- Empowerment, Resilience, Professional identity formation

**Graduate Medical Education’s New Focus on Resident Engagement in Quality and Safety: Will It Transform the Culture of Teaching Hospitals?**

Jennifer S. Myers, MD, and David B. Nash, MD, MBA

**Reframing Medical Education to Support Professional Identity Formation**

Richard L. Cruess, MD, Sylvia R. Cruess, MD, J. Donald Boudreau, MD, Linda Snell, MD, MHPE, and Yvonne Steinert, PhD

**Healthy Exercise Habits Are Associated With Lower Risk of Burnout and Higher Quality of Life Among U.S. Medical Students**

Liselotte N. Dyrbye, MD, MHPE, Daniel Satele, and Tait D. Shanafelt, MD

**Stress and burnout in residents: impact of mindfulness-based resilience training**
Many residents and fellows seemed to view QI engagement as implementing solutions prescribed by the CLE or their department.
Question:
What do you find works best to spark learners’ engagement in diverse clinical environments?
Moving from theory to practice

The workplace ‘curriculum’
Curriculum

- A planned educational experience (Kern)
- All the experiences that enable learners to reach intended outcomes (Grant)
A Workplace Curriculum is …

“An organized set of experiences in a real-world setting that fosters the acquisition of competencies that are necessary to act as a professional.” (p984)
Standard 3: Academic and Learning Environments

A medical school ensures that its medical education program occurs in professional, respectful, and intellectually stimulating academic and clinical environments, recognizes the benefits of diversity, and promotes students’ attainment of competencies required of future physicians.

3.1 Resident Participation in Medical Student Education

Each medical student in a medical education program participates in one or more required clinical experiences conducted in a health care setting in which he or she works with resident physicians currently enrolled in an accredited program of graduate medical education.

3.2 Community of Scholars/Research Opportunities

A medical education program is conducted in an environment that fosters the intellectual challenge and spirit of inquiry appropriate to a community of scholars and provides sufficient opportunities, encouragement, and support for medical student participation in the research and other scholarly activities of its faculty.

3.3 Diversity/Pipeline Programs and Partnerships

A medical school has effective policies and practices in place, and engages in ongoing, systematic, and focused recruitment and retention activities, to achieve mission-appropriate diversity outcomes among its students, faculty, senior administrative staff, and other relevant members of its academic community. These activities include the use of programs and/or partnerships aimed at achieving diversity among qualified applicants for medical school admission and the evaluation of program and partnership outcomes.

3.4 Anti-Discrimination Policy

A medical school does not discriminate on the basis of age, creed, gender identity, national origin, race, sex, or sexual orientation.

3.5 Learning Environment/Professionalism

A medical school ensures that the learning environment of its medical education program is conducive to the ongoing development of explicit and appropriate professional behaviors in its medical students, faculty, and staff at all locations and is one in which all individuals are treated with respect. The medical school and its clinical affiliates share the responsibility for periodic evaluation of the learning environment in order to identify positive and negative influences on the maintenance of professional standards, develop and conduct appropriate strategies to enhance positive and mitigate negative influences, and identify and promptly correct violations of professional standards.

3.6 Student Mistreatment

A medical education program defines and publicizes its code of professional conduct for the relationships between medical students, including visiting medical students, and those individuals with whom students interact during the medical education process. A medical school institutes effective measures that
The ACGME Common Program Requirements are a basic set of standards (requirements) in training and preparing resident and fellow physicians. These requirements set the context within clinical learning environments for development of the skills, knowledge, and attitudes necessary to take personal responsibility for the individual care of patients. In addition, they facilitate an environment where residents and fellows can interact with patients under the guidance and supervision of qualified faculty members who give value, context, and meaning to those interactions.

“The ongoing research into the development of the competent, independent, practicing physician continues to shape the determinations of optimal resident education from a curricular assessment and learning environment perspective.”
— Jeffrey P. Gold, MD
ACGME Board of Directors

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6 Focus Areas with Pathways to Excellence

CLER PATHWAYS TO EXCELLENCE
Expectations for an optimal clinical learning environment to achieve safe and high quality patient care
Version 1.1

PS Patient Safety
HQ Health Care Quality
CT Care Transitions
S Supervision
WB Well-Being
PR Professionalism
Question:

How do you think about a workplace curriculum given these frameworks and requirements from LCME and ACGME?
To Recap

Local and national groups provide frameworks that shape our thinking about what must be learned.

Theories about workplace learning direct our attention toward:

- Affordances
- Participation
- Engagement

These theoretical lenses help us see opportunities for innovative educational practices.

He who loves practice without theory is like the sailor who boards ship without a rudder and compass and never knows where he may cast.

- Leonardo da Vinci

Experience without theory is blind, but theory without experience is mere intellectual play.

- Immanuel Kant
Our Question To You:
What affordances and sources of learner engagement could you cultivate in your learning environments?
Thank you!
Questions & Discussion
References


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