

MHS

TALENT DEVELOPMENT

Emotional Intelligence: *Connecting Training, Education & Medicine*

PROUDLY SPONSORED BY MHS TALENT DEVELOPMENT



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Original Principal Investigator (PI)



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ACKNOWLEDGEMENTS

- MHS
- WesternU & COMP Administration
- American Osteopathic Association (AOA)
- American Assoc. of Colleges of Osteopathic Medicine (AACOM)
- Fanlong Dong, PhD (Statistician)
- Steven Henriksen, PhD (VP Research & Biotechnology)

- Participating Students
- Additional Participating Medical

School Faculty & Administration:

- Niela Darnani, MS
- Scott Helf, DO, MSIT
- Michael Seffinger, DO
- Janice Blumer, DO
- Marian Safoui, MD
- Helen Musharbash, MS
- Anthony La Porta, MD, Clint Adams, DO, & RVU Team

TODAY'S OVERVIEW

- Share overarching highlights & findings of the WU large-scale, inter-professional (IPE), longitudinal study of osteopathic medical student Emotional Intelligence (EI)
- Share identified EI risk factors linked to physician burnout
- Explore EI trends in osteopathic medical students & opportunities for structural changes to medical school curricula to mitigate burnout
- Discuss results and implications for medical military students
- Suggest strategies to improve physician resilience & increase autonomy





STUDY ORIGINS

Original Motivation:

Medical School Admissions circa 2010

THE EQ-i 2.0 HIGHER-ED MODEL



“Success at the post-secondary level is a complex mix of academic, emotional, and social skills. Student success is thus more than just a high GPA as it also includes:



Forming new relationships



Modifying existing relationships



Learning new study habits



Adjusting to increased academic demands



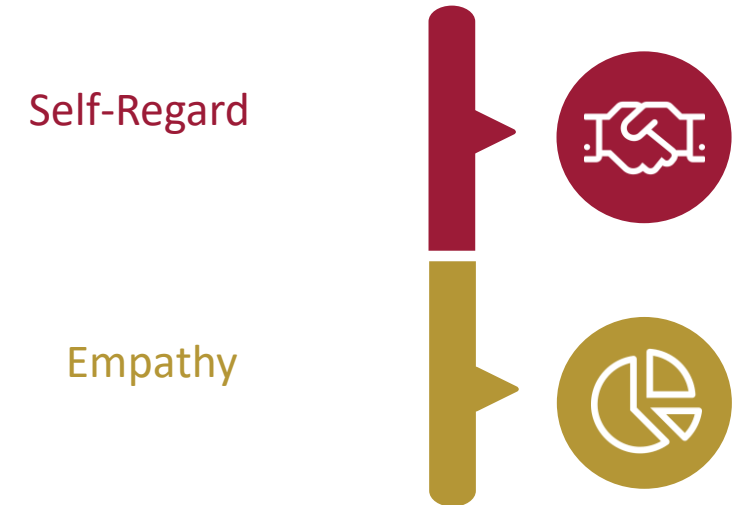
Learning to live with increased independence”

EMERGING PATTERNS ON GROUP REPORTS:

- Overall EI trending downward across matriculation
- **Highest baseline scores:**
 - Empathy, Self-Actualization, Social Responsibility
- **Lowest baseline scores:**
 - Flexibility, Independence, Problem-Solving, Reality Testing
- Highest mid-way scores: Impulse Control (Empathy gone)
- Lowest mid-way scores: Self-Regard
- Lower Self-Regard prominent on in-coming residency assessment

INITIAL STATISTICAL TREND ANALYSIS OF DO 2014-2016 SUPPORTED IDENTIFIED DOWNWARD TRENDS

Biggest drops were in:



- Published article about **SELF & OTHER** in **JAOA**:
 - <https://jaoa.org/article.aspx?articleid=2765123>
- Awarded **AOA grant** for continued study to confirm trends

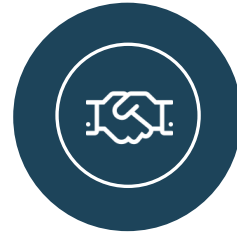


EI determined useful for student **Professional Identity Formation (PIF)**

It's inclusion also promoted the value of **Self-Awareness**



Results supported need for **Resiliency Training**



Culturally accepted at the university



Additional assessments provided added texture:

- Learning styles (LSTI)
- Hardiness resilience gauge (HRG)



In addition to PIF, EI studies provided important information for:

- Faculty Development
- Student Performance Committee
- Curriculum Development & Reform
- Admissions Processes
- Student Advisement & Mentorship
- Career & Professional Development



(DECLINING) EMPATHY

Declining **Empathy** is heavily studied in medical students.

- Empathy does not exist in a vacuum
- Helps to study it in context/relation to other important traits



FIT WITH A **DO** PHILOSOPHY

Person is a unit of mind-body-spirit



EMOTIONAL INTELLIGENCE

EI is linked to improved:

- Empathy & Doctor-patient relationship
- Teamwork
- Communication
- Stress Management (Perception of stress / adaptive success)
- Leadership
- Patient Safety & treatment outcomes

SAMPLING OF HEADLINES FROM MEDICAL LITERATURE

Over half of US Doctors Have Considered Quitting Medicine, According to “Physician Misery Index”

Whalen, J (March 17, 2015) CMTDPCI Journal (Geneia’s Physician Misery Index 2015)

Physician Burnout Climbs 10% in 3 Years, Hits 55%

- Wift, D (December 2015), Medscape Multi-specialty

How to Respond to the Despair from Physicians

- Fitch, S (May 7, 2014), Kevin MD.com

Depression Prevalence Among Resident Physicians Extraordinarily High

- Herman, A O (December 9, 2015), Medical News Physicians First Watch

Physician burnout, which directly affects quality of care, safety of patients, treatment outcomes, patient satisfaction, nurse turnover, hospital staff morale, and financial performance, occurs at alarmingly high rates.^[5,6] As stated succinctly by Dyrbye and Shanafelt,^[7] "Physician burnout is threatening the foundation of the US medical healthcare system."

WHAT IS “BURNOUT?”

*An actual diagnosis characterized as a
“state of vital exhaustion”*

Symptoms can include:

- Chronic fatigue
- Impaired judgment
- Reduced compassion/empathy
- Lost productivity
- Reduced sense of accomplishment despite evidence of success
- Imposter syndrome
- Depression &/or anxiety
- Substance Abuse
- Suicide

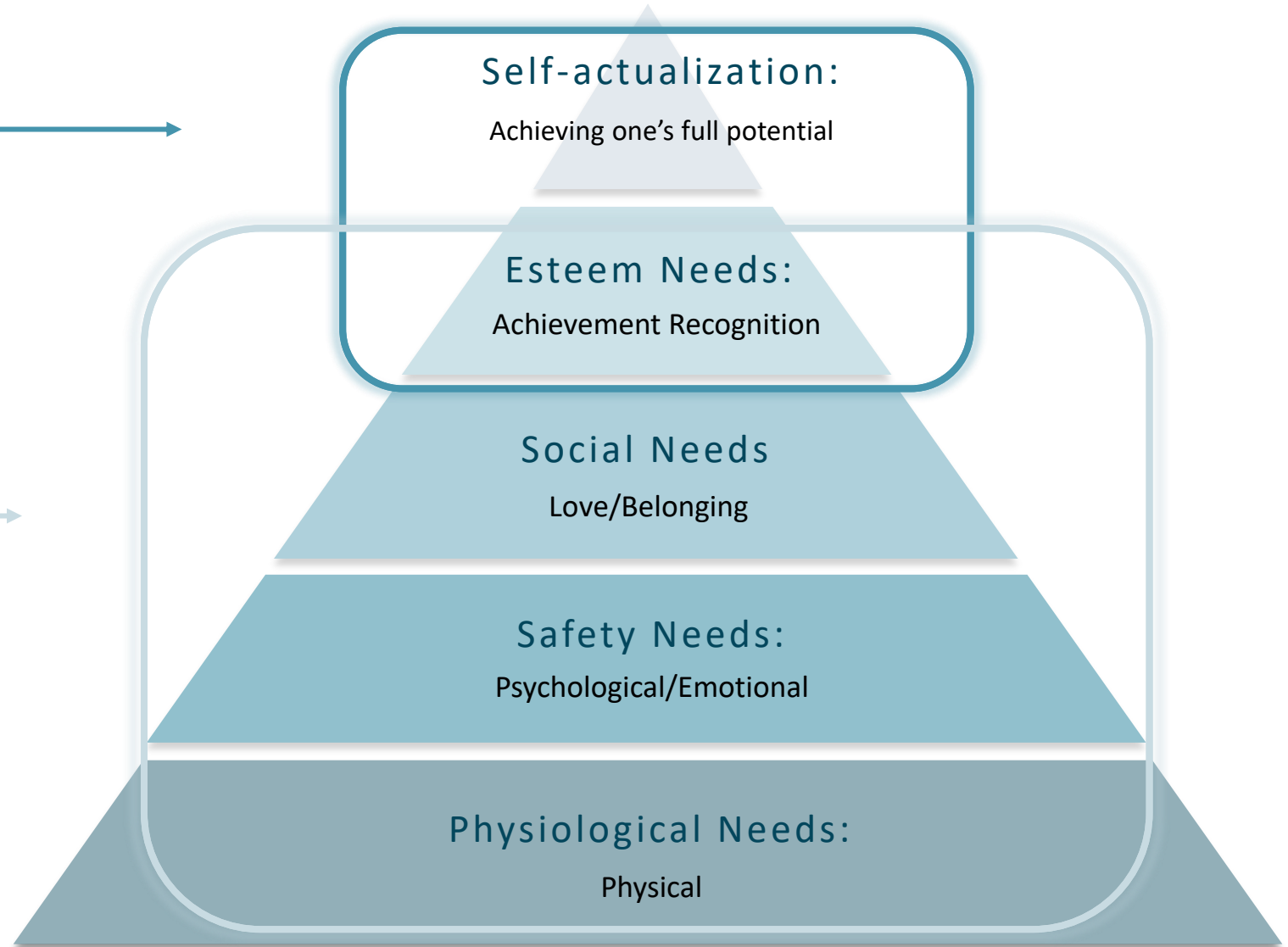
Contributing factors:

- Culture
- Toxic healthcare system
- Compensation/Debt
- Bureaucracy/Politics
- Workload
- Resistance to reaching out for help
- Medical School/Training
 - Evidence burnout actually takes root in **medical school**

GROWTH NEED

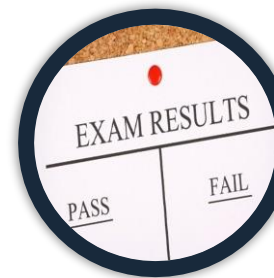


DEFICIT NEEDS



GROWTH DEMANDS OF MEDICAL SCHOOL

COMFORT
ZONE



THE “TRANSFORMATIVE PROCESS” OF PROFESSIONAL IDENTITY FORMATION (PIF)

“PIF is a transformative journey through which one integrates the knowledge, skills, values, and behaviors of a competent, humanistic physician with one’s own unique identity and core values. The education of all medical students is founded on PIF.”

(Holden & Buck, et. Al, 2015)

Wald, HS (2015) Academic Medicine (Theme issue on Professional Identity)



Doing the work of a doctor
vs.
Being a Doctor



“How do I figure out what I
want to do if I don’t know who
I am supposed to be?”

*- David P. Sklar, MD, Editor, Acad Med, June
2015 Theme Issue of Professional Identity*

Jarvis-Selinger et al describe the physicians’ process during education as a “series of stages in which trainees construct new identities and abandon old ones ‘at the level of the individual, which involves the psychological development of the person, and at the collective level, which involves a socialization of the person into appropriate roles and forms of participation in the community’s work.’”

Acculturation Model

Phase One

Absence of Conscious Awareness

- Undifferentiated

Phase Two

Dissonance

- Student-Expert Tension
- Can induce *Imposter Syndrome*
- Offers “teachable moments”

Phase Three

Immersion

- Gaining footing
- Creating bonds
- Developing coping skills

Phase Four

Internationalization

- Gaining competence & confidence
- Starting to see self as a professional

Phase Five

Integration

- Adoption of professional value system & understanding of place in the community

TEACHABLE MOMENTS

The Tension of Being a “Student-Expert”



PERSONAL
ME

??

PROFESSIONAL
ME

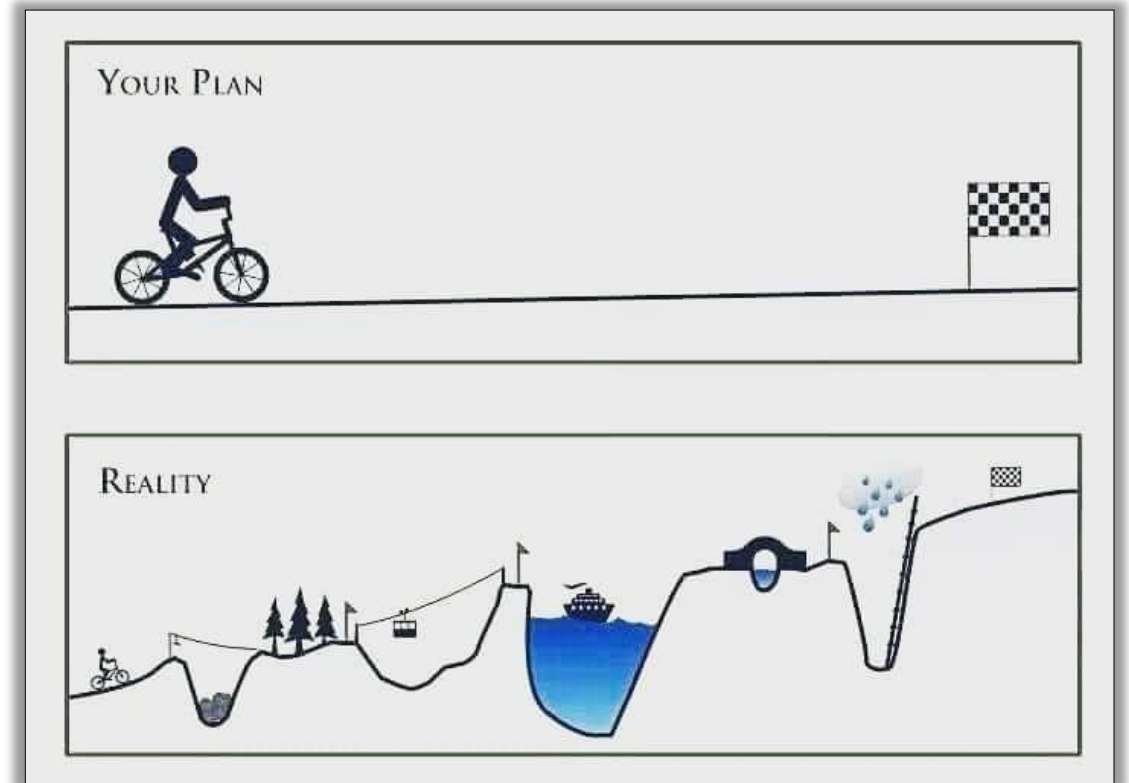


EXPERT SUGGESTIONS

For combatting Stress/Burnout

- Mindfulness/Self-awareness
- Self-regulation
- Connection
- Compassion
- Creativity
- Journaling
- Self-worth
- Gratitude
- Support systems
- Higher purpose

We need tools to identify & mitigate risk factors!



Are there identifiable trends in osteopathic medical student EI linked to burnout? If so, can these risk factors be positively impacted &/or mitigated with educational interventions?

Longitudinal prospective cohort study using a combination of statistical analyses to identify TRENDS:

PRE-POST T-TESTS



REGRESSION ANALYSES



ANALYSES OF VARIANCE



TRENDS ACROSS
GROUP/CLASS REPORTS
PER ADMINISTRATIONS



STUDY EVOLUTION & SCOPE

College of Osteopathic Medicine of the Pacific (COMP): Class of DO 2014

Approximately 300 per class

- DO 2015 (3 admins)
- DO 2016 (3)
- DO 2017 (3)
- DO 2018 (3)
- DO 2019 (2)
- DO 2020 (2)

WesternU College Expansions

Approximately 50-90 per class

- Dentistry
- Optometry
- Podiatry
- Graduate Nursing
- Physical Therapy

Additional Offshoots

Medical Military Students

- RVU & KCUMB (approx. 40 per class)

Residency Training

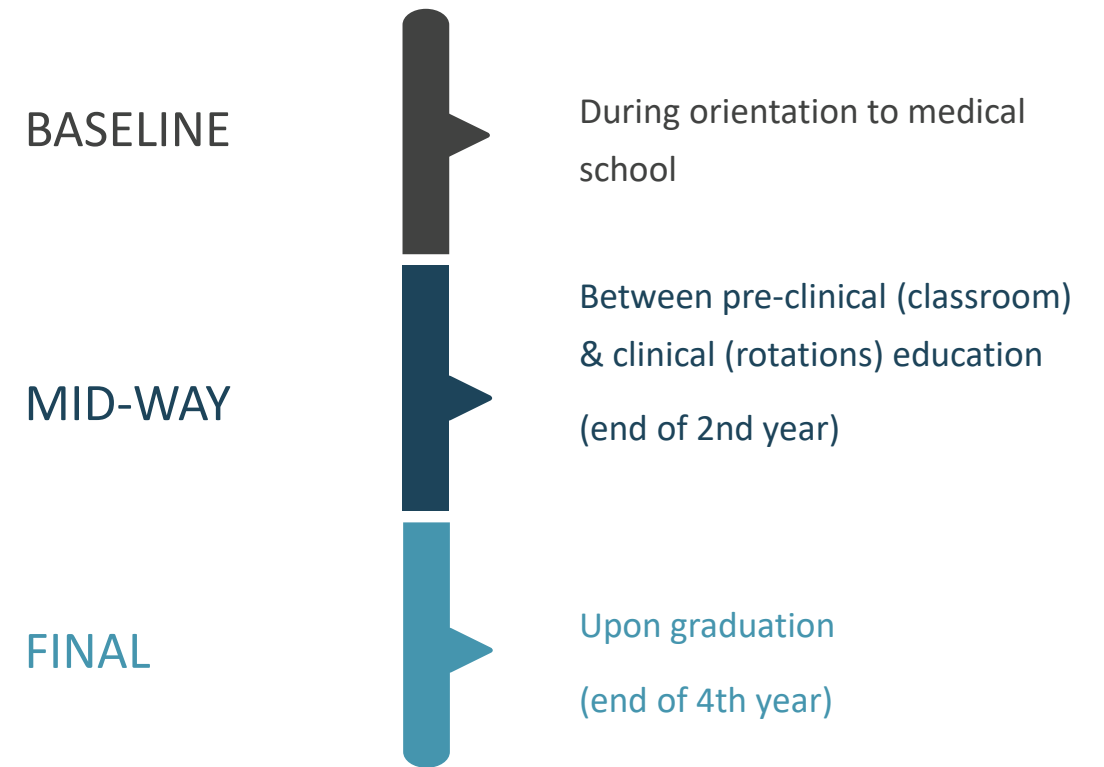
- Community Memorial Health Systems (Ventura) (approx. 22/class)

- In-coming students were provided an orientation to EI, it's relevance to medical school, PIF, neuroplasticity & growth needs
- Research was shared regarding EI, clinical practice, & physician burnout to help students form connections & encourage buy-in
- Students received individualized summary reports & were offered counseling to improve application
- Group report results were later shared with each class with suggestions to strengthen EI in weaker scoring areas
- Assessments were administered online
- Incentives approved to fight attrition for 2nd & 3rd administrations (course points, gift card drawings) which later increased sample size from 17% to 69 % & 93% across 3 administrations

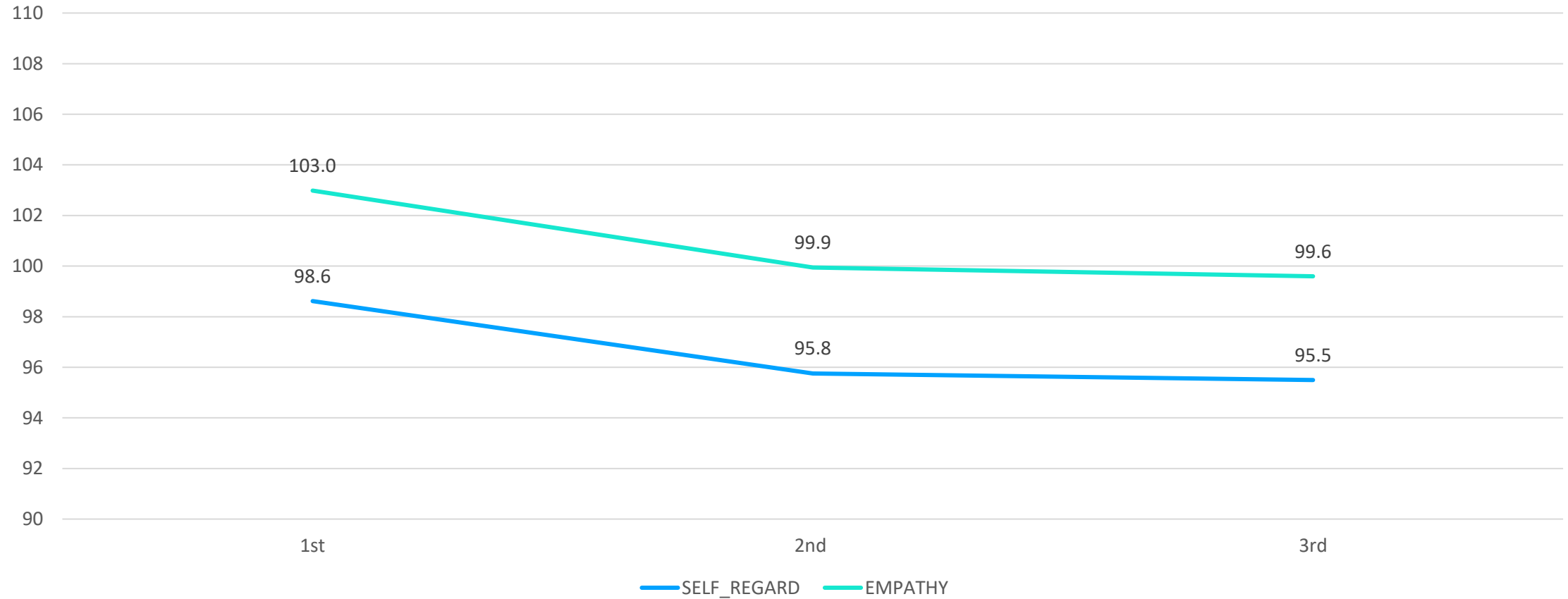
ADMINISTRATION

*Assessment given at 3 critical junctures
across matriculation*

Assessments were provided to students at 3 time points:

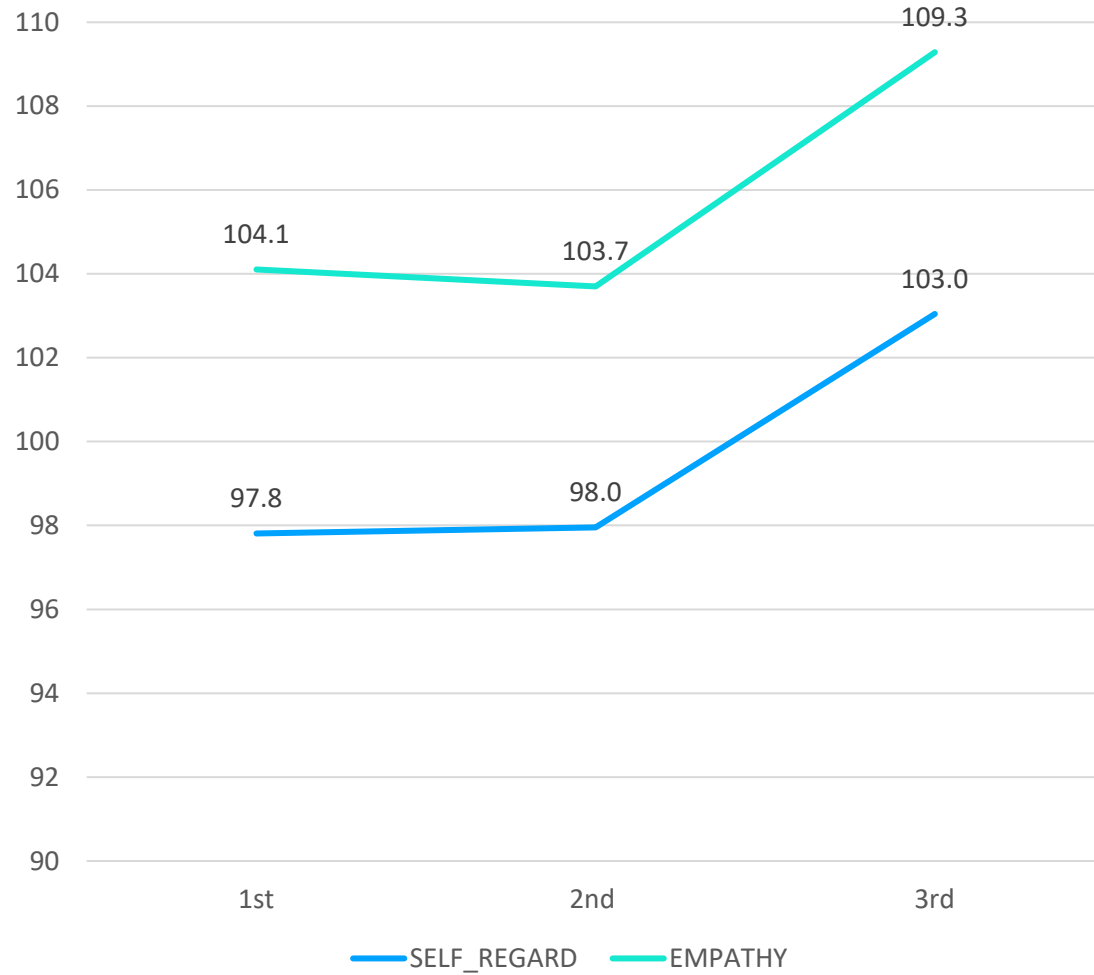


DO 2014-16 Trend of Self-Regard & Empathy

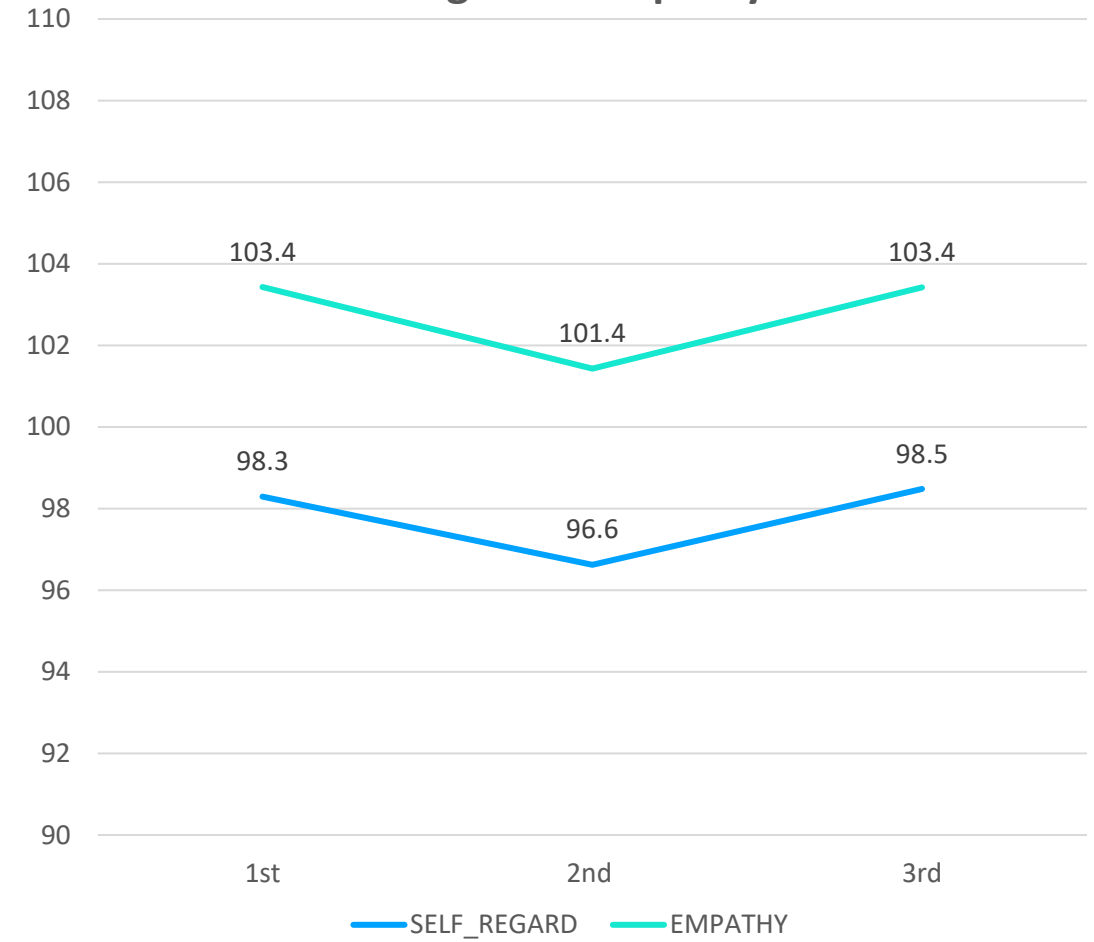


- Incorporation of ADULT LEARNING MODELS to increase student responsibility for their own development
- Improved communication channels for students & faculty/preceptors
- Streamlined pathway between pre-clinical-clinical education & residency
- The 3rd/4th year *Essentials of Clinical Medicine* (ECM) course, a distance learning course that parallels rotations, was restructured to support the acquisition of **Entrustable Professional Activities** (EPAs), mirroring CME framework
- Students offered a variety of activities to choose from giving them some AUTONOMY in directing their own learning
- Students logged their own experiential learning activities, further reinforcing self-responsibility & countering negative filtering that could impact self-regard
- The rotations experience was enhanced. While this mainly impacted the 3rd and 4th years, the Office of Clinical Education began interfacing during their 1st year. This included frequent contact with class representatives & a Facebook page with the goal of giving context to classroom learning.

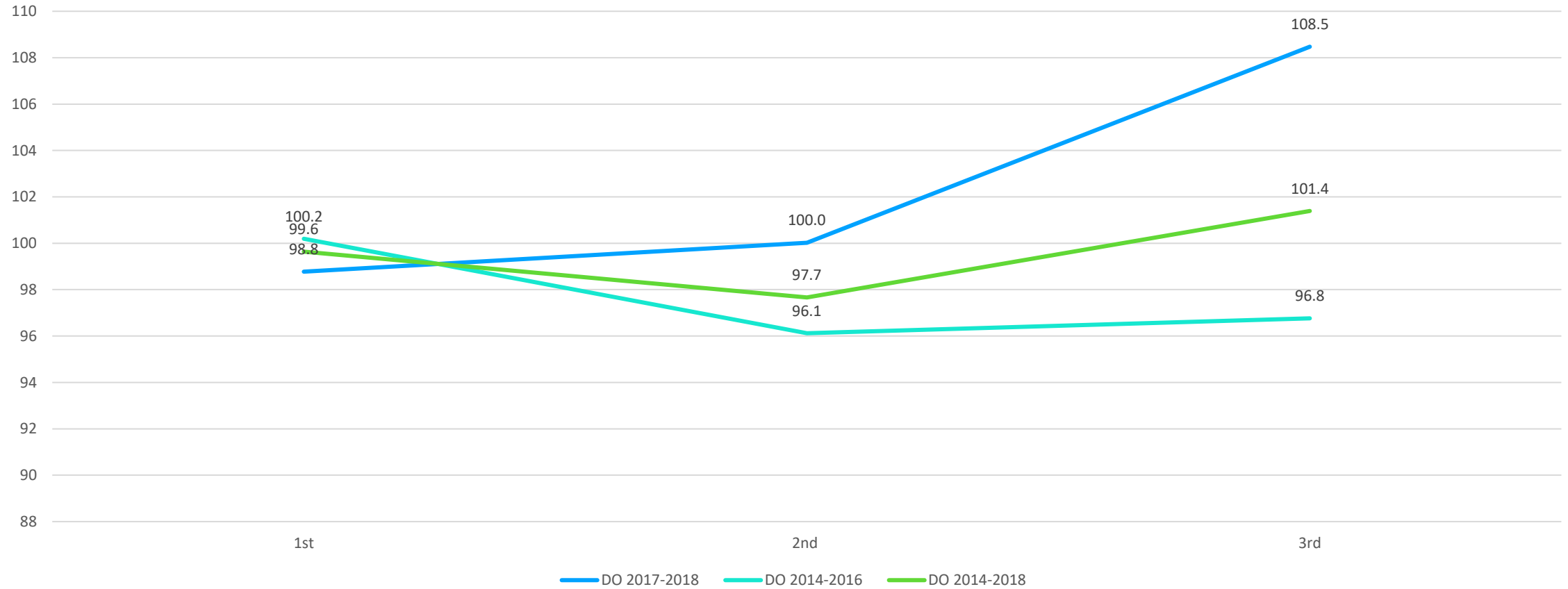
DO 2017-18 Trend of Self-Regard & Empathy



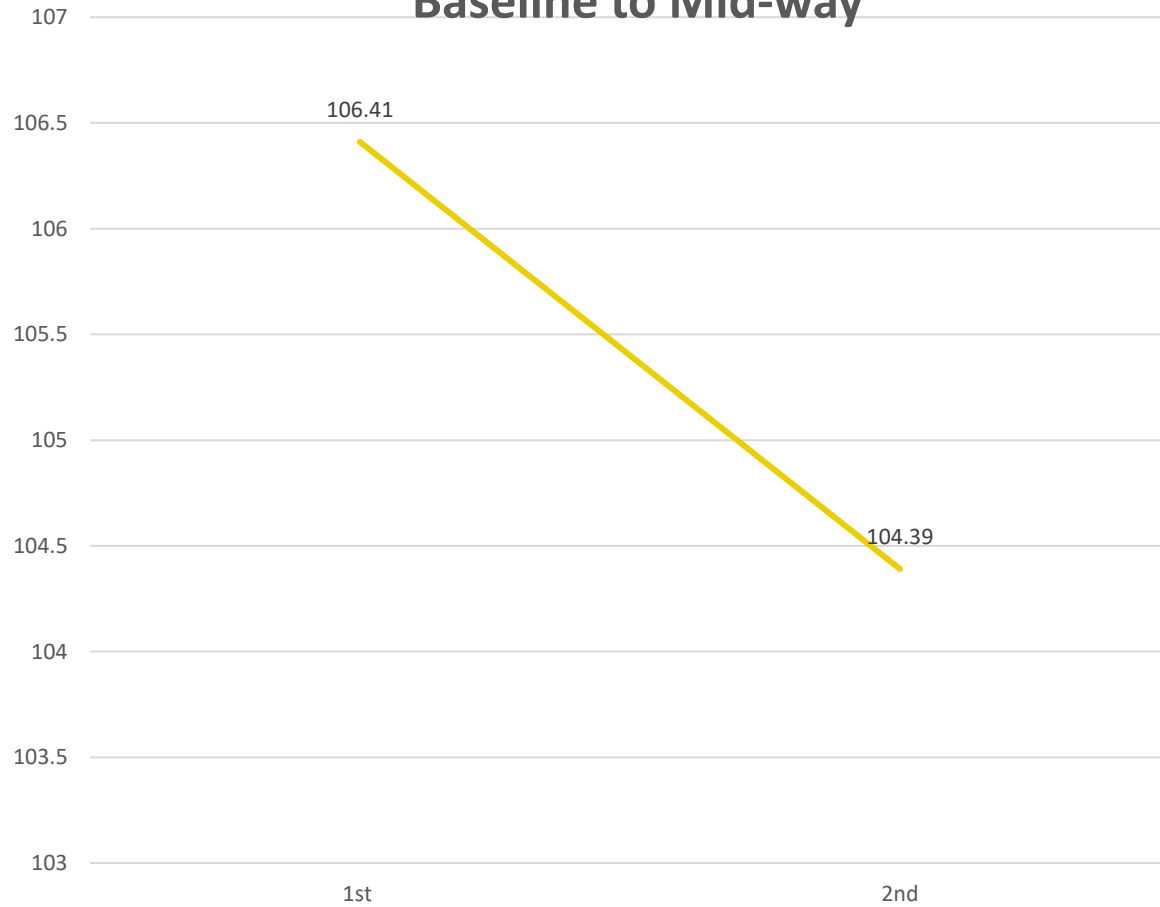
DO 2014-18 Trend of Self-regard & Empathy



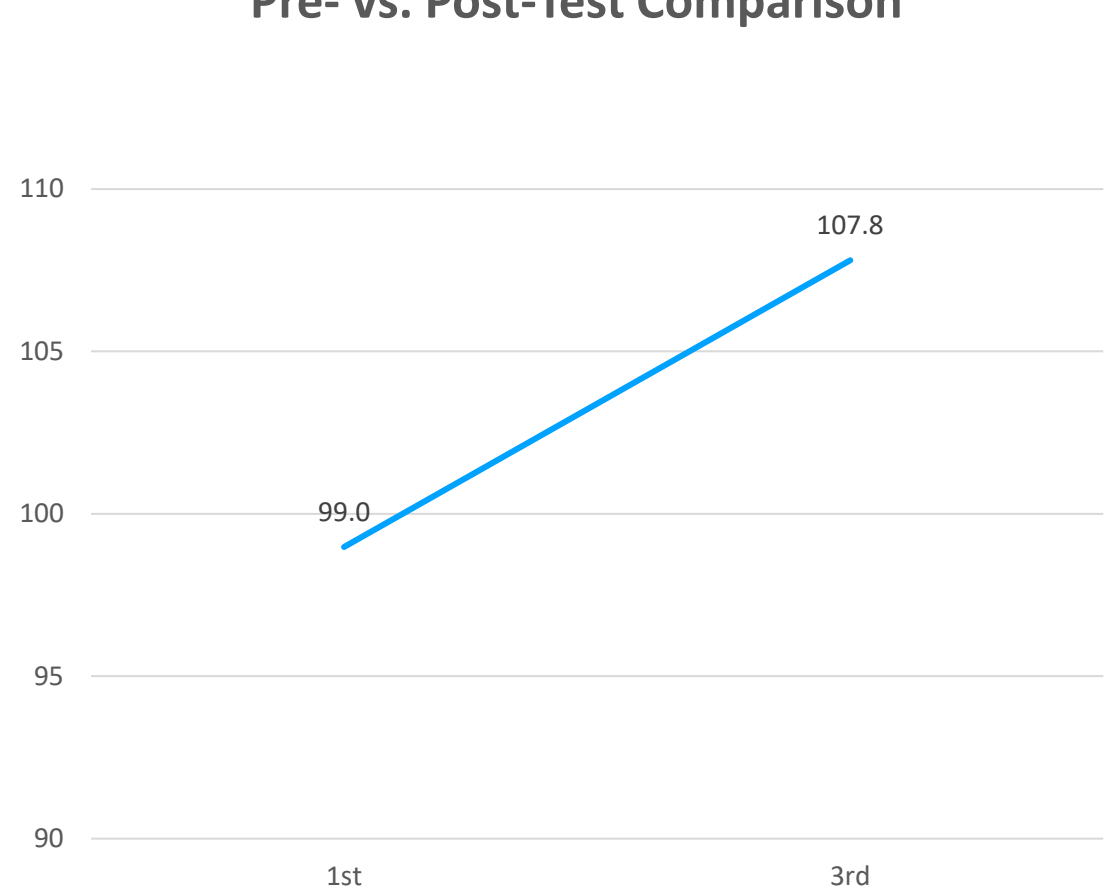
Trends in Total EI



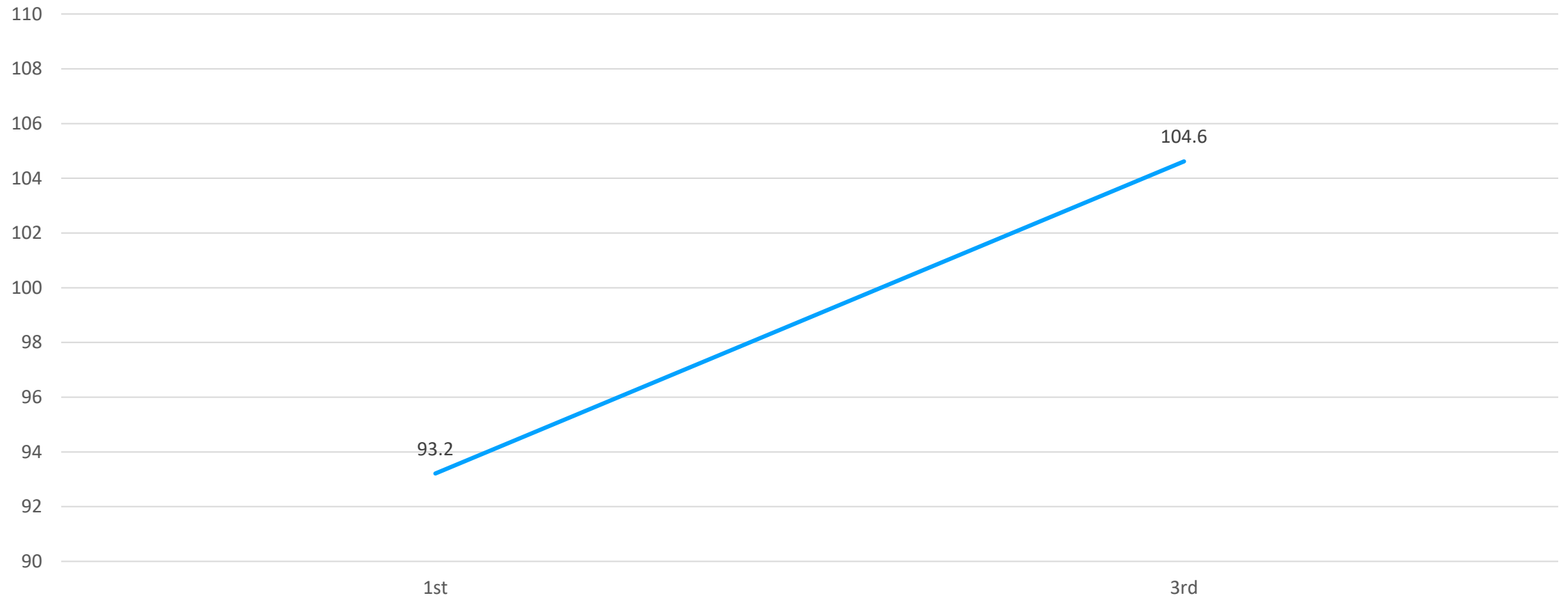
DO 2019-20 (93%) Overall EI Trend Baseline to Mid-way



DO 2017-18 (69%) Overall EI Pre- vs. Post-Test Comparison



DO 2017-18 Trend of Independence



GROUP REPORTS & IPE

- Over 20 DO Group Reports:
 - 100% showed highest incoming score of **Empathy**
 - 83% of subsequent administrations showed **Self-Regard** as a concern
- Residency
 - **Self-Regard** a lower scoring area at baseline/incoming
 - Burnout inventory showed moderate levels of burnout at baseline/incoming
- No other health profession showed declining EI traits
- Physical Therapy showed an INCREASE in **Self-Regard** mid-way
- This suggests something unique occurs in PIF that is specific to medical students/physicians that needs further exploration

- Sufficient evidence of the need for EI to be integrated into medical education
 - EI plays a role
 - This role is dynamic and interactive
 - Curriculum can & does impact EI (may be positive or negative)
- **Self-Compassion** training may be needed to balance & enhance empathy
 - If Self-regard is down, motivation to express empathy may be impacted
 - If Self-regard is down, positive PIF may be impacted
- The role of **PHYSICIAN AUTONOMY** needs to be further explored & understood with regard to physician burnout, resilience, performance & well-being

OVERALL IMPLICATIONS

MEDICAL MILITARY STUDENT STUDIES

- *Constant demands for adaptation*
- *Dual challenges of Medicine & Military*
- *Multiple Hierarchies*
- *Stress*
- *Separation*
- *Trauma*
- *Fatigue*
- *High stakes decisions*
- *Moral injury*





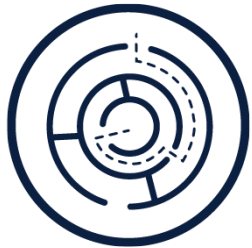
INITIAL MEDICAL MILITARY STUDY EI RESULTS

- **Self-Actualization & Impulse Control** high on both Pre- & Post-test
 - Emotional Self-awareness replaced Empathy as high scoring on post-test
- Lowest scoring subscales on both pre/post:
 - Flexibility
 - Independence
 - Emotional Expression
- On post-test, **IMPULSE CONTROL** significantly higher than:
 - Emotional Expression
 - Independence
 - Problem Solving
 - Flexibility
 - **Could suggest pattern of high-performance focus, constricting emotions, following orders**

HARDINESS RESILIENCE GAUGE (HRG) ADDED

Hardiness refers to one's resilience & ability to cope with stressful & unexpected situations. Previous studies have shown that higher levels of resilience correlates to improved stress tolerance and may be protective effects against post-traumatic stress disorder and burnout symptoms.





CHALLENGE

Seeing change and novelty as exciting and as an opportunity for you to learn and grow



CONTROL

Having a sense of self-efficacy and the belief that you can influence outcomes in your life



COMMITMENT

Being engaged and seeing most parts of your life as interesting and meaningful

“Military Medical students immersed in a hyper-realistic surgical training environment leads to improved measures of emotional resiliency by both Hardiness and EI evaluation.”

A total of 68 second year medical students enrolled in the US military scholarship program from five United States medical schools participated in this study.

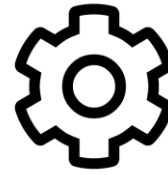
During a six-day hyper-realistic surgical simulation training course, students rotated through different roles as part of a medical team & responded to several mass-casualty scenarios.

EI 2.0 & HRG were administered/assessed at two time points:

- PRE-test: on arrival (pre-event)
- POST-test: after completion of the course



HRG & EI scores/sub scores consistently improved from pre-event to post-event.



No difference in training benefit was observed between genders but were observed by age where age was more often associated with EI.



Factor analysis indicated that the HRG and EQ-I 2.0 assessment tools measured predominately different traits although they share some commonalities in some components.

- EI is an active, dynamic process that can & does impact student development & PIF

 - EQ-i 2.0 can help to identify risk factors for physician burnout

 - These traits can be mitigated with effective educational & curricular interventions

 - Medical military students may have compounded challenges
- Effective training can improve EI & may serve to mitigate burnout & possibly PTSD

 - All studies have limitations. These included:
 - Exploratory aspects of study
 - Small initial sample size across all 3 administrations
 - Student population DO only & from specific institutions

 - Further research can help explore the ways in which we can support our (developing) physicians, particularly with regard to the roles of:
 - Self-compassion (to address self-regard & empathy)
 - Physician autonomy (independence)
 - Hardiness & resilience



THANK YOU!

ANY QUESTIONS?

Check in regularly on our social media channels



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