

Challenges of Effective Clinical Teaching

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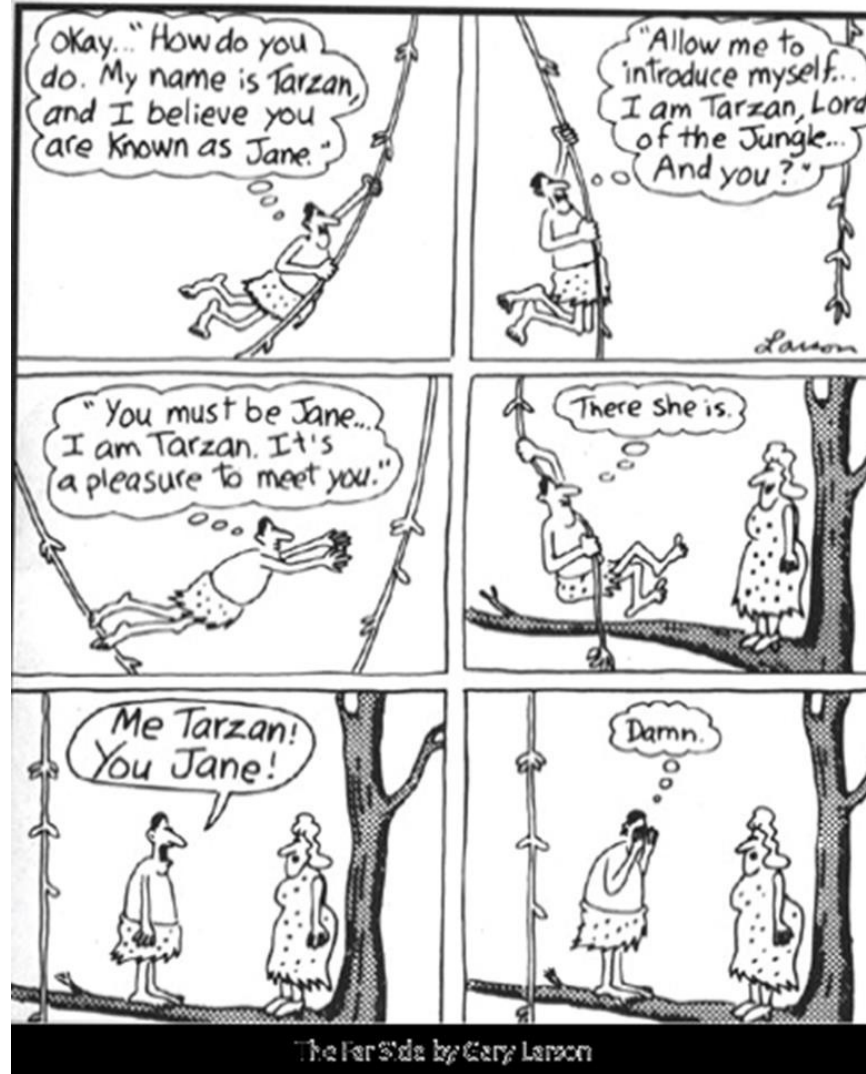
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Objectives

- Review the basic principles of clinical teaching.
- Understand the six essential clinical teaching skills.
- Discuss methods of getting students engaged in clinical thinking.
- Utilize the One-Minute Preceptor in a practice setting.
- Discuss methods of feedback to millennials.
- Discuss the importance of written comments on medical students.
- Describe structure and content of written comments which make them useful in an evaluation



Reflections

As a student, my worst experience with a preceptor was when...

The best preceptor I ever had...

Many preceptors need training on/about...

If a colleague asked how to get ready for his/her first student, I would tell them...

To make the most of my teaching time, I hope students will...

To get the most out of my rotation, students should...



Reflections

The staff in my office think students should...

The worst student I ever had...

The most difficult thing about being a preceptor is...

To help me as a preceptor, the medical school should...

To enhance my office as a training site, the medical school could provide...

The most rewarding things about being a preceptor are...



Teaching Medical Students in Community-Based Hospitals

- Pros:
 - Allows for individualized teaching: one-on-one
 - Role models for students
 - Introduced to “real world” of medicine from the beginning
- Cons:
 - Rapid pace
 - Time constraints
 - Multiple demands on the preceptor
 - Limited time for teaching
 - Preceptors need help in identifying student’s learning style
 - Lack of resident training



Principles of Clinical Teaching

- Learning is evolutionary
- Assess the developmental level of the student (1st rotation vs. 6th rotation)
- Participation, repetition, and reinforcement strengthen and enhance learning
- Variety in learning activities increases interest
- Readiness to learn enhances retention
- Immediate use of information and skills enhances retention
- Learning is enhanced if the student feels he/she is making progress (feedback)



Principles of Clinical Teaching

- Teach and have students develop clinical (critical) thinking skills
- Teach the student how to:
 - Take a thorough yet focused medical history and physical
 - Be able to reflect on the information gathered
 - Come up with an assessment and effective management plan
- Sink or Swim Model
 - Anxiety is created from a learning situation requiring high independence with low experience
- Structured Approach
 - Frustration occurs when low independence is allowed for students with high experience levels



Clinical Teaching

- Focus on skills and attitudes as much as, or more than, on knowledge
- History taking
- Physical examinations
- Clinical reasoning and decision making
- Developing differential diagnosis
- Communication (case presentations, oral and written)
- Making and carrying out plans
- Coordinating care
- Professionalism and ethics
- These are the Entrustable Professional Activities of the future



Six Essential Teaching Skills

- Establishing and monitoring mutual expectations
- Setting limited goals
- Asking questions
- Stimulating self-directed learning
- Giving feedback
- Capitalize on role modeling

Wilkerson et.al. J Gen Int Med 1990; 5; 44-53



How do You Increase Effectiveness and Decrease Stress as You Juggle the Role of Teacher and Clinician?

1. Prepare yourself and your staff to have a medical student
2. Review the syllabus
3. Set expectations of the student (printed list)
 - Dress, start time, office or hospital rules, parking, EMR, lunch, safety and security issues
 - Case presentations, topic reports, pre-rounds, post-rounds, after-hour call
4. Have the student give his/her expectations (What would he/she like to work on in your specialty?)



Scheduling Strategies for Precepting

- Focused observation
- Focused half days
- Wave scheduling
- Appointment modification
- Combination patient/research days



Focused Observation

- Students observe the preceptor during patient encounters
- Students observe you as a role model for specific aspects of the patient's visit
- Allows the student to observe you introduce variations of history, physical exam and patient care, depending on the patient's needs, and identifies what you believe is important in every encounter
- Initially (parts of first 1-2 days) helpful
- Excellent for the beginning student (those first 1-2 rotations)
- Not appropriate for the entire rotation
- Situational (difficult patient, bad outcome)



Focused Half Days

- The preceptor can see the projected schedule (morning and afternoon) and select one or two patients on whom the student can concentrate.
- The focus can be related to age, condition, assessment skills, or aligned with the objectives for the course the student is taking.
- Allows students time to review necessary information from the chart and/or from the evidence base, so they will be prepared to ask the patient appropriate questions and perform a focused examination and develop their diagnosis and plan of action.
- While the student is doing his or her assessment, the preceptor can see other patients and keep the schedule on track.
- Increases confidence in students
- Less overwhelming to newer students
- Keeps the preceptor on course



Wave Scheduling

2-3 patients are scheduled at the same time, and then the time slot is followed by a 10- to 15-minute break.

Student sees one patient while the preceptor sees the other 1-2.

There is time for the preceptor to see and discuss the student's patient and not fall behind.

Requires coordinating by the office staff.

TABLE.

“Wave Scheduling”

Time	Activity
8:00 to 8:15 AM	Student sees patient 1, preceptor sees patient 2
8:15 to 8:30 AM	Student and preceptor see patient 1 together
8:30 to 8:45 AM	Student charts on patient 1, preceptor sees patient 3
8:45 to 9:00 AM	Student sees patient 4, preceptor sees patient 5
9:00 to 9:15 AM	Student and preceptor see patient 4 together
8:30 to 8:45 AM	Student charts on patient 4, preceptor sees patient 6

Adapted from Ferenchick⁶



Combination Days

- Divide your day with the student
- Assign patients, rounds, surgeries for 1/2 to 2/3 of the day
- Assign other tasks in afternoon: research, current patient issue, case presentation
- Have student give presentation that afternoon or early next morning
- Allows you to finish afternoons on time



Six Essential Clinical Teaching Skills

- Establishing and monitoring mutual expectations
- Setting limited goals
- Asking questions
- Stimulating self-directed learning
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- Capitalize on role modeling

Wilkerson et.al. J Gen Int Med 1990; 5; 44-53



Traditional Precepting

- Learner examines and presents the case to the preceptor
- Preceptor asks for additional patient data
- Discussion about the case and care plan for the patient's care
- Problems with this method:
 - Patient care focused, not learner focused
 - Low level questions to clarify clinical data
 - Little or no feedback
 - Difficult to assess the learner's thought processes or level of understanding



One-Minute Preceptor 5-Step Microskills

- Get a commitment
- Probe for supporting evidence
- Reinforce what was done right or well
- Give guidance about errors and omissions (correct mistakes)
- Teach a general principle about the case
- <https://www.youtube.com/watch?v=54rNxIJyt9I>



1. Get a Commitment

- When: Immediately after the student has presented his/her case
- Push the learner to move beyond his or her level of comfort, and makes the student active in the teaching encounter.
- Allows you to assess how the learner has processed information
 - What do you think is going on with this patient? (top two diagnoses)
 - What laboratory/ imaging studies or information do you think we should get?
 - How do you think we should treat this patient?
 - What other diagnoses would you consider in this setting?
- All require a commitment from the student doctor. (Gives you insight into the learner's reasoning).
- See how the learner reacts under pressure.



1. Get a Commitment

- Cue: After presenting the facts of a case to you, the learner either stops to wait for your response or asks your guidance on how to proceed. In either case, the learner does not offer an opinion on the data presented.
- If you recognize the patient's problem, your immediate response is to tell the learner the answer. DON'T !!
- Preceptor: Instead, ask the learner to state what he/she thinks about the issue presented by the data. Issues may include gathering more data, proposing a hypothesis, developing a management plan.
- Rationale: Asking a learner how they interpret the data is the first step in diagnosing learning needs.
- DON'T:
 - Offer your opinion
 - Say things like, "This is obviously a case of pneumonia."



1. Get a Commitment

2. Probe for Supporting Evidence

- Ask what underlies the commitment statement.
- Allows you to observe the student's skills in clinical reasoning.
- You can determine if the learner had adequate evidence for the commitment.
- You need to fish out the lucky guesses.
- You can correct any faulty inferences.
- Hear their thinking.
 - What factors in the H and P support your thoughts?
 - What factors did you consider in making that decision?
 - What facts support your conclusion?
 - Were there other options you considered and discarded? Why?
 - Why would you use that medicine?
 - Why do you think this patient needs hospitalization?
- Opportunity to teach the logic.



1. Get a Commitment

2. Probe for Supporting Evidence

3. Reinforce what was done well (Positive feedback)

- Include specific behaviors that demonstrated knowledge, skills or attitudes valued by the preceptor
- Reinforce good skills
- Persist in carrying the student beyond his or her understanding
 - “I liked that your differential took into account the patient’s age, recent exposures, and symptoms.”
 - “Your diagnosis of pneumonia was well supported by your assessment.”
 - “Your assessment was well organized.”
 - “Nice incorporation of response to therapy.”
 - “Well-organized case presentation.”



1. Get a Commitment
2. Probe for Supporting Evidence
3. Reinforce What Was Done Well

4. Give Guidance about Errors and Omissions

- Tell them what areas need improvement, correct any errors and omissions or misperceptions.
- Errors uncorrected will be repeated
 - “During the ear exam, the patient seemed uncomfortable. Let’s go over holding the otoscope.”
 - “Your presentation detailed too much information in the PMH that was not relevant to your case.”
 - “I agree that at some point PFTs will be helpful, but right now the patient is acutely ill and the results may not reflect her baseline. We might get more appropriate information from a peak flow and pulse oximeter at this time.”



1. Get a Commitment
2. Probe for Supporting Evidence
3. Reinforce What Was Done Well
4. Give Guidance About Errors and Omissions

5. Teach a General Principle about the Case

- Brief teaching specifically focused to the encounter is a very effective learning tool.
- Helps learner effectively generalize knowledge gained from this specific case to other clinical situations
- Target to the learner's level of understanding
- Teach 1-3 general rules related to the case
 - “Remember, 10-15% of people are carriers of strep, which can lead to false positive strep tests.”
- “The natural progression of this disease is...”
- “Smokers are more likely to be infected with gram negative bacteria than non-smokers, so you might consider using a broader spectrum antibiotic.”



Clinical Thinking

The more a student processes and the less you say, the more successful the encounter is likely to be.

Make them think.

Ask more questions of them than they of you.



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Example

- Student: I saw a 47-year-old male with a complaint of cough, fever and SOB that has been going on for 4 days. The cough is getting progressive as is the SOB. It seems to be worse at night. He is developing some left-sided chest pain that gets worse when he coughs. He has tried OTC cough meds but they doesn't help. He is taking Tylenol and ibuprofen for the fever and chest pain. He states he is normally in good health with the exception of controlled hypertension. He takes lisinopril for the HTN and he smokes 1-2 packs/day X 25 years.
- On PE he is A O X 3 NAD. He is febrile. His heart exam appeared ok to me. His lungs had either crackles or rhonchi and some whistling in the left side. His ENT exam looked ok to me.



Example

- Preceptor (getting a commitment): “What do you think is going on?”
- Student: “I think he has pneumonia.”
- Preceptor (probing for supportive evidence): “Why do you think this?”
- Student: “Well it is progressive in nature, and he is a smoker and he has lung sounds suggestive of pneumonia.”
- Preceptor: “What other things could cause similar findings in this patient?”
- Student: “Maybe bronchitis or cancer?”
- Preceptor (reinforcing what was done right): “Your physical exam was good and your case presentation concise and organized.”
- Preceptor (giving guidance about mistakes): “I would suggest that you state your physical findings and not say things like the heart exam appeared normal to me. Too vague, and I do not know your depth of knowledge about the heart exam.”
- Preceptor: “What would you like to start as a treatment?”
- Student: “Antibiotics, maybe something like Keflex.”
- Preceptor (teaching moment): “People with chronic tobacco abuse who develop pneumonia have a higher risk of gram negative infections. Consider an antibiotic with a broader spectrum.”



Example #2

- Student: "I just saw a 48-year-old male in the clinic with a chief complaint of headaches. This patient has been in his normal state of good health recently. However, for the past few months, he has been having headaches. The headaches seem to begin in the afternoon and get progressively worse. By the evening, he usually has to take either aspirin or Tylenol or both, and must lie down to relieve the pain. After an hour or so, the pain is better, although the headache is not completely gone. By morning after a good night's sleep, the headache is no longer present. These headaches are now occurring about three times per week. They are not associated with an aura, nausea, vomiting, or blurry vision. The patient works as an investment banker and says his job is stressful. He describes things at home as going well. He has had a history of similar headaches off and on in the past, but his headaches have not been a problem for quite some time.
- "On physical exam, he appears well-developed, well nourished, in no apparent distress. His vital signs are within normal limits, including a blood pressure of 120/80. His HEENT exam is unremarkable, except I didn't get a very good look at his fundi. His lung, heart and abdominal exam were normal. His neurological exam seemed fine to me."



One-Minute Preceptor

- Preceptor (getting a commitment): "What do you think is going on?"
- Student: "Well, I'm concerned he might have migraine headaches."
- Preceptor (probing for supporting evidence): "Why do you think this?"
- Student: "Well, the headaches occur three times a week and usually begin about the same time. Even though he has a stressful job, I think we have to rule out migraines. He says he needs to lie down and the headaches get better, so maybe they're migraines, even though he doesn't have an aura. I'm also worried about a brain tumor because I couldn't see his fundi."
- Preceptor: "Are there any other causes of the headaches that you might consider?"
- Student: "Maybe tension headaches, but I'm really not sure."



One-Minute Preceptor

- Preceptor (teaching general rules): "I think the most important aspect of this case is that common things occur commonly. Of all the causes of headaches is this patient's age group, tension headaches are most common. He has a stressful job and the headaches seem to begin in the afternoon, which perhaps suggests that he gets stressed at work and then gets a headache. Migraines are a possibility, but not as likely as tension headaches in this case. I agree that we should make sure his fundi are normal, but this does not sound like a classic story for a brain tumor."
- Student: "Could you show me how to get a good look at his fundi?"
- Preceptor (telling what was done well and what needs to improve): "Sure. By the way, you did a good job of collecting and organizing the history and physical exam. Your presentations are improving. I particularly liked that you were able to tell me you couldn't get a good look at this patient's fundi. It's very important to be truthful about what you can and can't do. Your knowledge about headaches is a bit concerning to me and needs to improve. I would suggest you do a bit of reading about headaches as well as the classic presentation of a brain tumor, and that we discuss headaches at your next clinic session. Let's go see your patient."

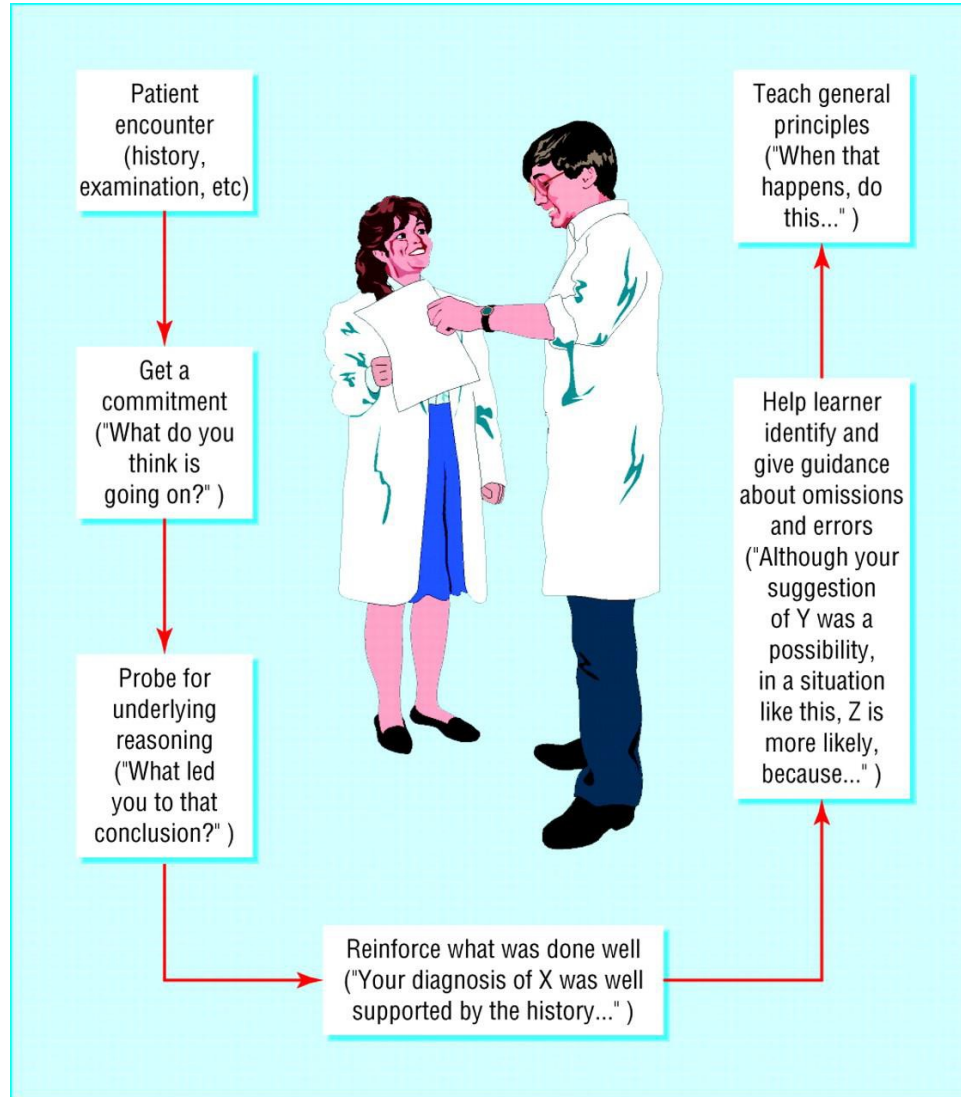


One-Minute Preceptor

- Learner-centered
- Supports assessment of learner's knowledge and clinical reasoning skills
- Supports focused teaching to learner's needs
- Encourages feedback to reinforce desired behaviors and reduce undesired behaviors
- Asking questions
- Stimulating self-directed learning
- Giving feedback



One-Minute Preceptor



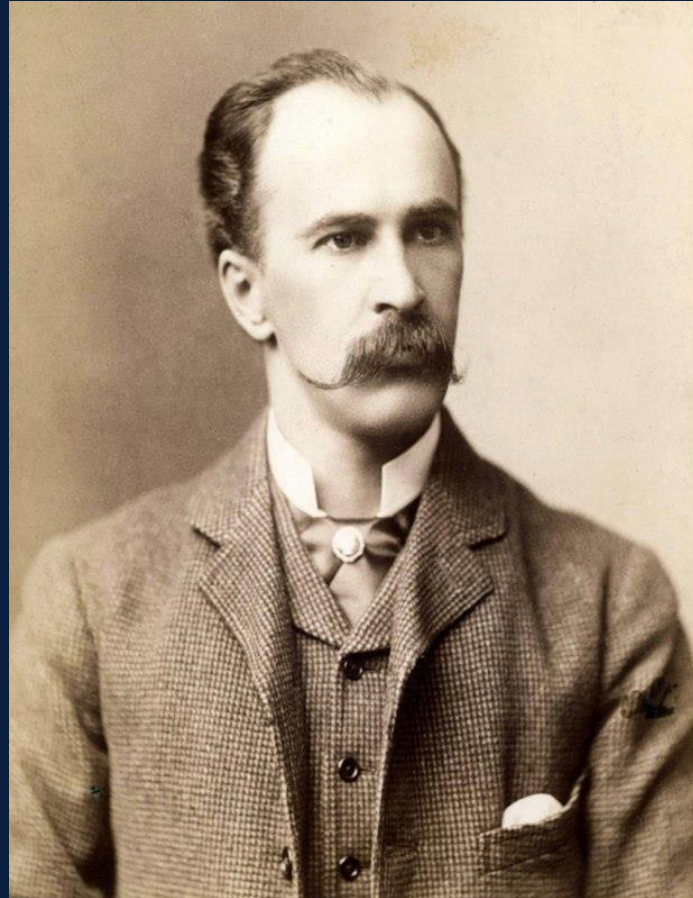
What Makes a Good Preceptor

The most important quality is willingness to teach



Questions?





*"I desire no other epitath...
than the statement that I
taught medical students
on the wards, as I regard
this as by far the most
useful and important
work that I have been
called upon to do. "*

- Sir William Osler

The medical faculty and staff of Liberty University College of Osteopathic Medicine thank you for all you have done for our student doctors



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Feedback



MENTORING MILLENNIALS

Linda S. Mintle, PhD

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Chair, Division of Behavioral Health

Deputy IX Coordinator



MILLENNIALS



We Need You!

- 70 million baby boomers about to retire
- Replaced by fewer than 50 million genXers
- Need millennials: Think recruitment from the ground up



The Match

- Boomers: Most experienced physicians in an organization; entitled, driven, competitive, anti-authoritarian, personal fulfilment, buy now / pay later
- Generation X: Self-directed, cynical, highly educated, balanced, self-oriented, autonomy, close friends and family, personal growth
- Millennials: Eco-friendly, digital natives, cultural diversity, truth, instant gratification, confident, want to contribute immediately, feedback and team oriented



Millennials: What Attracts?

- Radical transparency about everything (think social media)
- If they are a cog in the wheel of health care, they won't be interested
- Be exceptional and they will come--this is the generation that recommends everything



Millennials: What Attracts?

- Mentoring! Those who stay, more likely to have been mentored.
- They teach you technology, you teach bedside manner (Forbes)



Trends and Observations

- Greatest fear is failure -- they haven't been trained to fail
- Success measured by results, not by obedience



Trends & Observations

- Community Service: Diminished desire compared to medical students of the past
- Less likely to value social rewards and altruism than previous generations
- Survey Data (University of Michigan) show millennials demonstrate 40% lower empathy than prior generations



Trends & Observations

- They don't want people telling them what to do
- They need structure
- They have surface knowledge but struggle with depth



Johns Hopkins study

- Medical interns spend only 12% of their time interacting with patients
- Compares to 40% of time on the computer
- WHY? Increasing need for documentation or comfort?





- Give them constant challenges
- Lots of feedback, encouragement
- Ask them what they need
- Want measurable outcomes
- Want to be part of the team





- They have great ideas, so don't crush them
- Let them speak early in the process; listen
- Want authentic love, community





Modern Mentoring

Teamwork: Think Google and Sense of Purpose



Modern Mentoring

- They still look up to senior physicians as models
- Charismatic mentors live on forever
- Works both ways—you can learn from them, ex: palliative care
- Work life balance—Work harder for more money not reinforcing (flex and reduced hours)



Summary

- Be flexible
- Good listener
- Develop your emotional intelligence
- Less defensive, more open, assume good intentions
- Build teams
- Honor work/life balance
- Maintain humor
- Help with what and why, let them do how
- Invest in them as people
- Use technology to help



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A Note of Appreciation

