Clinical Practice in the Early Years of Medical School

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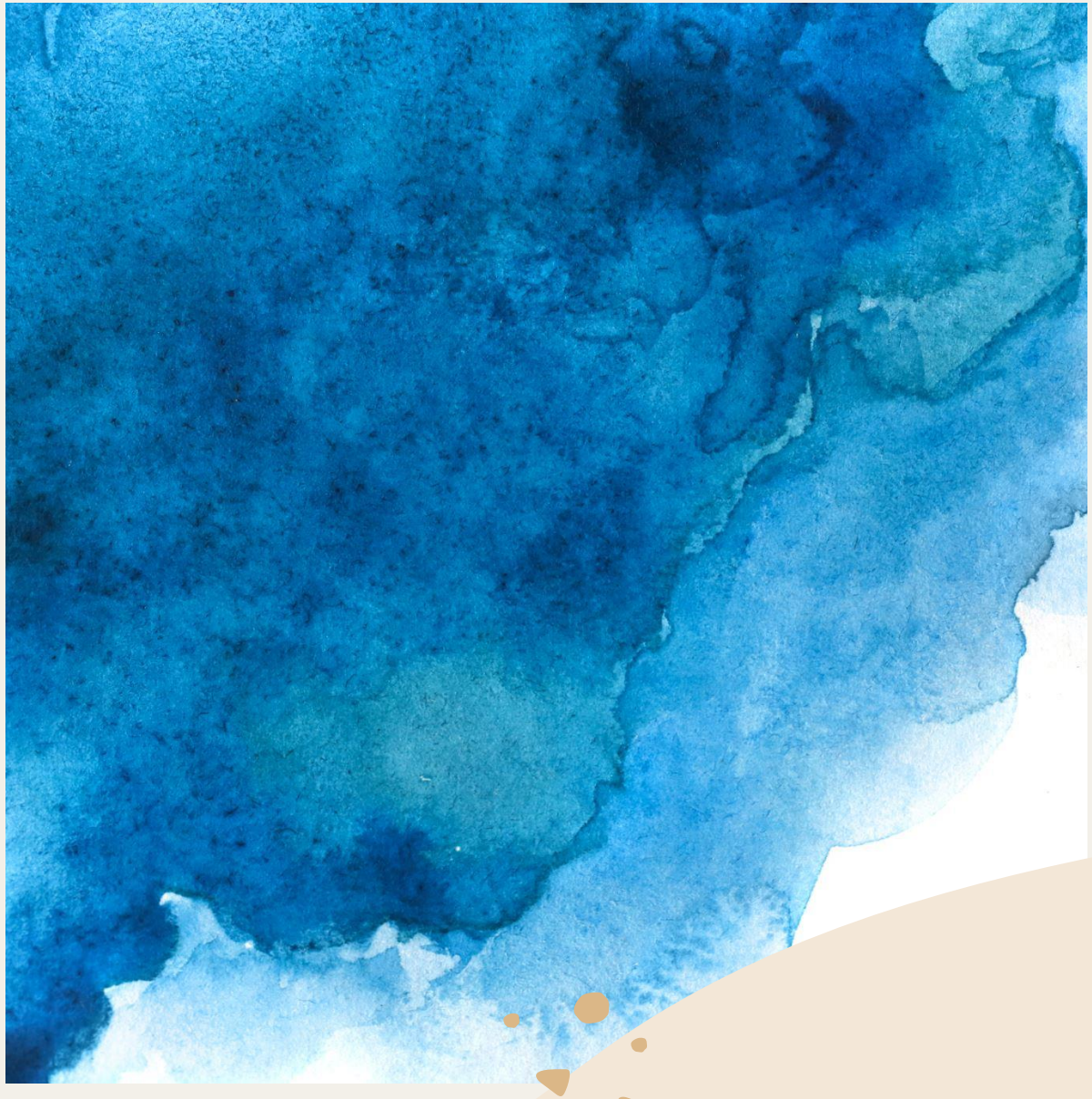


Your Question for this Forum

What is the ideal clinical practice training for participation in medical treatment after the revision of the Japanese Medical Practitioners Act?

My Objectives in This Presentation

1. Articulate a rationale for clinical practice in the early years of medical school
2. List facilitators for early clinical practice training
3. Describe one model at the University of California San Francisco (UCSF) School of Medicine

Take Home Points

1. Clinical practice training is possible in the early years.
2. Learning outcomes from early clinical practice can be measured
3. Benefits include knowledge, skills, and professional identity formation

Section 1:
Why - Early Clinical Practice?

Early clinical practice is informed by these 3 learning theories:

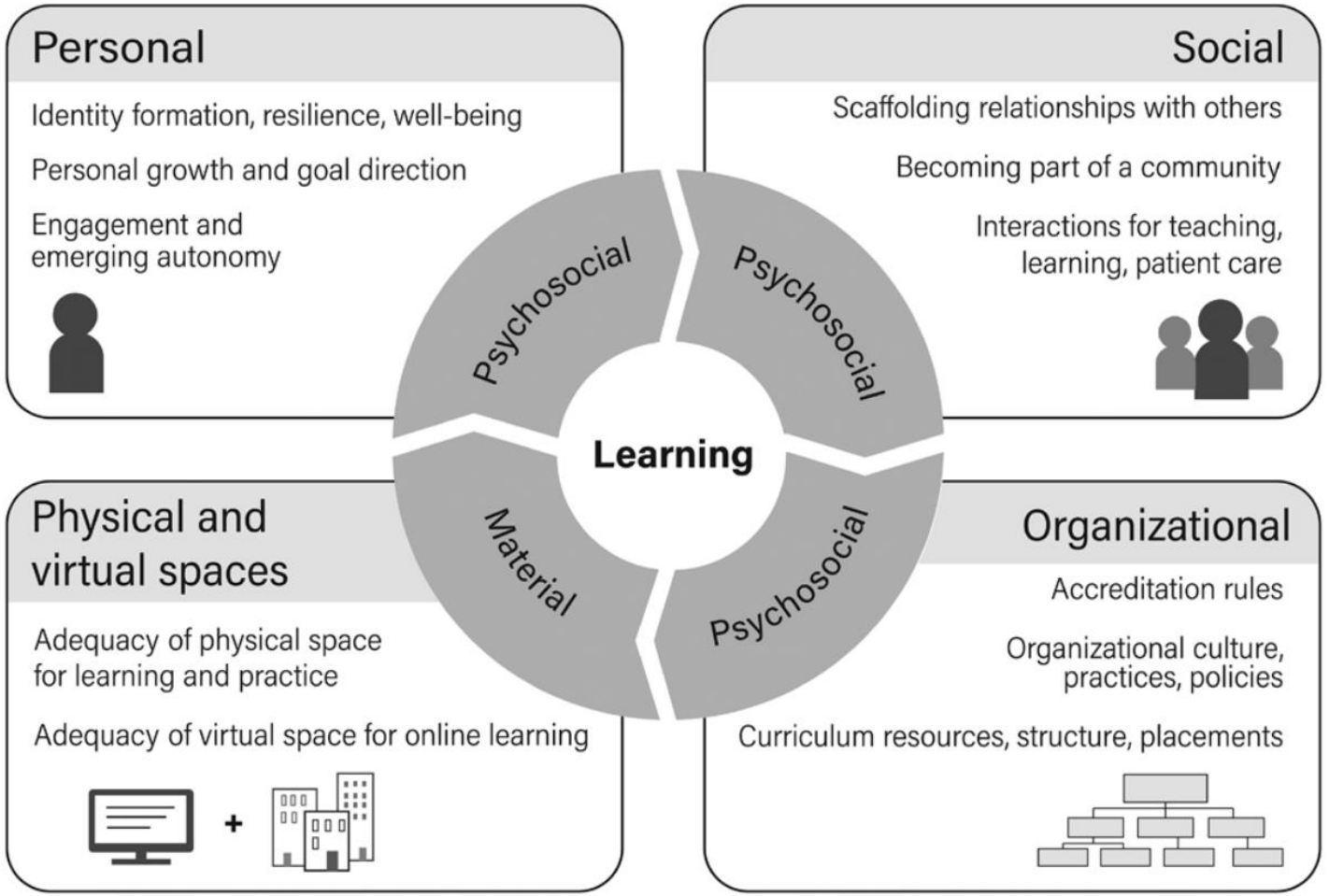
1. The learning environment
2. Communities of practice
3. Professional identity formation

At UCSF, the purpose of medical education is to educate learners who will improve the health of our communities and alleviate suffering due to illness and disease in our patients.

Day 1: White Coat Ceremony

Current Concept #1

The Learning Environment Facilitates Transformative Learning



Transformative learning is best facilitated through **immersion in the workplace** and influences professional identity

2019 Gruppen Acad Med
2019 Van Schalkwyk Medical Education

Years 1&2: Small Groups

Current Concept #2

Communities of Practice Influence the Development of Expertise

Definition: a social network that shares knowledge, beliefs, values, history, and experiences

Expertise is not simply a property that passes from teacher to learner, but a dynamic commodity that resides within communities of practice…learning is a process of absorbing and being absorbed into the culture of such a community

Communities Increase:

- Sense of collective identity and purpose
- Knowledge and skills
- Satisfaction

1991 Lave, Wenger Situated Learning
2013 Wenger, McDermott, Snyder
2018 Cruess, Cruess, Steinert Acad Med
2007 Dornan Med Ed

Years 3&4: Clinical Teams

Current Concept #3

Professional Identity Formation Requires Experiential Learning

Definition: The process through which learners are transformed from members of the lay public into skilled professionals.

Important factors:

- Role models and mentors
- Workplace learning

The process:

- Progression from peripheral to full participation in the community of practice of medicine

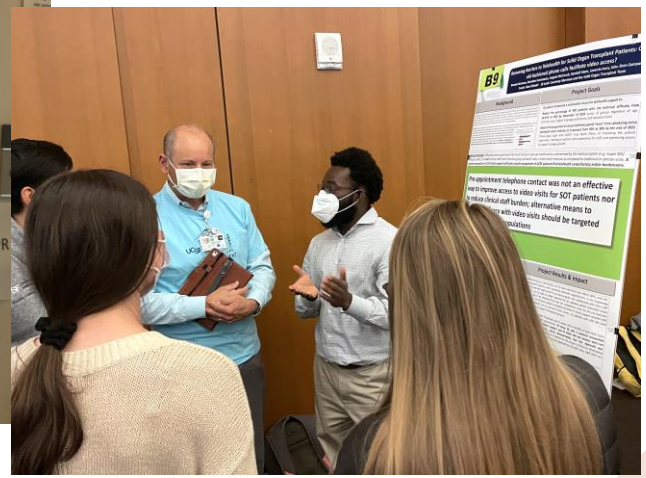
2019 Cruess, Cruess, Steinert Medical Teacher

Summary (Section 1)
Our Approach to Training Physicians

Design the **learning environment**

that allows **communities of practice**

to shape learners' **professional identities**.



Question:

Why do you have early students in the clinical setting?

Answer:

A. Learning is more effective with hands-on practice
B. Retention is more natural with workplace learning
C. Well-being is enhanced with learning communities
D. Professional identity as a physician begins at the start
E. All of the above

Last Day: Graduation = MD

Section 2:
How - Early Clinical Practice?

A. Steps to prepare students
B. Steps to prepare faculty
C. Steps to prepare the health care system

A. Steps to Prepare Students:

1. Fundamental principles and knowledge
2. Application of skills in simulation
3. Immersion in clinical practice

Step 1: Learn Steps (Classroom)

Step 2: Try Skills (Simulation)

Step 3: See Patient (Clinical)

B. Steps to Prepare Faculty:

1. Teaching skills development
2. Practice and feedback

Step 1: Teach the Teachers

Step 2: Practice and Feedback

B. Steps to Prepare the System:

1. Assign near-peer teachers for students
2. Engage the interprofessional team

Step 1: Assign Teachers

Step 2: Engage the Team

Question:

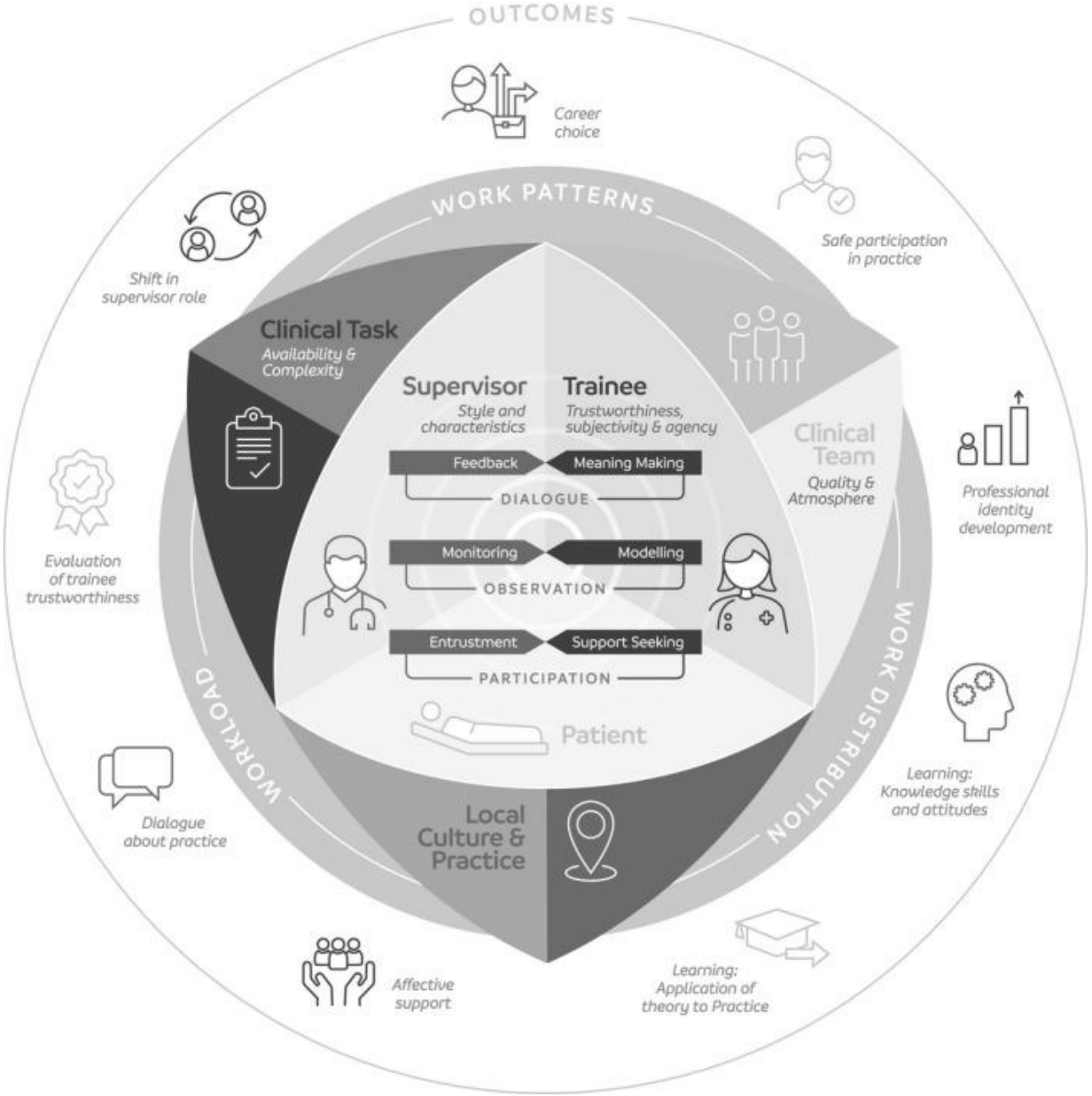
How do you make sure students do not hurt patients?

Answer:

A. Teach them basic techniques followed by practice in simulation
B. Help students (and patients) recognize their role and limits
C. Have regular assessments of students' abilities
D. Supervise student practice by a licensed physician
E. All of the above

Supervised Learning

2018 Wiese
Medical Education



Section 3:
One Example – UCSF School of Medicine

A. Curricular components:
   1. A day in the UCSF Clinical Microsystems Clerkship
   2. Earlier Sessions: Simulation session
   3. Later Sessions: Clinical setting
   4. From the Beginning: Immersion into a health system
   5. Assessment, evaluation, outcomes

B. Lessons learned:
   1. Student and faculty preparation and perceptions vary
   2. Experience depends on the context of the clinical workplace
   3. Some standardization in objectives, some variation in learning

A Day: UCSF Clinical Microsystems Clerkship

Chang et al. Acad Med 2022

Goals: UCSF Clinical Microsystems Clerkship

The UCSF School of Medicine Clinical Microsystems Clerkship (CMC) is a required longitudinal clinical skills and health systems improvement curriculum for first– and second–year medical students. It integrates **direct patient care**, **health systems improvement**, and **interprofessional collaboration**.

Earlier Sessions: Simulation Lab

Later Sessions: Clinical Setting

Lessons Learned: Curriculum

1. Professional identity formation from the start with immersion in health system
2. Students progressively do more – from history, to physical, to notes/presentations
3. Learning occurs with repeated regular practice and feedback

Question:

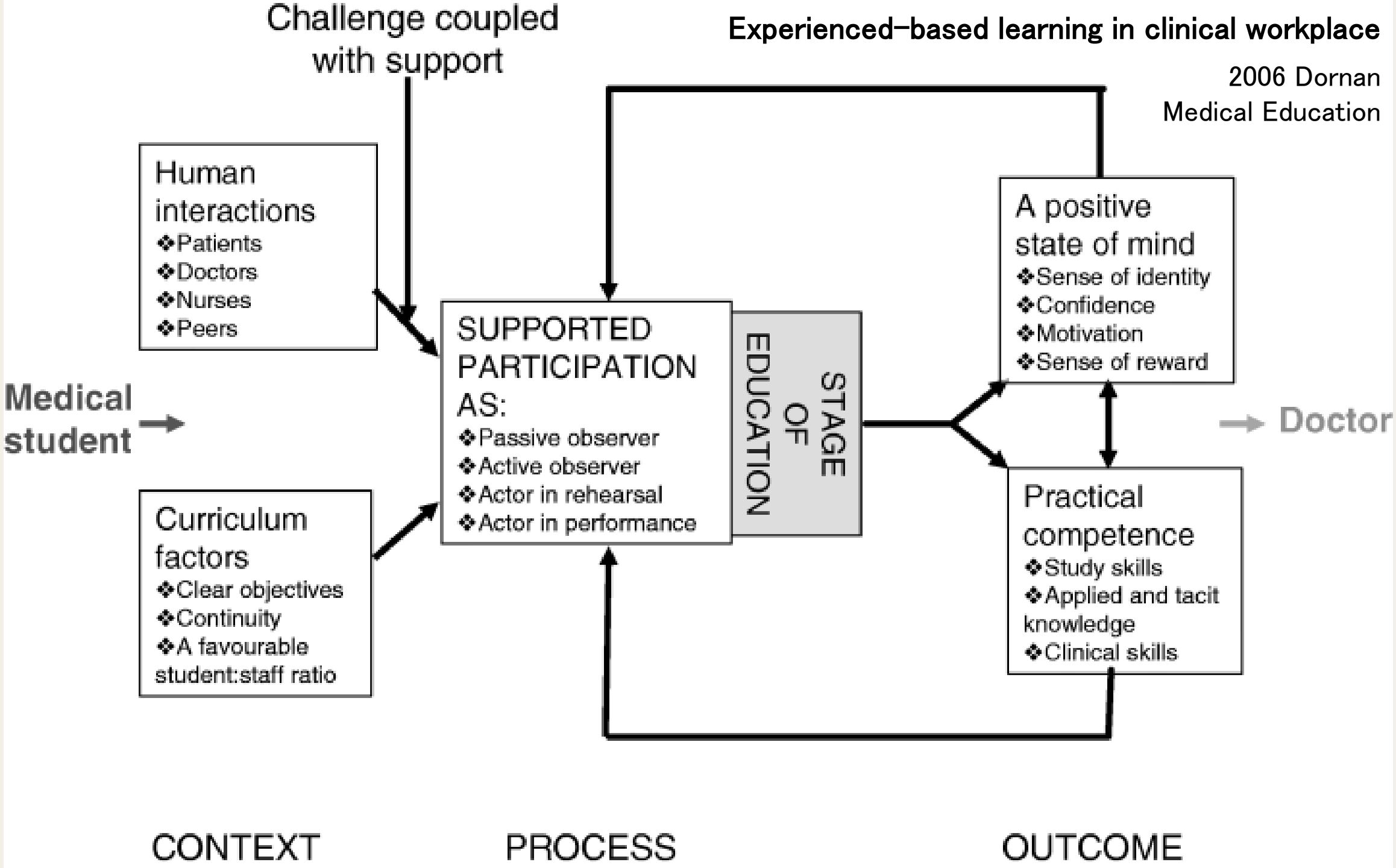
How do you immerse students in the health care system?

Answer:

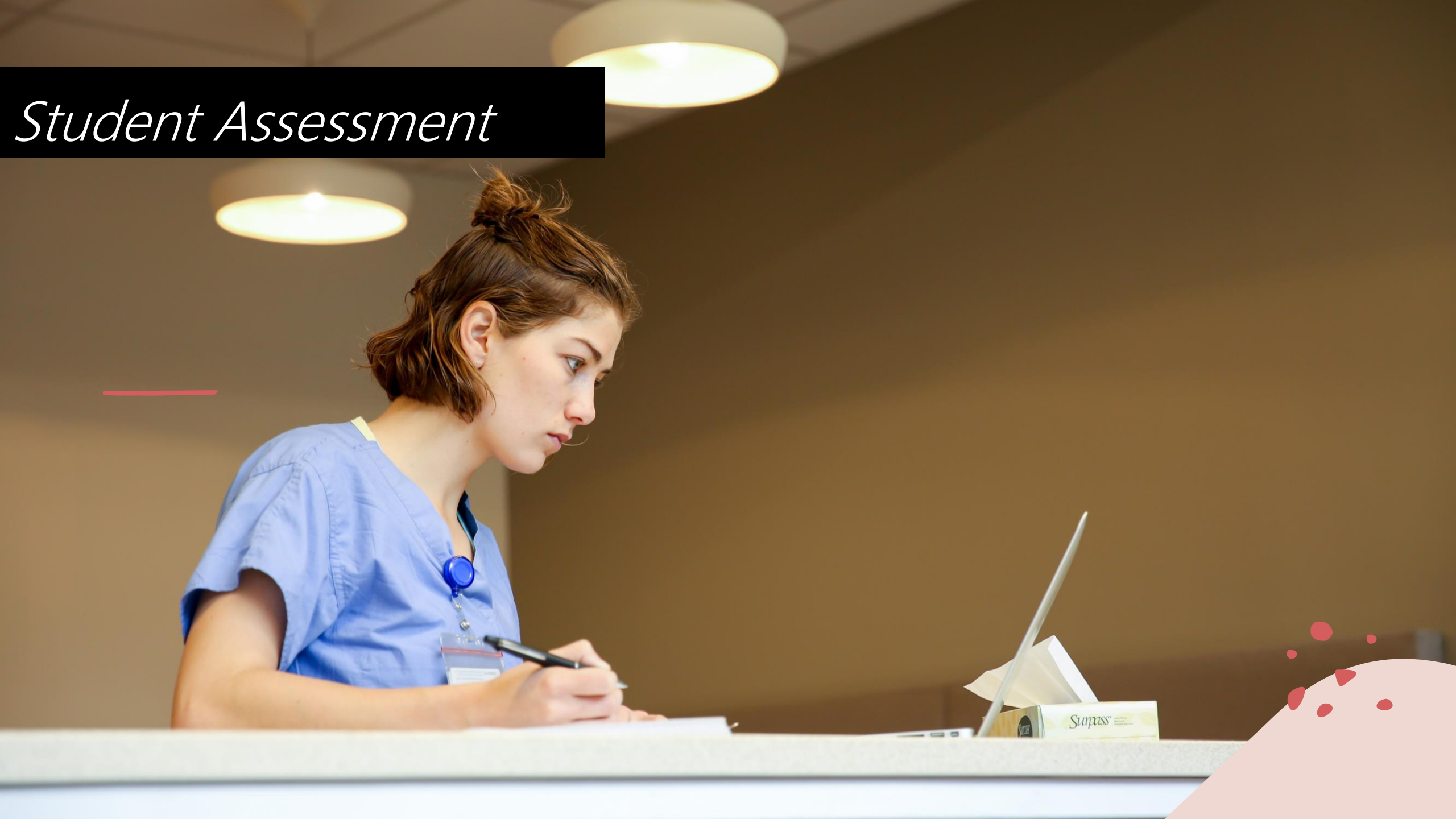
A. Set the expectation in the system that students belong there
B. Describe the students' role to patients, families, physicians, staff, trainees
C. Help the student be of help to the clinical team
D. Allow the students to be present in a longitudinal manner
E. All of the above

Experienced-based learning in clinical workplace

2006 Dornan
Medical Education



Student Assessment



3 Milestones/Competencies for Years 1&2

1. **Communicate** with patients, families, peers, and other team members of diverse backgrounds, languages, cultures, and communities using strategies that build rapport and promote inclusion and equity
2. Gather basic **histories** from patients, families, and electronic health records relevant to clinical presentation, patient concerns, and structural factors that impact health
3. Perform basic elements of a **physical exam** relevant to clinical presentation and patient concerns and identify common abnormalities, with attention to patient comfort

Student Assessment Outcomes:

	MS1 Assessments (N=152)	MS2 Assessments (N=152)
Direct Patient Care	**Clinical Skills Examinations Mean Percentage (SD)[a]**	
Patient Communication	90% (SD 5.3)	86% (SD 5.7)
Medical History	85% (SD 5.9)	96% (SD 4.6)
Physical Examination	78% (SD 6.2)	70% (SD 7.4)

2 More Milestones/Competencies

1. Present patient information with an assessment and differential diagnosis in an organized and logical manner for common patient complaints
2. Document patient encounters with an organized and reasoned report of information that supports a preliminary assessment and plan

Sample Clinical Skills Test: Patient Note

1. Document the patient's medical history
2. Document your physical examination for this patient
3. Write a one-sentence summary of this patient
4. List your top three differential diagnoses for this patient
5. For your most likely diagnosis, list next steps

Student Satisfaction Outcomes:

Student Satisfaction:	**Mean Rating (SD; N=50)**
Overall quality of the CMC	4.10 (SD 0.92)
Value to development as a physician	4.14 (SD 0.86)

Scale of 1 (poor) to 5 (excellent)

2022 Chang et al. Acad Med

Professional Identity (as Year 4 students)

Question	Mean (SD)
The CMC helped me understand my role as a physician member of the interprofessional team	4.26 (0.95)
The CMC was an effective way for me to learn clinical skills and health systems improvement	4.14 (0.94)


Addressing Patient Flow at an Outpatient Primary Care Clinic
Raagini Suresh & Cody Mowery
Dr. Michelle Guy
Dr. Brent Kobushi
Mount Zion Dept. of General Internal Medicine
Background
Project Goals
Advance Care Planning at an Academic Primary Care Clinic

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Summary: Take Home Points

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thank you!