Efficacy of Holistic Admissions in Health Sciences Education: A Pipeline Model for Implementation at Community Colleges

Strategies to Achieve Alignment, Collaboration and Synergy across Delivery and Financing Systems

Research-in-Progress Webinar
Nov 13, 2024
12-1pm ET

Agenda

Welcome: Systems for Action

Presenters: Robert Pettitt, Stephanie Richardson, Cher Knupp, Mindy Bateman, and Matt Harris | Salt Lake Community College

Commentary: Libby Parr | Intermountain Health

Q&A:

Robert Pettitt, PhD
Dean, School of Health Sciences
Salt Lake Community College

Bob Pettitt began his health sciences career in sports medicine/athletic training. He went on to earn a PhD in Exercise and Sports Science from the University of Utah, was awarded a Fellow of the American College of Sports Medicine and is a certified member of the National Athletic Trainers' Association and the National Strength & Conditioning Association. He has published over 90 peer-review articles, given over 100 presentations, and is author of two books: Exercise Physiology Laboratories (2009) and Critical Speed (2023).

Stephanie Richardson, PhD, RN
Associate Dean, Division of Nursing
Salt Lake Community College

Dr. Richardson earned her nursing undergraduate degree from the California State University and her graduate degrees from the University of Utah. Her clinical career is centered upon nursing care of the critically ill adult. In academe, she has developed expertise in teaching methods and outcomes, in online and active learning, and in electronic media. She has been recognized for her teaching excellence and innovation with multiple peer awards – some of them interdisciplinary in nature. She has successfully led several interdisciplinary and nursing leadership positions, including Center Director, Division and Department Chair, and Associate Dean. She has experience with large federal grants from inception to presentation of results. Her most recent publications have presented findings in the areas of remediation best practices, teaching presence in online courses, and EHR data use.

Cher Knupp
Director, Health Sciences Admissions, Marketing and Outreach
Salt Lake Community College

Cher Knupp is Director of Health Sciences Admissions, Marketing and Outreach, working to drive the holistic admissions initiative for eight health care programs. Before Salt Lake Community College, she was a project coordinator for the School of Medicine Office of Admissions at the University of Utah where she played a key role in the development and implementation of holistic admissions. Over the past 14 years she has found a passion for providing equitable opportunity for students through holistic admissions and the impact it has on local health care communities.

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Mindy Bateman
Director, Crossroads Utah Area Health Education Center
## Salt Lake Community College

Mindy Bateman has been a dedicated member of the Utah AHEC Program for over 26 years and has served as the Director of the Crossroads Utah AHEC (CRAHEC) Center since 2009. In her role, Ms. Bateman has developed a unique skill set to support students pursuing degrees in healthcare fields. Under her leadership, CRAHEC collaborates directly with individuals across the health professions pipeline, from aspiring students to current professionals. Ms. Bateman is keenly aware that healthcare offers diverse career pathways that provide both financial stability and rewarding opportunities for personal growth.

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Matt Harris, MSRS, R.T. (R)(MR)(ARRT)
Program Coordinator, Radiological Technology Program
Salt Lake Community College

Matt Harris is Program Coordinator of the Radiological Technology program at Salt Lake City Community College (SLCC). Matt has taught full time at SLCC Since 2019 and also functioned as a clinical coordinator. He worked as a Radiologic Technologist clinical preceptor, and department supervisor at the University of Utah Hospital from 2012 - 2019. Matt received his associate's degree in radiography in 2012, bachelor's degree in MRI in 2013, and Master's degree in radiologic sciences in 2015. Matt has served on the Utah board of radiologic technologists as the rad tech representative. In January 2025, Matt will be starting a new role as the associate dean for the division of Health Professions at the SLCC School of Health Sciences.

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Libby Parr
Regional Imaging Educator
Intermountain Healthcare

Libby is the Imaging Educator at Intermountain Medical Center in Murray and the Regional Imaging Educator for Intermountain's central region. She has a Master's of Science in Radiologic Sciences and almost 25 years of experience as a Registered Technologist. But her greatest passion and joy comes from teaching and instructing the x-ray students at IMC as the clinical preceptor.

- Improvement of diversity and cultural sensitivity in healthcare may positively be impacted by selective admission standards extending beyond academic criteria

- Holistic admissions emerged to level the playing field for marginalized students to high-impact programs (e.g., medical, dental, pharmacy)

- Recent anti-DEI legislation in higher education inserts challenges in implementing holistic admissions

Traditional Admissions Standards

- **GPA/pre-requisite GPA rankings**
  - Who are you really admitting? (e.g., average GPA for our Dental Hygiene and Radiologic Technology AAS degree programs was ~3.9!)
  - Disenfranchise Black, Indigenous, and People of Color (BIPOC) students[1-3]
  - Disenfranchise low socioeconomic status and 1st Gen students[4]

- **Standardized testing (e.g., Test of Essential Academic Skills (TEAS))**
  - Example: COVID and "Test Optional" policies due to logistical issues of accessing testing centers resulted in the admission of more ethnically diverse applicants[4]
  - TEAS: Primrose[5] concluded the TEAS discriminated against African-Americans applicants, despite statistically correcting for first generation status, age, high school rank, and high school rigor

- Allows for considering non-academic qualities and characteristics[6]
  - Compassion and empathy
  - Ethical decision making
  - Cultural competence
  - Soft skills
- Originally conceived to improve diversity-gap: care providers that look and talk like the patients they treat[4]
- Truly a more *inclusive* admissions' model
- Allows admissions committee to screen away applicants who simply lack the "soft skills" integral for effectively delivering healthcare (*i.e., the so-called 10% of students that consume 90% of your time*)

- Multiple Mini Interviews (MMI)

- Situational Judgement Testing (SJT)

- Standardized Video Interviews (SVIs)

- **Can violate the law if implemented incorrectly**
  - On June 29, 2023, the U.S. Supreme Court ruled race-conscious admissions as unconstitutional, a reversal of a ruling from 2003.[7]
  - Model legislation originally drafted by the Claremont Institute was sent out to politicians, lobbyists, and private foundations beginning in 2021.[8]
  - State legislation was on the horizon when we wrote our S4A proposal

State Laws

As of November, 2024

86 bills targeted diversity, equity and inclusion (DEI) initiatives in higher education

14 are now law,

54 have been tabled, failed to pass, or vetod[9]

Where Anti-DEI Legislation Has Been Proposed

No bill | Introduced | Final legislative approval | Signed into law | Tabled, failed to pass, or vetoed
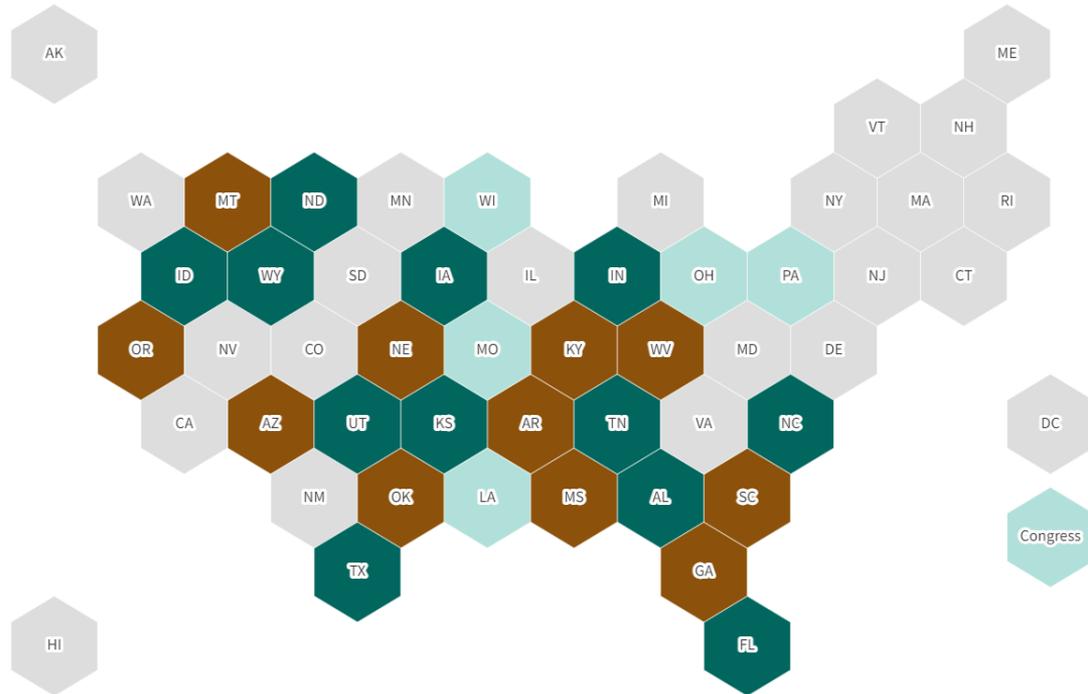
Note: Florida and North Carolina also have bills introduced, which their colors do not reflect.

- Evaluating the psychometric properties and the efficacy of holistic admission metrics for screening prospective students to competitive health science education programs at a community college
    - Do they change the demographics of people admitted: race, socioeconomic status, 1st gen?
    - Do holistic admissions jeopardize academic performance? Addressing the issue of so-called *deficit thinking.*
    - Do these processes admit students who possess better cultural competence?
    - Do these students ultimately thrive as clinicians lasting in the field?

Our Systems for Action Project

Medical System	Public Health System	Social System
• Utah Hospital Association (UHA) • Utah Health (UHealth) • Intermountain Health (IH) • HCA/MountainStar	• Crossroads Utah Area Health Education Center (AHEC) • Accrediting bodies	• College General Counsel

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- Serve on our Program Advisory Councils: curriculum, admission standards, donors
- Clinical sites/preceptors
- Interviewers

Exposure and Training for MMI and SJT Preparation

High school and early college level students will receive exposure and training through various activities and programs to face rigorous selection processes like **Multiple Mini Interviews (MMIs)** and **Situational Judgment Tests (SJTs)**, both of which assess critical skills such as communication, ethical decision-making, problem-solving, and cultural competence in healthcare settings. Our approach will be grounded in research to ensure effectiveness:

MMI Preparation Focus:

- Emphasize structured practice with feedback on common scenarios.
- Develop reflective and responsive communication skills through role-playing and peer interactions.

SJT Preparation Focus

- Use evidence-based training to simulate real-world SJT testing.
- Provide students with tools to improve judgment, prioritization, and empathy in complex scenarios.

Research Measures for Assessing Impact

•Surveys of student self-efficacy and confidence in MMI and SJT settings.

•Longitudinal tracking of application outcomes (e.g., interview invitations, acceptance rates).

Measuring the Impact: Data-Driven Results
To ensure our training program's effectiveness, we will utilize robust research measures to assess impact on student preparedness and success in MMI and SJT performance:

Simulation-Based Performance Metrics
- Measure student responses to simulated MMI and SJT scenarios using structured rubrics.
- Collect peer and instructor feedback to quantify improvement in interview technique, decision-making, and professional demeanor.

Long-Term Success Indicators
- Compare program participants' success rates in MMI and SJT-based selection processes to non-participants.
- Use longitudinal tracking to analyze progress in real-world health program acceptance rates and post-interview feedback.

By employing these evidence-based methods, we will quantify the effectiveness of our training and demonstrate tangible improvements in student readiness for competitive health science admissions processes.

- Federal and more importantly State Legislation
- Utah HB 261 Quote[10]

..."discriminatory practices" including assertions "that socio-political structures are inherently a series of power relationships and struggles among racial groups," prohibiting the notion "that an individual, by virtue of the individual's personal identity characteristics, bears responsibility for actions committed in the past by other individuals with the same personal identity characteristics."

- Have your policies/procedures/language vetted by an attorney (Our general counsel is Anatasia Morgan)

Our Flow
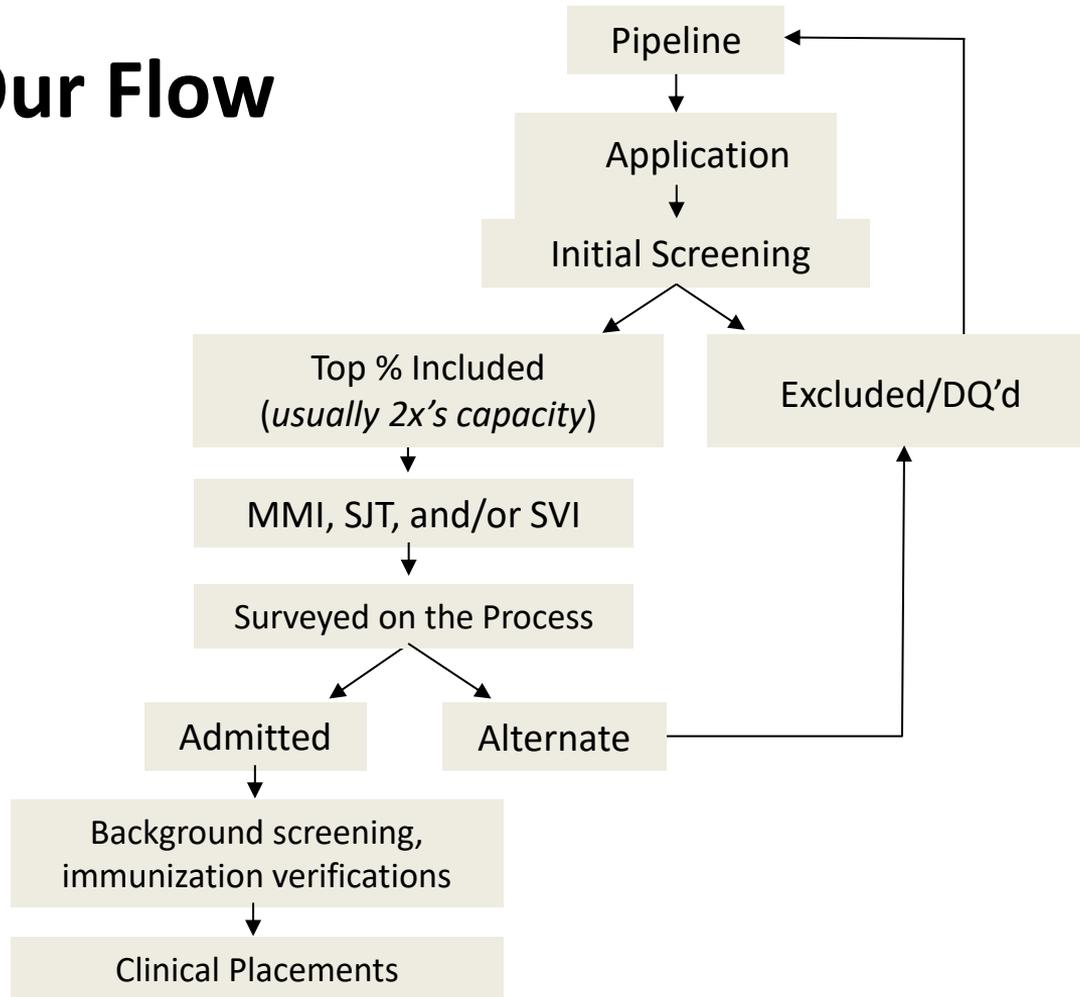
Pipeline

↓

Application

↓

Initial Screening

↓ ↘

Top % Included (*usually 2x's capacity*) → Excluded/DQ'd

↓

MMI, SJT, and/or SVI

↓

Surveyed on the Process

↓ ↘

Admitted → Alternate

↓

Background screening, immunization verifications

↓

Clinical Placements

Multiple Mini-Interview (MMI)

- MMIs originated in medical school admissions[11]
- Short interview questions/responses with multiple interviewers
- Involves soliciting interviewers not directly involved with the educational program to reduce bias
- Have external partners sign NDA to protect the questions

Procedures of our MMI Process

1 Admissions Transparency

- Update website on admission criteria
- Email blast to pipeline (e.g., MySuccess)
- Guest presentations: intro courses, HOSA, AHEC

2 Faculty Develop the Metric

- Establish domains
- Write items
- Write foils and ratings
- MMI reviewed by legal council

3 Solicit interviewers

- Primary: provider partners
- Secondary: Dean's office/staff

4 Cultural bias training

- Survey: Intercultural Development Inventory (IDI)
- Feedback/Debrief: Continuum rating, discussion

5 MMI Scheduled

6 MMI Conducted

7 "MMI Experience"

- Student experience
- Interviewer experience
- Reviewed for QC

8 MMI Evaluated by Secondary Admissions Staff

- Item analysis
- Internal consistency
- Integration/regression with other metrics

9 Informed composite admissions ranking

- The IDI is a survey and method of guiding discussion on cultural sensitivity
- Originally conceived to evaluate Fortune 500 executives representing US companies internationally
- Adopted by our Admissions Personnel to:
    - Facilitate intercultural assessment, and
    - Debrief prospective interviewers in effort to reduce cultural bias

Intercultural Development Continuum (IDC™)
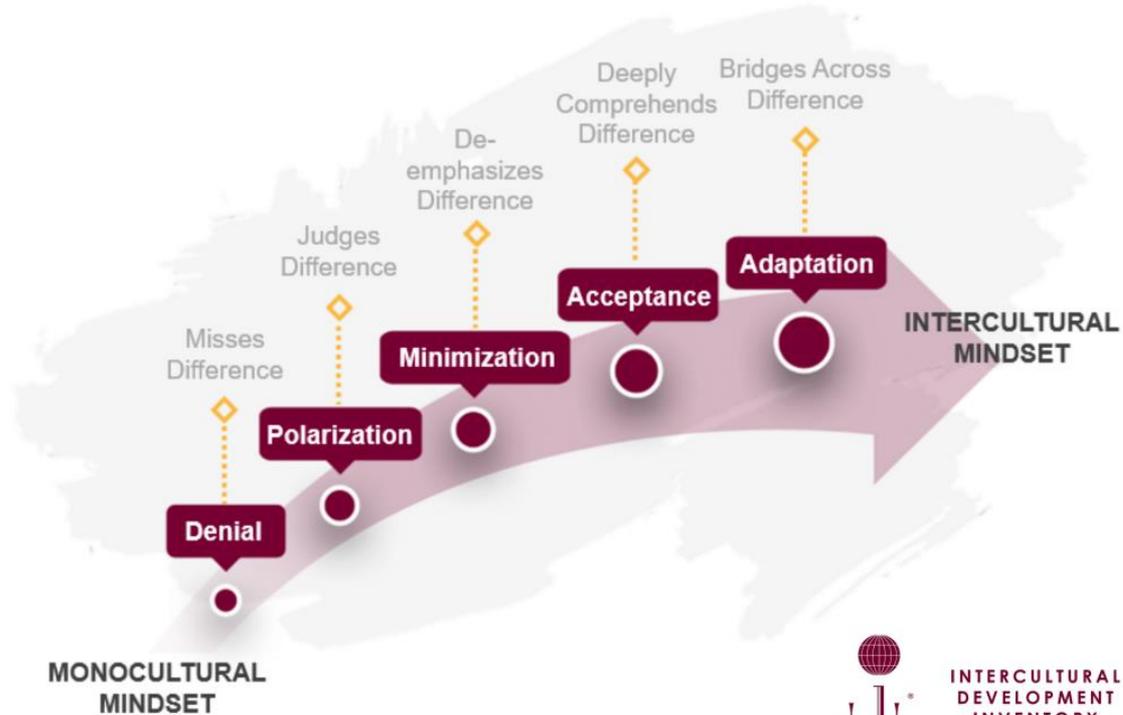
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- SJT intended to tap similar constructs to the MMI
- More feasible for larger academic programs that have rolling admissions
  - SLCC Nursing Program: admits 120 AAS students every Fall, Spring, and Summer terms
  - Insufficient staffing, time, resources to conduct MMIs with such frequently for so many students
- Online/remote security:
  - Ensure it's the actual candidate and not a surrogate
  - Video eyes on the candidate during the test
  - Control to the screen – no access to other browsers
  - Protect against sharing of questions: no photos, downloads, or screen shots

- History: Fifty years old, used by military and business
- Validity: Internal, based on adherence to domains selected from job descriptions
- Current uses: Administrative, customer service, medical admissions
- Our proposal:
  - Very low-fidelity scenarios with multiple choices – 30 scenarios
  - All completed applicants; comparison group of nurses

SJT Domains

- Business examples: Adaptability, leadership

- Medicine examples: Empathy, integrity, resiliency

- Our proposal: QSEN competencies

  - o Patient-Centered Care
  - o Teamwork and Collaboration
  - o Evidence-Based Practice
  - o Quality Improvement
  - o Safety
  - o Informatics

Constructing an SJT Foil

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Very Ineffective (1)	Ineffective (2)	Effective (3)	Very Effective (4)
The response will cause additional problems or make the situation worse.	The response will not improve the situation or may cause a problem.	The response could help but will not significantly improve the situation.	The response will significantly improve the situation.

While viewing a classmate's social media profile, you notice that your classmate has made negative comments about treating a recent patient. Your classmate describes the patient and the patient's condition in detail, which violates patient privacy regulations. (C7)

Responses

A. Explain to your classmate the importance of patient privacy and ask them to remove the comments.
B. Report your classmate's behavior as a privacy violation.
C. Read through your classmate's previous comments to see how often they comment about patients.
D. Let other students know your classmate should not be trusted with private information.
E. Suggest your classmate remove the comments as soon as possible.

Key C7 Responses (A-4, B-3, C-2, D-1, C-3)

Example SJT Item (Leadership Domain)

You and a classmate stay late after class one day to ask a teaching assistant some questions about an assignment they graded. While the three of you are talking, the teaching assistant teases your classmate about their ethnic background, saying your classmate is the smart kid with overbearing and pushy parents. You see from your classmate's face that they are offended, and they walk out of the room. (A14)

Responses

A. Ask the teaching assistant to stop making these comments.
B. Report the interaction to a school administrator
C. Laugh at the teaching assistant's joke to be polite.
D. Ask the teaching assistant a question related to the course material to take the attention off of their comment.
E. Explain to the teaching assistant that it is not okay to make comments about your classmate's ethnicity.

Key A14 Responses (A-3, B-4, C-1, D-2, E-4)

Procedures of SJT

1 Admissions Transparency

- Update website on admission criteria
- Email blast to pipeline (e.g., MySuccess)
- Guest presentations: intro courses, HOSA, AHEC

2 Faculty Develop the Metric

- Establish domains
- Write items
- Write foils and ratings
- SJT reviewed by legal council

3 Coordinate with testing center and secure software company for remote testing

4 SJT Window for Testing Scheduled

5 SJT Conducted-Student Experience surveyed after

6 SJT Evaluation by Secondary Admissions Staff

- Item analysis
- Internal consistency
- Integration/regression with other metrics

7 Informed composite admissions ranking

Standardized Video Interview (SVI)

- SVI replaces self-report/autobiographic narratives susceptible to:
  - Plagiarism/AI (e.g., ChatGPT)
  - Poor discriminant validity
- Can pass along platform support outside of institution for creation, training/support, and external scoring. Policies in-place for ADA compliance, security, FERPA protection, etc.
- Need to budget time for…
  - Building the custom/standardized dashboard
  - Coordination with your internal instructional technology personnel/management
  - Financial processes: contracts/procurement, setting up index/account for transactions and payment of vendor

Statistical Analyses (prior year example)

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	decision	N	Mean	SD	t	p-value	ES (d)
MMI	In	43	23.1	1.5	8.10	<0.001*	1.80
	Alternate	36	20.0	2.0			
Essay	In	43	11.3	0.7	1.68	0.05*	0.34
	Alternate	36	11.0	1.1			
Other	In	43	4.3	2.0	1.42	0.08	0.23
	Alternate	36	3.6	2.5			
GPA	In	43	3.8	0.2	3.99	<0.001*	0.81
	Alternate	36	3.6	0.3			
total	In	43	12.1	0.5	8.89	<0.001*	2.01
	Alternate	36	10.8	0.8			

Statistical Analyses (prior year example)

Student Testimonials
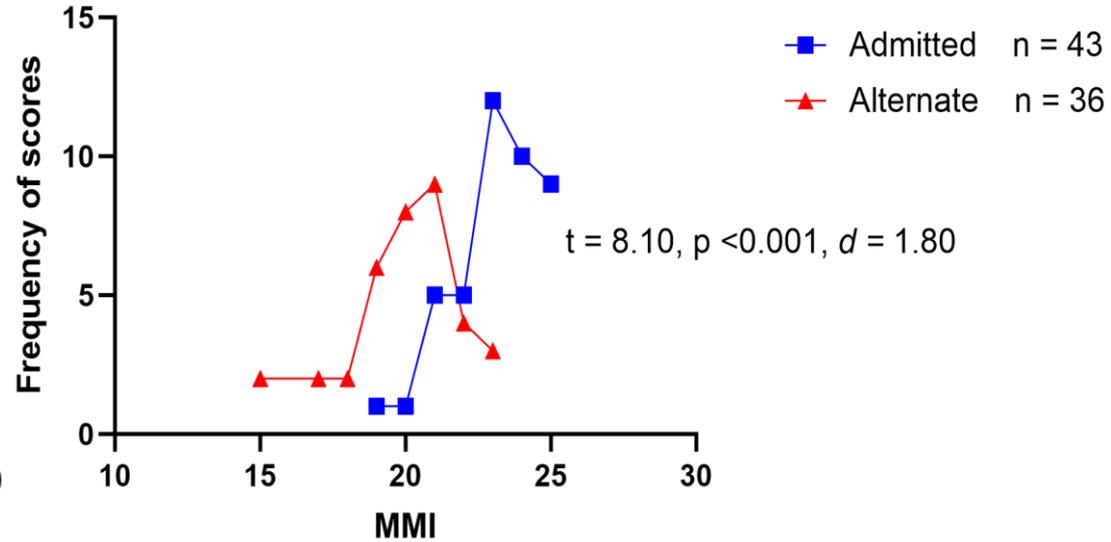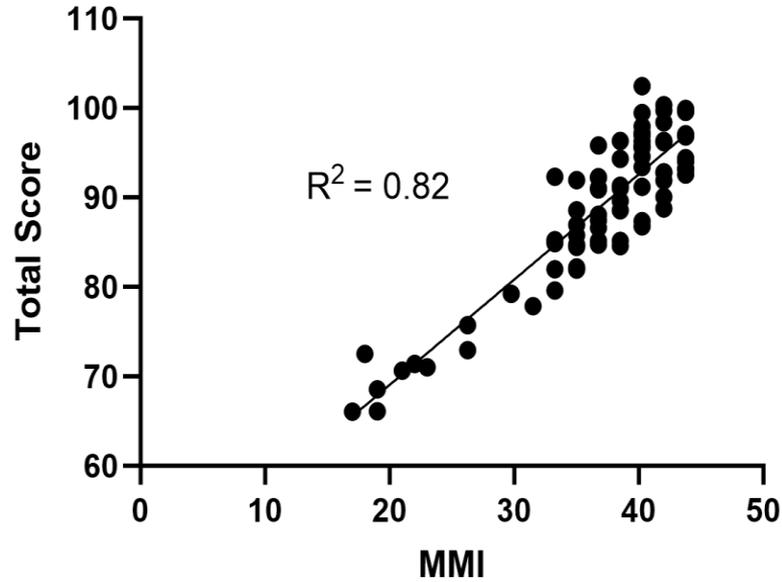
- "I feel like I am being heard."
- "If it were up to my GPA only, I would never get admitted."
- "I applied twice before and finally got in. Thank you!"
- "Honestly, I thought the process was great! That was my first time doing an interview in that manner and it was so much more relaxed feeling than your typical interview."
- "I felt very comfortable and more confident during this interview instead of a traditional interview!"
- "I'm grateful for the opportunity you've given me. Passing on to the interview phase was nerve-wracking, but I found the MMI format to be well-structured. It allowed me to showcase my true self comfortably, and I appreciate how organized and straightforward the entire process was."
- "I loved it! It was interesting to respond to these situations, and I loved this interview process."

Summary

- Holistic admissions allow for considering non-academic attributes and characteristics. From a legal viewpoint holistic admissions are best described inclusive

- Essays, SVIs, SJTs, and MMI's have emerged as popular holistic admission techniques

- Safeguard your metrics

- Describe holistic admissions to prospective students

1. Formerly, students were admitted to SLCC's Rad Tech program based on grade point average and scoring on an application essay. Do you think holistic admissions is a game-changer?
2. Can you summarize your experience in participating in the multiple mini-interviews for the Rad Tech program?
3. Do you think your involvement in the multiple mini-interviews adds value to screening the types of candidates admitted to the Rad Tech program?
4. Being a preceptor for SLCC's Rad Tech students at Intermountain Health, have you noticed any differences in the performance of our students in the clinical setting since we have initiated holistic admissions?

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School of Health Sciences
SALT LAKE COMMUNITY COLLEGE

Robert Pettitt

rpettitt@slcc.edu

Questions?
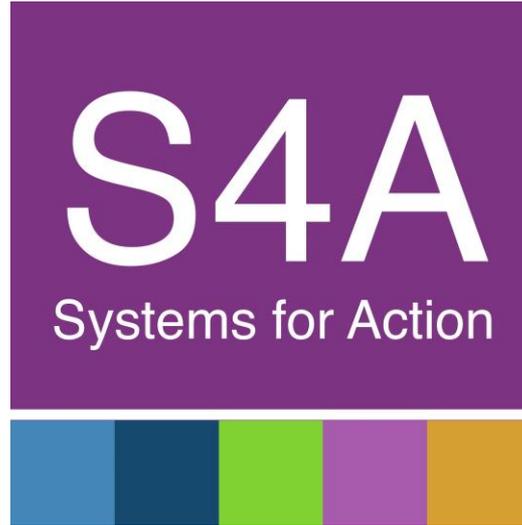
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Upcoming Webinars

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**Systems Alignment to Optimize Health Services
for Youth Experiencing Homelessness**

Wednesday, Nov 20th

10:00am MT | 12pm ET

Register [here](#).

Register at:
https://systemsforaction.org/research-progress-webinars

Acknowledgements

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