

# Teaching Across the Spectrum: Challenging vs Gifted Learners

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# Objectives

By the end of the session, participants will:

1. Recognize common deficits of medical learners
2. Utilize effective strategies to address these deficiencies
3. Stimulate and challenge the gifted learner

# Challenging Learner

# Challenging learners: How common is this problem?

- Range 3-15% of medical students in “academic difficulty” at any given time
- All Clerkship Directors in IM (2006) - 76% response rate; range 0-15%

# Residency

- Prevalence of “problem resident” - 7%
  - Insufficient knowledge - 48%
  - Poor clinical knowledge – 44%
  - Inefficient use of time -44%
  - Inappropriate interactions with colleagues or staff- 39%
  - Provision of poor or inadequate medical care to patients – 36%

# Identification of Challenging Learners

- Rarely done by the learner himself
- Often noted after several rotations
- Often assumed that problem will resolve with time and experience
- Often attributed to cultural or training differences
- Teacher experience improves accuracy

# Disciplined Doctors

- Case control study examined 235 grads of 3 medical schools (UCSF, Jefferson, U of Michigan) disciplined by 40 state medical boards; strong correlation between disciplinary action and **prior unprofessional behavior in medical school** (OR 3.0), severe irresponsibility and severely diminished capacity for self improvement strongest correlations; low MCAT scores and poor grades in the 1<sup>st</sup> two years of medical school also correlated but not as strongly.

# Disciplined Doctors

- National rate of disciplinary action among 725,000 physicians practicing in the US is 0.3%
- Among disciplined medical students “irresponsibility” had 8x risk of later disciplinary action.
- Most “resistant to self improvement” had 3x later risk of SMB disciplinary action.



# Remediation Techniques

- Survey study; 71 medical schools who conducted comprehensive Clinical Skills Assessment at end of 3<sup>rd</sup> yr clerkships. 75% response rate.
- Assessed confidence in remediation of 6 skill areas and analyzed using repeated measures of analysis of variance

Table 2

**Confidence and Satisfaction in an Institution's Remediation Process, from a 71-School Study of Remediation Techniques for Student Performance, 2007**

Statement	Mean (SD)*
<b>Confidence statement</b>	
I am confident in our exam scores	4.15 (0.66)
I am confident in our ability to diagnose student problems underlying low scores in our comprehensive assessment	4.04 (0.71)
I am confident in our ability to remediate history-taking problems	3.81 (0.92)
I am confident in our ability to remediate physical examination problems	3.81 (0.92)
I am confident in our ability to remediate communication problems	3.64 (0.90)
I am confident that our school's remediation process is effective	3.40 (1.03)
I am confident in our ability to remediate clinical reasoning deficits	3.25 (0.88)
I am confident in our ability to remediate knowledge deficits	3.17 (0.75)
I am confident in our ability to remediate professionalism problems	2.96 (1.06)
<b>Satisfaction statement</b>	
I am satisfied with our school's remediation process	3.51 (1.07)

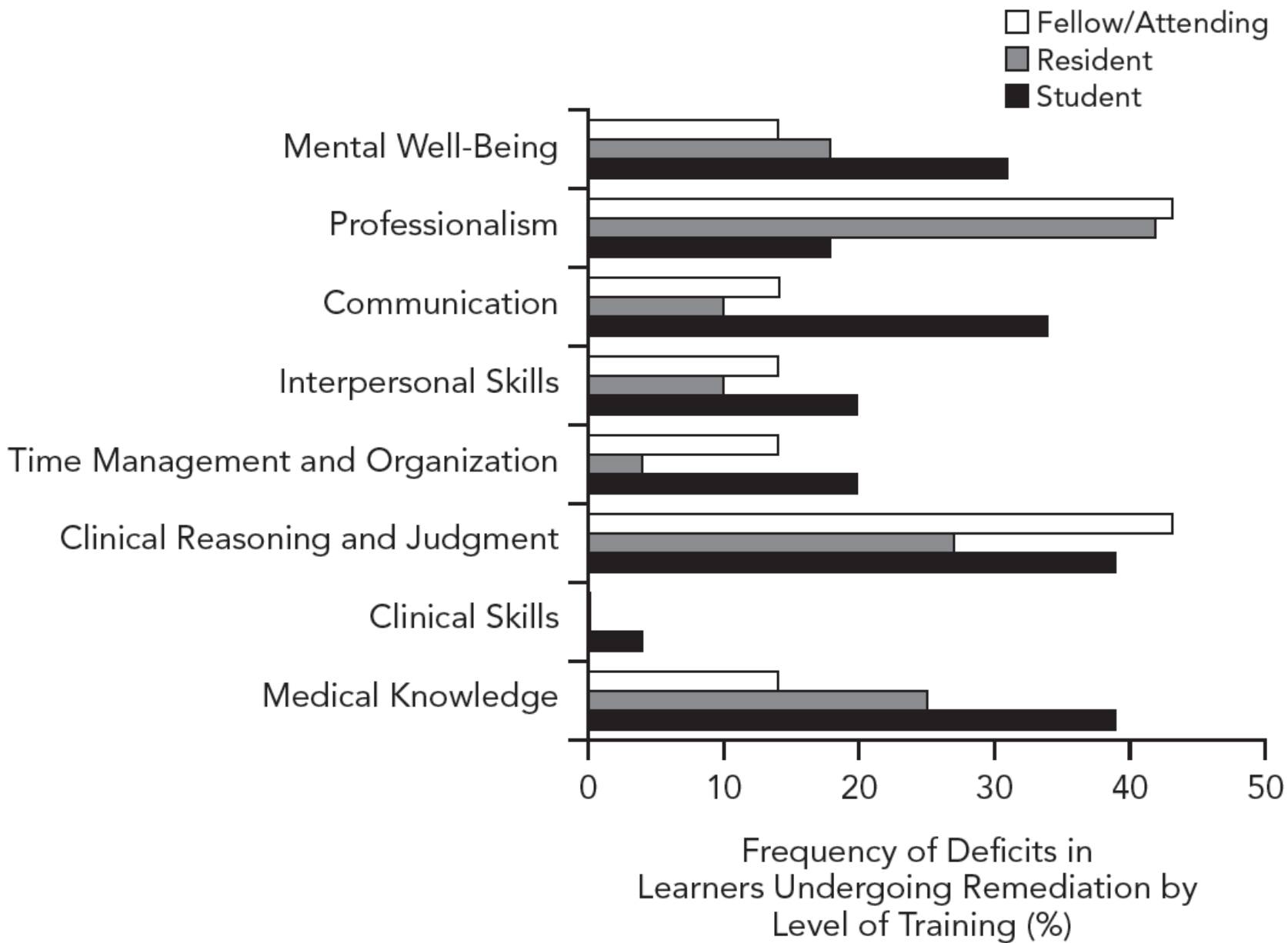
\* Mean and SD derived from 5-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, and 5 = strongly agree.

# Medical Student Struggles

- Organizing large amounts of information
- Integrating large amounts of information
- Time Management
- Test taking
- Test Anxiety
- Stress or anxiety not associated with testing

# Resident Struggles

- Insufficient medical knowledge
- Poor clinical judgement
- Inefficient use of time
- Inappropriate interactions with colleagues or staff
- Provision of poor or inadequate medical care to patients
- Unsatisfactory clinical skills
- Unsatisfactory humanistic behaviors with pts
- Excessive or unexplained tardiness or absences
- Unacceptable moral or ethical behaviors



# Framework for assessing deficits

## ACGME Competencies

- Medical Knowledge
- Patient Care
- Interpersonal Skills and Communication
- Professionalism
- Practice-Based Learning and Improvement
- Systems-Based Practice

# ACGME Competencies “Plus”

- Medical Knowledge
- Patient Care
  - Clinical Skills
  - Clinical Reasoning and Judgment
  - Time Management and Organization
- Interpersonal Skills and Communication
- Professionalism
- Practice-Based Learning and Improvement
- Systems-Based Practice
- Mental Well-Being

# Medical Knowledge

- Unable to answer knowledge-based, fact based questions
- Lacks evidence of reading and self study
- Poor written exam scores



# Clinical Skills

- Most evident during direct observation
- Physical exams lack key elements, are performed incorrectly or inaccurate information obtained.
- Does not understand what type of information is obtained by individual exam element
- Poor procedural/surgical skills
- Unable to answer technique questions about exam or procedure

# Clinical Reasoning and Judgment

- Has adequate knowledge when asked knowledge-based, fact based questions
- Good pre-clinical exam scores
- Extraneous information in the H&P
- Unable to focus history and physical
- Orders too many tests
- Difficulty assigning pre- and post-test probabilities
- Difficulty prioritizing the differential Dx and analyzing Dx
- Difficulty individualizing protocols/practice guidelines

# Time Management and Organization

- Unprepared
- Disorganized in appearance
- Disorganized in presentations
- Disorganized notes
- Disorganized thought process
- Shuffling through multiple documents on rounds
- Multiple incomplete tasks
- Starts earlier and/or leaves late
- Keeps patients waiting, running behind often
- Spends patient care time catching up on other tasks

# Interpersonal skills

- Difficulty functioning in a team
- High incidence of interpersonal conflicts
- Frequently attempts to transfer blame
- Inflexible with negotiations
- Difficulty reading social cues
- Awkward peer interactions
- Actions and questions seem inappropriate
- May expect too much or too little from peers, nurses, staff – inappropriate delegation

# Communication

- Has adequate knowledge and organization
- Poor oral presentations
- Not as articulate
- Struggles to answer questions
- Struggles to educate patients at their level
- Difficulty formulating and asking questions
- Struggles to convey variation level of urgency
- Poor chart documentation
- Needs to call patients or re-visit to obtain more info
- Appears to have more “non-compliant” patients than peers – due to poor communication skills with pts.

# Professionalism

- Poor pt-doctor relationships
- Unknown to patients
- Demonstrates lack of respect
- Inappropriate dress or comments
- Late, absent or unreliable
- Dishonest
- Lazy
- Disinterested in patient care or learning
- Unethical behaviors
- Hands off excessive amounts of work

# Practice-Based Learning and Improvement

- Lacks evidence of self-directed learning
- Does not set personal learning and patient care goals
- Does not utilize quality improvement methods
- Not asking or answering clinical questions
- Does not seek or accept feedback
- Does not know limits or seek help when needed

# Systems-Based Practice

- Does not value interprofessional input
- Neglects health care resources
- Does not consider risk-benefit analysis
- Does not advocate for patients
- Neglects transitions of care



# Mental Well-Being

- Wide variety of presentations
- Inconsistent performance

# What if multiple...?

- Address the most severe forms or most fundamental such as mental well-being and professionalism first as they influence every thing else.

# What is the preceptor to do?

1. Give feedback
2. Review expectations with the learner
3. Notify the appropriate leader (residency director, clerkship director, advisor)
4. Provide examples to them
5. Maintain confidentiality
6. Document learner's deficits
7. Help identify the greatest deficit and address it first. The Program Director or Clerkship Director can help you with this.

# How to address deficiencies?

Three main elements to almost all

1. Deliberate practice
2. Feedback
3. Self-Assessment

- If issue identified, work with the appropriate leader to help define remediation plans
- Earlier is better

# Medical Knowledge

- Ask specific factual questions
- Assign review article reading and follow-up to assure it is done.
- Focus on symptom based reading rather than disease based
- Emphasize understanding rather than memorizing – compare and contrast diseases with similar presentations

# Clinical Skills

- Assign reading or video watching and follow-up
- Demonstrate proper techniques, emphasizing specific parts of the exam or procedure
- Observe and provide feedback on exam or procedure skills repeatedly

# Clinical Reasoning and Judgment

- Are they biased?
  - Anchoring bias – initial impression is unchangeable
  - Availability bias – Dx chose because it was seen recently or comes to mind easily
  - Gambling bias – if 10 flips of coin come up heads, next still has 50:50 chance of being heads. After admitting 5 cases of CHF, 6<sup>th</sup> SOB still could be CHF
  - Confirmation bias – only placing weight on information that confirms their Dx.

# Clinical Reasoning and Judgment

- Teach DDX Framework
  - Anatomical – based on involved anatomy (RUQ pain)
  - Systems approach
    - RICHMOND
    - VINDICATE AIDS
  - Pathophysiology – anemia can be macrocytic, microcytic or normocytic



# Clinical Reasoning and Judgment

- Probe for most likely 2-3 DDx and reasoning behind and correct mistakes.
- Describe your clinical reasoning as alternative to theirs.
- What Hx or PE findings would change the Dx
- Help them create a list of clinical questions then have them answer them.

# Time Management and Organization

- Set expectations – you can complete H&P and come out to present to me in 15 minutes.
- Teach an organization system
  - Check-box to-do list
  - List of patients to see that day
- Prioritize the activities with deadlines for completion
- Role Model the ideal behavior

# Interpersonal and Communication Skills

- Role model
- Observe and provide feedback and suggestions for improvement
- Videotape and debrief if possible
- Reinforce positive interpersonal and communication skills demonstrated and reflect with the learner on those and difficult interactions

# Professionalism

- Have the learner self reflect on professionalism topics in writing
- Suspending self-interest is a core feature of professionalism – discuss what that means and how that is actually demonstrated in day to day work and life.
- Discuss examples of poor professionalism and impact on care, care team.
- Role model
- Identify a role model for the learner to try to emulate.

# Practice-Base Learning and Improvement

- Identify expectations
- Have the learner come up with a clinical question for each patient
- Have the learner develop a reading plan for the rotation
- Require that the student solicit feedback
- Follow-up on these to assure they happen

# Systems-Based Practice

- Discuss the role of teams and influence on care
- Have the learner come up with a patient hand off system and use it daily.
- Role model
- Observe and provide feedback
- Review risk:benefit analysis
  - Have the learner explore several common ones such as prostate cancer screening or aggressive blood pressure control.

# Mental Well-Being

- Refer for outside help
- Do not be the physician for the learner
- Be confidential
- Contact the program or clerkship leadership with concerns and get their guidance.
- Be supportive
- Do not be afraid to remove them from patient care if needed for safety issues

# Gifted Learners



# Common Approaches

- “I find they take care of themselves”
- “I assume that if they need anything special, they’ll come and ask me”
- “I get on my knees and thank God that I don’t have to worry about one resident graduating from the program”

# Gifted Adults

- 3-5 percent of the population
- Standardized tests; other notable skills
- May be placed in special education classes as children
- Giftedness persists into adulthood
- Enter professional careers at a higher rate than the non-gifted

# Defining Characteristics

- Exceptional memory
- Acquire new skills and concepts rapidly
- Insatiable curiosity
- Generate new ideas continually
- Intuitive
- Introverted
- Strong willed
- Driven by individual interests
- Strong sense of morality

# General Approaches

- Acknowledge the learner is outstanding
- Do not apply pressure to excel
- Take a collaborative approach
- Determine the learner's interests
- Individualize their curriculum
- Provide challenges

# Acknowledgement

- Encourage learning about giftedness
- Acknowledge potential
- Encourage pursuit of goals, interests, achieving full potential
- Delineate expectations

# Do Not Pressure

- No grandiose expectations
- Avoid spiraling ambitions

# Provide Challenges

- Challenge is the key ingredient
- Resist the urge to praise rather than teach
- Encourage further exploration
- Find creative ways of pushing the learner to expand knowledge

# Collaboration

- Be willing to admit limits of teaching ability
- No bluffing
- Model lifelong learning behavior



# Determine Interests

- Find out what excites the learner
- Encourage exploration in areas of particular interest
- Facilitate additional projects
- Insist on meeting all prescribed curriculum requirements

# Individualized Curriculum

- Create special learning opportunities
- Individualized experiences
- Carve out time as much as possible
- Insist on finished products

# Specific Recommendations

- Teach beyond the immediate patient
- Teach patient care principles
- Invite the learner to educate others
- Encourage personal development
- Provide opportunities to work with other high achievers

# Teach Beyond the Patient

- Use actual patients as starting points
- Vary presentation or symptoms, “what if...?”
- “Teaching Scripts”

# Teach Principles

- Focus on tacit concepts
- Humanistic aspects of medicine
- Cultural impact on care
- Narrative concepts
- System issues

# Encourage Educating Others

- Morning report, grand rounds, publication in the medical literature
- Allows in depth exploration of a topic
- Educates peers
- May spark an interest in teaching

# Personal Development

- Teaching
- Scholarship – research, presentations or writing
- Hospital committees
- State, regional and national organizations

# Challenging and Gifted

- Ends of the spectrum
- Both need individual attention
- Use the Clerkship and Residency Directors for help and advice
- Feedback is important
- Follow through with the learners for assigned tasks
- Be confident. You have more experience than them and are the perfect person to teach them.



# Questions?

- Feel free to contact me with questions or for more information

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