A METHOD TO IMPROVE FAIRNESS OF CLERKSHIP SMALL GROUP EVALUATIONS WITH APPARENT SYSTEMATIC RATER ERRORS

SESSION 1- POSTER 1 *ID: 1155643*

Proposal Category: Innovation Abstract

Abstract Topic: Assessment

Submitter: Stephen Schneid

Author(s): Stephen Schneid, MHPE, Allison Lynch, MD, Felipe Eddie Zatarain, Bernice Ruo, MD

Topic: Assessment

Intended audience: Undergraduate Medical Education (clerkship)

Objective or purpose of innovation

Small group facilitators are often provided instructions on how to complete student evaluations objectively including providing anchors and recommending distribution of grades. However, each facilitator has different levels of training and teaching experience resulting in differing levels of grading stringency. This source of systematic rater error can lead to biased grades if unadjusted numbers are utilized. To mitigate this issue, we employed a method of adjusting scores to minimize construct irrelevant variance and to improve fairness.

Background and/or theoretical framework and importance to the field

We approached this innovation from a construct validity framework described in the Standards of Educational and Psychological Measurement.

Design: Instructional methods and materials used

We collected and analyzed data from 204 end-of-year primary care continuity clerkship evaluations for 132 third year medical students that were completed by 36 small group facilitators. The evaluation form asked facilitators to evaluate students in 10 domains on a scale with 8 anchors. Since students are randomly assigned to small groups, we believe that each small group's average should be similar. To adjust the scores by small group, we calculated the collective group's mean and SD. Then, we re-calculated and re-distributed each small group's scores around the collective group mean and SD.

Outcomes

Integrating adjusted small group scores into final grades led to changes in 25% of grades compared to using raw numbers given by facilitators. Fifteen grades went up: 7 from pass to near honors, 5 from near honors to honors, and 3 from pass to honors. Eighteen grades went down: 7 from honors to near honors, 10 from near honors to pass, and 1 from honors to pass.

Innovation's strengths and limitations

The strength of our innovation is its applicability to any assessment of groups of students by various facilitators. A limitation is that it has only been tried on a small scale.

Feasibility and generalizability

The methodology is feasible and can be easily computed for any stage of training.

References

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A NEW TEACHING ELECTIVE FOR MEDICAL STUDENTS AT KIRK KERKORIAN SCHOOL OF MEDICINE

SESSION 1- POSTER 2 *ABSTRACT ID: 1154176*

Proposal Category: Innovation Abstract

Abstract Topic: Basic Science: Teaching and Learning Pedagogies and Curricula

Submitter: Rosalie Kalili

Author(s): Rosalie S. Kalili, MD

Topic: Basic Science: Teaching and Learning Pedagogies and Curricula

Intended audience: Undergraduate Medical Education (pre-clerkship)

Objective or purpose of innovation

Develop a curriculum that teaches foundational teaching skills that can be used in UME and beyond.

Background and/or theoretical framework and importance to the field

While opportunities exist at our program for medical students to participate in peer-peer/near-peer teaching, no formal teaching curriculum exists. The recognition of this need, combined with the constraints of the pandemic necessitating nonclinical and remote elective options, propelled the creation of a Problem-based Learning (PBL) teaching elective.

Design: Instructional methods and materials used

Mirrored after PBL faculty development & training sessions, we developed a classroom-based PBL teaching elective for 4th year medical students. The major curricular components consists of didactic sessions based on selected readings that support anticipated skills performance, direct teaching opportunities both on-campus and remotely, weekly reflection assignments, and completion of either a quality improvement or case writing project. Elective students also received feedback on their performance as a junior faculty guide during PBL tutorial sessions from their student group.

Outcomes

The elective received a score of 5 (using a 5-point Likert scale) for all measure items in the Evaluation of Nonclinical Elective by Student form, completed by all participating students. Written comments included: allowed me to explore my interest in teaching; this course did an incredible job of introducing me to the fundamentals of academic medicine; I feel much more prepared to be a resident, who is expected to be in a teaching role for medical students, peers, and patients; great variety of experiences and assignments even for a short rotation.

Innovation's strengths and limitations

While the elective was well received by the participating medical students, opportunities for improvement are underway to include the impact on the learning of the student groups facilitated by the elective students.

Feasibility and generalizability

Formal teacher training programs starting in UME can help medical students develop their teaching skill set early. The elective was developed at an opportune time and allowed students to experience teaching environments on-campus and remotely.

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A NOVEL INTERPROFESSIONAL ANTIMICROBIAL STEWARDSHIP CURRICULUM FOR PHARMACY AND MEDICAL STUDENTS

SESSION 1- POSTER 3 *ABSTRACT ID: 1156937*

Proposal Category: Innovation Abstract

Abstract Topic: Clinical Skills: Teaching and Learning Pedagogies and Curricula

Submitter: Rand Dadasovich

Author(s): Rand Dadasovich, MD, MS, Conan MacDougall, PharmD, MAS, David Sears, MD,

Topic: Clinical Skills: Teaching and Learning Pedagogies and Curricula

Intended audience: Undergraduate Medical Education (clerkship)

Objective or purpose of innovation

The goal of this curricular innovation is for pharmacy and medical students to develop an evidence-based approach to using antimicrobials that draws upon the expertise of different health professionals.

Background and/or theoretical framework and importance to the field

The CDC recommends that health facilities develop an interprofessional (IP) antimicrobial stewardship program (ASP) that includes physician and pharmacist co-leaders. Research has shown that medical and pharmacy students want more exposure to stewardship and that early exposure to IP ASPs improves knowledge and stimulates a desire to collaborate. Introducing learners to stewardship in an IP environment provides a more authentic simulation of practice.

Design: Instructional methods and materials used

Two undergraduate electives were modified to create a two-week IP ASP elective for students from the UCSF Schools of Pharmacy and Medicine. Learners worked in IP pairs in ID pharmacy rounds, ASP rounds, a summative case presentation, and in the microbiology lab. Learner reaction was assessed through anonymous qualitative evaluations. Knowledge and impact were assessed through pre-and post-course MCQs delivered through Qualtrics.

Outcomes

Knowledge scores improved by 7.4% among 13 learners who completed the course. Knowledge among medical students improved 17.6% while pharmacy student knowledge did not change. On a 5-point Likert scale measuring comfort, attitudes, and confidence around IP collaboration, average scores improved from 3.4 to 4.1 (+0.7) among all learners but the change was higher among medical students (+1.0) compared to pharmacy students (+0.4).

Innovation's strengths and limitations

Our curriculum provides an IP experience for students to gain exposure to ASP in the clinical environment while leveraging the expertise of two fields of practice. Learners in our study gained knowledge of stewardship principles and confidence in their application, though the effect was larger among medical students.

Feasibility and generalizability

This type of curriculum may only be feasible for institutions with both schools of pharmacy and schools of medicine, though institutional collaborations and leveraging of virtual learning platforms may create opportunities for further educational innovations.

References

1. Abbo, L, et al. "Medical students' perceptions and knowledge about antimicrobial stewardship: how are we educating our future prescribers?." Clinical infectious diseases 57.5 (2013): 631-638.

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A PREFERENCE FOR PEER-ASSISTED LEARNING OVER FACULTY IN THE PANDEMIC ERA: DEVELOPMENT AND EVALUATION OF A MEDICAL STUDENT-LED VIRTUAL PHYSIOLOGY EXAM REVIEW

SESSION 1- POSTER 4 *ABSTRACT ID: 1155615*

Proposal Category: Research Abstract

Abstract Topic: Basic Science: Teaching and Learning Pedagogies and Curricula

Submitter: Joseph Breuer

Author(s): Joseph A. Breuer, B.S., M.S., Arina Alexeeva, B.S., M.S., Abigail R. Archibald, B.A., Milton Greenberg, PhD

Topic: Basic Science: Teaching and Learning Pedagogies and Curricula

Intended Audience: Undergraduate Medical Education (pre-clerkship)

Research Statement/Research Question

We evaluated whether first-year medical students (MS1s) enrolled in the first-year medical physiology course at the University of California, Irvine, School of Medicine (UCISOM) preferred peer-led review sessions facilitated by second-year medical students (MS2s) or faculty-led review sessions in a virtual format.

Background and relevance of the study

Peer-assisted learning (PAL) has broad benefits in undergraduate medical curricula. Three years ago, the first-year medical physiology course at the UCISOM implemented peer-led review sessions led by MS2s. These review sessions occurred prior to physiology block exams in parallel with traditional faculty-led review sessions. In a previous study, we demonstrated that students preferred peer-led review sessions over their faculty-led counterparts. The COVID-19 pandemic mandated a transition to virtual teaching modalities, and UCISOM MS2s were challenged with transitioning their in-person, peer-led review sessions to a virtual platform.

Design and methods

Peer-led sessions were taught by six MS2 tutors who reviewed faculty-approved exam-relevant physiology topics via a rotating Zoom™ breakout room format. Faculty-led review sessions consisted of content review and practice questions in a lecture-style Zoom™ format. We surveyed MS1s who attended both peer-led and faculty-led virtual review sessions and assessed student perceptions of the quality of each session.

Results

The MS1s exhibited a strong preference for virtual peer-led exam review sessions over the virtual faculty-led sessions. The majority of MS1s reported that the peer-led sessions better helped them identify strengths and weaknesses, apply physiology concepts, reduce exam anxiety, and improve exam scores. MS1s perceived the peer-presented content as more representative of exam questions than faculty-presented content.

Conclusions

Our findings suggest that peer-led review sessions remain an acceptable alternative to faculty-led review sessions in the era of virtual learning, with students preferring peer-

led review in various categories. This is consistent with the theory of cognitive congruence, which speculates that narrowing the knowledge gap between student and educator enhances learning.

References

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ADDING "DIVERSE" CASES IN CURRICULUM IS NOT A ENOUGH: APPLICATION OF HARRO'S CYCLES OF SOCIALIZATION AND LIBERATION TO DETERMINE HOW TO PREPARE STUDENT TO CARE FOR DIVERSE PATIENT POPULATIONS

SESSION 1- POSTER 5- *ABSTRACT ID: 1155199*

Proposal Category: Research Abstract
Abstract Topic: Diversity, Equity, Inclusion and Anti-Racism in the Learning Environment
Submitter: Julie Thomas
Author(s): Julie Thomas, MD, Jorie Colbert-Getz, PhD, Rachel Bonnett, BA, Mariah Sakaeda, BA, Jessica Hurtado, MPA, Candace J. Chow, PhD
Topic: Diversity, Equity, Inclusion and Anti-Racism in the Learning Environment
Intended Audience: Undergraduate Medical Education (pre-clerkship); Undergraduate Medical Education (clerkship)

Research Statement/Research Question

To explore how medical students interpret the term "different patient backgrounds" from the AAMC Graduation Questionnaire and apply a conceptual framework to determine how best to prepare medical students to care for diverse populations.

Background and relevance of the study

Physicians are not meeting the needs of the diversifying patient population. Medical educators typically focus on curricular changes to address unmet social determinants of health, but this is insufficient (1,2). Because the lack of exposure and learning about diverse populations are systemic issues, the remedy must use a systemic approach.

Design and methods

We conducted an exploratory qualitative study using focus groups with nine University of Utah School of Medicine 2nd and 4th year medical students. Focus groups were transcribed and coded using thematic analysis (3).

Results

We used Harro's cycles of socialization and liberation to organize the codes into themes (4,5). The cycle of socialization revealed that there is a lack of consistent messaging about the importance of equity, from the mission statement to the interview process to curricular expectations. In particular, students stated that the curriculum lacked an "arc of development" that focuses on equipping graduates to care for diverse populations.

Applying Harro's cycle of liberation to the findings reveals that students want our institution to set clear expectations about the importance of equity from an applicant's first encounter with the school. Students also want instruction on how to thoughtfully engage in discussions about social determinants of health. Students also want the importance of equity to be emphasized in all of their interactions with faculty, staff, patients, and peers.

Conclusions

Our findings show that failure to thoroughly prepare students to work with diverse patient populations has many causes. Preparing students requires changes by various stakeholders, including marketing, admissions, curriculum, and student affairs.

References

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CLINICAL ASSESSMENT SPECIALISTS (CASPS): IMPROVING STUDENT ASSESSMENT VALIDITY AND COMPARABILITY IN THE CORE CLERKSHIPS

SESSION 1- POSTER 6 *ABSTRACT ID: 1156369*

Proposal Category: Innovation Abstract

Abstract Topic: Assessment

Submitter: Lindsay Mazotti

Author(s): Lindsay A. Mazotti, MD, Ronald Navarro, MD, Delores A. Amorelli, EdD, Derek Halet, BA, Abbas A. Hyderi, MD, MPH, Michael Kanter, MD, Carla S. Lupi, MD

Topic: Assessment

Intended audience: Undergraduate Medical Education (clerkship)

Objective or purpose of innovation

We aimed to improve assessment in clerkships by creating a new faculty role dedicated to workplace-based assessment.

Background and/or theoretical framework and importance to the field

The development of valid systems of assessment to support competency-based medical education continues to face substantial barriers, including the limited time for frontline educators to perform direct observation and assessment.

Design: Instructional methods and materials used

In 2020, Kaiser Permanente Bernard J. Tyson School of Medicine launched a longitudinal integrated clerkship (LIC) beginning with a half day per week in Year 1 in Primary Care. In the Year 2 LIC, five core disciplines are added. Students are paired with one preceptor per discipline. Six faculty from various specialites were trained as Clinical Assessment Specialists (CASPs) to provide feedback and assess students in preceptors' offices.. Each student had at least one patient encounter observed by a CASP at least twice in the second semester of Year 1. Rating forms use milestone language aligned to institutional educational program outcomes, from level "entry" (1) to "advanced developing" (4). CASPs and clerkship leadership huddle weekly to align assessment practices and address implementation issues.

Outcomes

Milestone ratings were appropriate to developmental expectations. Patient Care mean (n=24) was 2.355 (range 1 to 4), Information Gathering mean (n=70) was 2.38 (range 1 to 4), Diagnosis and Plan mean (n=20) was 2.2 (range 1 to 4). Ratings demonstrated no significant differences across sites. Weekly huddles have led to refinement of preceptor-CASP role clarity, identification of opportunities for collaboration with preceptors, and observations about implementation of the didactic curriculum in clinical learning.

Innovation's strengths and limitations

CASPs can support competency-based assessment in the workplace. Communication regarding the role of the CASP to students and preceptors has been important. Funding for such a role may be a limitation.

Feasibility and generalizability

This program has been expanded to 12 faculty members in two years of LIC across six sites. Other all-LIC schools are adapting the model for use.

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COLLEGE COMPETITIVENESS AND MEDICAL SCHOOL BENCHMARK PERFORMANCE

SESSION 1- POSTER 7 *ABSTRACT ID: 1151902*

Proposal Category: Research Abstract

Abstract Topic: Diversity, Equity, Inclusion and Anti-Racism in the Learning Environment

Submitter: Josh Levy

Author(s): Josh Levy, Hiba Kausar, Edward G. Simanton, PhD, Shaun Andersen, Deepal Patel

Topic: Diversity, Equity, Inclusion and Anti-Racism in the Learning Environment

Intended Audience

- Undergraduate Medical Education (pre-clerkship)
- Undergraduate Medical Education (clerkship)
- Graduate Medical Education

Research Statement/Research Question

Our study aims to determine if students who attend competitive undergraduate colleges outperform their counterparts on medical school benchmarks after the MCAT.

Background and relevance of the study

Medical students are tested through USMLE Step 1 and 2 examinations before obtaining a medical license. Traditional predictors of medical school performance include MCAT scores, undergraduate grades, and undergraduate institution selectivity. Prior studies indicate that admissions committees may unfairly discriminate against applicants graduating from less competitive universities with average SAT scores. However, there is limited literature to determine whether those who attended competitive colleges perform better on Step 1 and 2 examinations.

Design and methods

Data was de-identified and in compliance with existing IRB protocols. We defined competitive colleges as those having greater than 10% of their student body scoring 1400 or higher (on a 1600 scale) on the SAT. If this criteria was not met, colleges would be categorized as less competitive. Of the two groups, descriptive statistics and unpaired t-tests were calculated to analyze average test scores on the MCAT, Phase 1 NBME, Step 1, Phase 2 NBME, and Step 2.

Results

Our findings suggest there are no statistically significant differences between students who do or do not attend competitive undergraduate colleges on medical school benchmark examinations following the MCAT. Students who do not attend competitive undergraduate colleges appear to outperform their counterparts in Step 2 examination scores.

Conclusions

Our research indicates that institutional selectivity accurately predicts MCAT scores, but not standardized medical school examination performance. Medical school admissions committees could use this data to aid in their selection process to mitigate factors that may cause unfair discrimination towards students who attend less

competitive colleges. Our findings were based on data collected from single institutions. Multi-institutional analyses should be conducted in the future to assess whether these findings are institution-specific or representative of all medical schools.

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CONSTRUCTED RESPONSE SHORT ANSWER QUESTIONS ON MEDICAL STUDENT EXAMS: ARE THEY FEASIBLE AND RELIABLE?

SESSION 1- POSTER 8 *ABSTRACT ID: 1153775*

Proposal Category: Research Abstract

Abstract Topic: Assessment

Submitter: Marieke Kruidering

Author(s) Marieke Kruidering, PhD, Tracy B. Fulton, PhD

Topic: Assessment

Intended Audience

- Undergraduate Medical Education (pre-clerkship)

Research Statement/Research Question

The objective of this study was to examine the feasibility of utilizing constructed response short-answer questions (CR-SAQs) from the perspectives of faculty and students across three institutions and to establish the inter-rater reliability of scoring CR-SAQs.

Background and relevance of the study

CR-SAQs on summative exams carry benefits for medical students and educators1,2. However, the perceived burden associated with CR-SAQs may impede their use in medical education3.

Design and methods

Question writers (N=5) from three US medical schools met virtually to create a set of CR-SAQs to be used at each school on a summative exam in the first year of medical school. After the exams were administered, the study questions were scored by faculty content experts (N=7), faculty non-content experts (N=6), and fourth-year medical students (N=7). Cohen's weighted kappa (□w) was used to evaluate inter-rater reliability between the content expert and other scorers. Structured interviews were performed with question writers and an open-ended question survey was administered to scorers. Content analysis was performed on the qualitative data.

Results

Inter-rater reliability between the content expert and student scorers was fair/moderate (□w=0.34-0.53 holistic rubrics) or substantial (□w=0.67-0.76 analytic rubric), but lower between content and non-content experts (□w=0.18-0.29 holistic rubrics; □w=0.59-0.66 analytic rubric). All question writers participated in the interviews and twelve faculty and student scorers (N=12/20, 60%) completed the survey. Working with a team, getting feedback from others, and carefully wording the question were recommended for writing CR-SAQs. For scoring CR-SAQs, reading a sample of responses first, adjusting the rubric, creating notes, and setting aside sufficient time were recommended.

Conclusions

CR-SAQs can be reliably scored using an analytic rubric by faculty or senior medical students who do not have content expertise, which may relieve the faculty burden

associated with grading CR-SAQs. Our findings also show that it is feasible to include CR-SAQs in summative exams.

References

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DE-ESCALATION THROUGH AN ANTI-RACIST LENS: A NOVEL SIMULATION CURRICULUM

SESSION 1- POSTER 9 *ABSTRACT ID: 1152513*

Proposal Category: Innovation Abstract

Abstract Topic: Diversity, Equity, Inclusion and Anti-Racism in the Learning Environment

Submitter: Mindy Ju

Author(s): Mindy Ju, MD, MAEd, Sneha Daya, MD, April Edwell, MD, Dawn Pizzini, RN

Intended audience: Continuing Medical Education

Objective or purpose of innovation

To implement a simulation-based healthcare behavioral de-escalation session through an anti-racist lens

Background and/or theoretical framework and importance to the field

Racism influences healthcare teams' decisions, including response to patients and families in distress leading to increased use of security on people of color (1). Communicating with patients and families in crisis with an anti-racist lens is challenging. Practice with simulated patients (SPs) and guided facilitation could lead to improved communication with and decreased in the use of security against patients of color, while simultaneously fostering anti-racist discussion in the healthcare setting.

Design: Instructional methods and materials used

Using Kern's model for Curriculum Development (2), we designed a 2-hr simulation-based session where healthcare team members engaged with SPs as patients during an emotional crisis. We incorporated simulation, communication (Trauma-Informed Care and Crisis Prevention Intervention) and anti-racist best practices into the development of the sessions. We derived learning objectives based on the needs identified by de-escalation team developers. The session included a pre-brief and two separate scenarios with facilitated debriefs. Facilitators were nurses and physicians with experience in simulation and EDI-J (Equity, Diversity, Inclusion and Justice) facilitation. We recruited participants from the members of our hospital's de-escalation team.

Outcomes

We completed two sessions with a total of 8 active participants. 100% of participants would recommend these sessions to a colleague; would like to attend another session; felt the scenarios were realistic and relevant to their work. The most common request was to increase the time for the sessions.

Innovation's strengths and limitations

While many de-escalation programs have been described, our program is unique in its explicit use of an anti-racist lens. Limitations include the small number of sessions to date due to limited time and resources.

Feasibility and generalizability

The implementation of our program was supported by our institution as part of a larger effort to decrease systemic racism in our hospital, which may not be applicable at every institution.

References

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DETERMINATION OF VARYING BIAS IN MEDICAL STUDENT EVALUATIONS WITH THE USE OF NATURAL LANGUAGE PROCESSING

SESSION 1- POSTER 10 *ABSTRACT ID: 1157229*

Proposal Category: Research Abstract

Abstract Topic: Diversity, Equity, Inclusion and Anti-Racism in the Learning Environment

Abstract Status: Complete / Locked

Submitter: Sonali Bhanvadia

Author(s) Sonali Bhanvadia, Sally Baxter, Lina Lander, Bharanidharan Radha Saseendrakumar, Joy Guo, Michelle Daniel

Intended Audience

- Undergraduate Medical Education (pre-clerkship)
- Undergraduate Medical Education (clerkship)
- Graduate Medical Education
- Continuing Medical Education

Research Statement/Research Question

We sought to determine if there is underlying bias in medical student evaluations by looking at various demographics, including that of gender, race, grades received, word choice, and more. It was determined that demographics of both students and evaluators would provide a more in-depth review. We hypothesized that students would receive better evaluations and grades if there was gender/racial concordance.

Background and relevance of the study

Under-represented minorities and females have not always been fairly represented in medical education. After the start of the Black Lives Matter movement, there has been an increased push for equality, including in medical education. We wanted to see if evaluations for MS3/MS4 changed before and after this movement. By identifying bias, resolutions can be found to provide an equal opportunity for students to excel.

Design and methods

This study utilized a collection of medical student evaluations in which demographics for students and evaluators were accessible for 2019-2020 and 2020-2021 at a single institution. We modeled the summary of demographics, grade distributions, and a sentiment score distribution. Natural language processing was was used to evaluate word choice.

Results

There was no significant bias found in the evaluations. Females and males and all racial groups had similar means for all of the analyses. Word clouds showed no significant difference even in concordance. It is important to mention that there were significantly more honors/near honors grades during 2020-2021 than in 2019-2020. This could be due to impact of the Black Lives Matter movement, changes due to the COVID-19, or some other factor.

Conclusions

We were unable to determine if there is a presence of bias in medical student evaluations at this institution based off of analysis of demographics and using NLP for word choice analysis. It may be helpful to cross-analyze this data with another institution that may vary in type (public vs. private), student body, or location.

References

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EARLY CAREER COACHING FOR ACADEMIC FACULTY IMPROVES FACULTY CONFIDENCE IN NAVIGATING THEIR CAREER

SESSION 1- POSTER 11- *ABSTRACT ID: 1154803*

Proposal Category: Innovation Abstract

Abstract Topic: Faculty Development

Submitter: Megan Fix

Author(s): Katherine Anderson, MD, Megan L. Fix, MD, Harriet Hopf, MD, Heather Walker, PhD, Tiffany Glasgow, MD

Intended audience: Continuing Medical Education

Objective or purpose of innovation

We sought to develop, implement and evaluate an Early Career Faculty Coaching (ECC) Program.

Background and/or theoretical framework and importance to the field

High clinical load, productivity expectations, and experience of bias can make academic medicine challenging to navigate. Although coaching, mentoring, and peer support have all been described to improve wellness and success (1), coaching has been less explored (2,3), with more focus on medical students (4) than on faculty. Some have used professional coaches (1) but this is costly. We developed the Early Career Coaching Program (ECC) with internal, non-certified coaches.

Design: Instructional methods and materials used

ECC coaches were recruited from volunteer faculty recognized as outstanding mentors, and coachees were invited to apply. The program includes group monthly skill building workshops, structured workbooks, six one-on-one coaching sessions, and peer networking sessions for coachees. Three cohorts were surveyed between 2019 and 2021 using SenseMaker technology. Pre- and post-test tools were iterated several times to ensure each item provided reliable and useful feedback. Plenary graphs were used to conduct comparative analyses from pre- to post-test, and between cohorts to gauge growth.

Outcomes

All sixteen coaches and 39 coachees participated in the survey. Feedback on individual coaches was almost universally positive. Preliminary results indicate coachees experienced increased: clarity and confidence in ability to navigate their career, efficacy in making career changes, and understanding of the value of seeking guidance. Data suggests coachees are increasing confidence without creating a co-dependent relationship with their coach. Coaches demonstrated improved listening skills with increasing experience.

Innovation's strengths and limitations

Strengths include an easy to implement, low cost, local program that can be disseminated to many academic centers. Limitations are single center design and use of Sensemaker technology which is a novel data gathering tool.

Feasibility and generalizability

An early career faculty coaching program using committed internal coaches is an easy to implement and cost-effective method for increasing faculty clarity and confidence in navigating the academic system.

References

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EMBODIED LEARNING IN MEDICAL EDUCATION

SESSION 1- POSTER 12 *ABSTRACT ID: 1156958*

Proposal Category: Innovation Abstract

Abstract Topic: Clinical Skills: Teaching and Learning Pedagogies and Curricula

Abstract Status: Complete / Locked

Submitter: Sharada Narayan

Author(s): Nicole Carvajal, MS, Cindy Carvajal, BS, Sharada Narayan, MS, Carina de la Cueva, MS, Manuel Tapia, MD, MPH

Intended audience: Undergraduate Medical Education (pre-clerkship)

Objective or purpose of innovation

Curriculum created to empower diverse medical students by actively teaching coping skills, emotion regulation, and self-compassion to minimize harm and support their wellbeing during their training and beyond.

Background and/or theoretical framework and importance to the field

Medical education is becoming increasingly aware of the importance of empathy and student well-being to training effective clinicians. However, existing curricula focus only on clinical empathy for patient care or are marginalized as elective courses (Patel et al. 2019, Bond et al, 2013, Zhou et al, 2021). The E(m)Body curriculum is the first that adopts a transdisciplinary approach, drawing from Mindfulness Based Stress Reduction, DBT theory, and Self-Compassion, to teach students these foundational emotional skills and offer them the opportunity to practice and reflect in a supportive environment.

Design: Instructional methods and materials used

A cohort of pre-clinical medical students will be invited to participate in a 1.5 month case-based learning curriculum to develop emotional skills that cultivate resilience, meaning and purpose in medicine. Recruited students met the following criteria: 1. Access to mental health services on their campus and 2. Enrolled in a U.S. medical school. Centering underrepresented students was emphasized. Multiple surveys measuring skills and behaviors at baseline and post-intervention will be used. Control participants will complete the initial surveys.

Outcomes

Measuring changes in student coping skills and behaviors, emotion regulation and recognition, and self-compassion, compared to control cohort.

Innovation's strengths and limitations

Strengths of our curriculum include: innovative, transdisciplinary, equity-driven case-based approach. Limitations include: Selection bias, small sample size, medical student facilitators without formal training.

Feasibility and generalizability

Case based learning structure exists in many medical schools, making it feasible to incorporate additional cases from this curriculum that teach needed skills. We are

recruiting students nationwide, therefore our results will be generalizable beyond the UCSF campus.

References

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IF YOU BUILD IT, THEY WILL COME: INCREASING TEAM CAPACITY THROUGH COST-RECOVERY INFRASTRUCTURE

SESSION 1- POSTER 13 ABSTRACT ID: 1157409

Proposal Category: Innovation Abstract

Abstract Topic: Simulation and Technology

Submitter: Pauline Becker

Author(s): Pauline Becker, MA, Michael McAuliffe, BA, Teggin Summers, Ph.D.,

Intended audience:

- Undergraduate Medical Education (pre-clerkship)
- Undergraduate Medical Education (clerkship)
- Graduate Medical Education
- Continuing Medical Education

Objective or purpose of innovation

Five years ago, Stanford EdTech did not have capacity to meet demand from Stanford Medicine instructors for production of multimedia course materials. EdTech has since increased capacity by establishing a cost-recovery infrastructure. In this session we'll present the tools and techniques we used.

Background and/or theoretical framework and importance to the field

A cost-recovery infrastructure can reduce outsourcing work and building redundant skill sets.

Design: Instructional methods and materials used

The critical components of our cost-recovery infrastructure include:

--Creating word-of-mouth demand through strict commitment to multimedia production excellence,

--Formal project intake process, including prioritization rubric,

--Task hours tracking system,

--Cost/task rate sheet,

--Contract with a major freelancer agency,

--Invoicing system, and

--Close collaboration with our finance department.

Outcomes

In 2019, Stanford EdTech tracked 7 projects, 1 of which took 1000+ hours. Our cost-recovery system was implemented in 2020. In 2021, we generated over $113K in recoveries and tracked 18 projects, 5 of which took 1000+ hours. Today, we are able to increase output, keep our commitment to multimedia production excellence and practice continuous improvement through team skill building and application of new techniques.

Innovation's strengths and limitations

The tools used to track this process come at a cost, but this cost pays for itself with income generated. Service components need to be trackable for invoicing. An institutional mechanism for transfer of funds between departments is required. A

manager is needed to run the process, but the benefits of tracking at this level are myriad, including creating a solid data-based record for institutional reporting, marketing and communications.

Feasibility and generalizability

With a few start-up funds and a process-improvement mindset, any department can apply these techniques to establish a cost-recovery infrastructure for projects or services. For example, we have applied a similar approach to expand our learning management system offerings. This session will describe a framework that can be used at any scale, any institution, and in any service-providing team to expand capacity.

References

Stanford EdTech: https://med.stanford.edu/edtech.html
Stanford EdTech project prioritization rubric: https://docs.google.com/spreadsheets/d/1J0fVfkoq6nZC2npTMA9N1y5c7XgWy0KWCwnAZxSOxVg/edit?usp=sharing
Stanford EdTech Projects by Year: https://docs.google.com/document/d/1fEnvRhl2Lgl2QFY8nZzehir7ZRCHgqkivueexQprhIw/edit?usp=sharing
Ftrack: https://www.ftrack.com/en/
Podio: https://podio.com/
UpWork: https://www.upwork.com/home/

IMPACT OF MEDICAL STUDENTS' AGE ON CHANGES OF ATTITUDES TOWARD THE UNDERSERVED

SESSION 1- POSTER *ABSTRACT ID: 1150387*

Proposal Category: Research Abstract

Abstract Topic: Assessment

Submitter: Kristine Liang

Author(s): Kristine R. Liang, Lily Z. Liu, Edward G. Simanton, PhD

Intended Audience: Undergraduate Medical Education (pre-clerkship)

Research Statement/Research Question

The purpose of the study was to examine how age at matriculation correlates with the worsening of medical students' attitudes towards the underserved (MSATU).

Background and relevance of the study

Medical students' attitudes toward the underserved population tend to worsen as they undergo their medical education. Previous studies have shown that medical students who worked directly with the underserved population expressed significantly more positive attitudes than those who did not interact with the underserved. Kirk Kerkorian School of Medicine (KKSOM) has a longitudinal service-learning program incorporated into its curriculum, and we want to determine if the age at matriculation has an impact on the decline of MSATU.

Design and methods

Data for this study were drawn from institutional databases in accordance with an approved IRB protocol. Subjects included Class of 2021-2024 medical students at KKSOM. Participants were divided by age at matriculation: age 27 or less, and age 28 or more. Before and after their preclinical phase, medical students at KKSOM took MSATU. The MSATU is a validated self-reported assessment that measure medical students' attitudes towards the underserved divided into 3 sub-scales: total, access, and USA influence attitude change. Results were compared between the two age groups across the 3 sub-scales.

Results

Students who matriculated at age 28 or higher showed greater decline in the total attitude change sub-scale compared to students who matriculated at age 27 or less.

Conclusions

Younger medical students who interact with the underserved population are more likely to retain good attitudes toward the underserved during the preclinical phase of medical school. More studies will need to be done at multiple institutions to generalize the findings.

References

1. Arebalos, M. R., Botor, F. L,. Simanton, E., & Young, J. (2021). Required longitudinal service-learning and its effects on medical students' attitudes toward the underserved. Medical Science Educator, 31(5), 1639-1643. DOI: 10.1007/s40670-021-01350-7

IMPACT OF WELLNESS ACTIVITIES ON STRESS LEVELS OF MEDICAL STUDENTS IN THEIR CLINICAL YEAR

SESSION 1- POSTER 15 *ABSTRACT ID: 1151930*

Proposal Category: Research Abstract

Abstract Topic: Assessment

Submitter: Lily Liu

Author(s): Lily Z. Liu, Edward G. Simanton, PhD, Kristine R. Liang

Intended Audience: Undergraduate Medical Education (pre-clerkship)

Research Statement/Research Question

The purpose of this study was to determine whether time spent on wellness activities correlates with decreasing stress levels of medical students in their primary clinical year.

Background and relevance of the study

The clinical year is one of the most stressful periods of a medical student's career. Previous studies have associated wellness activities with improved psychological well-being of medical students in their preclinical studies. Kirk Kerkorian School of Medicine offers weekly wellness activities (i.e. exercise, yoga, meditation) in an attempt to alleviate stress levels experienced by students in their clinical year. However, we do not know if this has a significant effect on the students' stress levels.

Design and methods

Data for this study was collected from institution databases in accordance with an approved IRB protocol. Medical students from the Class of 2022 completed wellness questionnaires at the end of their clinical year, which included the AAMC Perceived Stress Scale. Students ranked their stress on a scale of 0-4 on four items (possible scores range from 0-16). Students were also asked to estimate the amount of time spent on wellness activities in an average week throughout their clinical year. Mean stress levels were compared between groups who spent less than 5 hours a week on wellness activities to those who spent 5 or more hours per week.

Results

Medical students that have spent 5 or more hours per week on wellness activities report significantly lower stress levels compared to those who spent less time on such activities.

Conclusions

Wellness activities of at least 5 hours per week contributes to a lowering of medical students' stress levels during their clinical year. However, further studies must be done to determine if this effect is found at other medical schools.

References

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during clinical rotations and student well-being. Academic Medicine, 84(2), 258–268. DOI: 10.1097/ACM.0b013e31819381b1

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IMPLEMENTING THE UNR MED ALLYSHIP FORUM AIMED TO TEACH SOCIAL DETERMINANTS OF HEALTH RELATED TO MINORITY PATIENT POPULATIONS TO PROVIDE EQUITABLE CARE

SESSION 1- POSTER 16 ABSTRACT ID: 1146937

Proposal Category: Innovation Abstract

Abstract Topic: Diversity, Equity, Inclusion and Anti-Racism in the Learning Environment

Submitter: Sonia Figueroa

Author(s): Sonia Figueroa, Nicole Jacobs, PhD

Intended audience

- Undergraduate Medical Education (pre-clerkship)
- Undergraduate Medical Education (clerkship)
- Graduate Medical Education
- Continuing Medical Education

Objective or purpose of innovation

Provide a DEI training to learn about the social determinants of health (SDOH) of minority patient populations - to become a better ally and advocate.

Background and/or theoretical framework and importance to the field

Medical educators and academic medical centers are responsible for creating physicians who are allies and advocates for their most vulnerable patients. In response to the health disparities seen by individuals and groups who have been marginalized and discriminated against, the National Academics of Sciences have implored the preparation of healthcare professions to address SDOH at the patient and community level.

UNR Med's Medical Education Program Objectives currently lack any mention of DEI training. The Allyship Forum will allow medical students to demonstrate an understanding of, and responsiveness to, systemic inequities and implicit biases faced by minority groups within the healthcare system to provide equitable care for diverse populations.

Design: Instructional methods and materials used

The Allyship Forum is a 5-part series with a specific focus on one Diversity Student Interest Group at each forum. Each presentation will be led by one of the following UNR Med chapters: the SNMA, the APAMSA, the LMSA, the AMWA, and MedPride; and will consist of a presentation and clinical vignette in which the SDOH are discussed.

Pre- and post-survey questions given based on a likert scale.

1.I am confident in recognizing SDOH related to the minority group discussed in this session

2.I feel it is important to recognize and address the SDOH as part of whole patient care

3.I am confident in recognizing implicit biases patients in this minority

4.I am comfortable treating a patient from this minority

Outcomes

1.Pre:3.6087, post:4.6102; p-value:<.0001

2.Pre:4.7826, post:4.9661; p-value:0.0043

3.Pre:3.7246, post:4.6441; p-value:<.0001

4.Pre:3.8696, post:4.7966; p-value:<.0001

Innovation's strengths and limitations

Increased participants confidence/comfortability in recognizing/addressing the SDOH impacting patient care within these populations.

It was not a required DEI training, limiting the number in attendance.

Feasibility and generalizability

Any medical institution is capable of implementing this DEI training

References

1. Doobay-Persaud, A., Adler, M.D., Bartell, T.R. et al. Teaching the Social Determinants of Health in Undergraduate Medical Education: a Scoping Review. J GEN INTERN MED 34, 720–730 (2019). https://doi.org/10.1007/s11606-019-04876-0
2. https://med.unr.edu/ome/curriculum/2017-objectives

INCORPORATING IDENTITY, ATTRACTION, AND BEHAVIOR EXPERIENCES INTO SEXUAL AND GENDER MINORITY EDUCATION REFORM IN UNDERGRADUATE MEDICAL EDUCATION

SESSION 1- POSTER 17 *ABSTRACT ID: 1155207*

Proposal Category: Research Abstract

Abstract Topic: Diversity, Equity, Inclusion and Anti-Racism in the Learning Environment

Submitter: Raymond Reynolds

Author(s): Raymond C. Reynolds, B.S., Caitlin Phillips, B.A., Cornelia Keyser, B.A., Kayla Blickensderfer, B.S., Julie Thomas, MD, Candace J. Chow, PhD, Kerri Shaffer, MEd, MLIS, Lisa Diamond, PhD

Intended Audience: Undergraduate Medical Education (pre-clerkship)

Research Statement/Research Question

The goal of this research paper is to develop a novel set of sexual and gender minority (SGM) learning objectives that distinguish between identity, attraction, and behavior in undergraduate medical education and determine what gaps exists in the 2020-2021 University of Utah School of Medicine preclinical curriculum based off of these learning objectives.

Background and relevance of the study

Sexual and gender minority (SGM) bias, discrimination, and disparities in health care are well documented, and enormous challenges still exist for SGM individuals when accessing health care (1-5). Many medical students feel that they have not received sufficient curricular preparation to treat SGM patients and address health disparities (6). Educating future health care professionals about the specific needs of SGM patients can play an important role in mitigating discrimination and improving the delivery of patient-centered and SGM-inclusive care. In 2014, the Association of American Medical Colleges (AAMC) published a set of 30 competencies to address SGM-specific health disparities to be incorporated in undergraduate medical education (UME), and in 2018, Georgetown School of Medicine (GSOM) published a new auditing strategy that incorporated these AAMC competencies along with a set of learning objectives written by Vanderbilt School of Medicine (VSOM) (2, 7).

Design and methods

In this interdisciplinary, student-led study, AAMC competencies and Vanderbilt learning objectives were combined and then modified using language and rationale that reflect the experiences and risk factors of SGM individuals by distinguishing between identity, attraction, and behavior using recent sexual health literature. These novel learning objectives were then used to audit the 2020-2021 University of Utah School of Medicine (UUSOM) pre-clinical curriculum.

Results

The curriculum audit shows gaps in the didactic curriculum and can be used to inform change in a larger curriculum reform at the UUSOM.

Conclusions

These modifications can be used to inform sexual health UME reform at large to improve medical care.

References

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2. DeVita T, Bishop C, Plankey M. Queering medical education: systematically assessing LGBTQI health competency and implementing reform. Med Educ Online. 2018;23(1):1510703. doi:10.1080/10872981.2018.1510703
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4. Su D, Irwin JA, Fisher C, et al. Mental Health Disparities Within the LGBT Population: A Comparison Between Transgender and Nontransgender Individuals. Transgend Health. 2016;1(1):12-20. Published 2016 Jan 1. doi:10.1089/trgh.2015.0001
5. In Makadon, H. J., In Mayer, K. H., In Potter, J., In Goldhammer, H., & American College of Physicians (2003-),. (2015). The Fenway guide to lesbian, gay, bisexual, and transgender health.
6. Zelin NS, Hastings C, Beaulieu-Jones BR, et al. Sexual and gender minority health in medical curricula in new England: a pilot study of medical student comfort, competence and perception of curricula. Med Educ Online. 2018;23(1):1461513. doi:10.1080/10872981.2018.1461513
7. Hollenbach AD, Eckstrand KL, Dreger A, editors. Association of American Medical Colleges. Implementing curricular and institutional climate changes to improve health care for individuals who are LGBT, gender nonconforming, or born with DSD: a resource for medical educators. 2014. [cited 2018 February15]. Available from: https://members.aamc.org/eweb/upload/Executive%20LGBT%20FINAL.pdf

MEASURING COMPLIANCE AND MOVING TOWARD EXCELLENCE: HOW CQI IS APPLIED AT TWO SCHOOLS

SESSION 1- POSTER 18 *ABSTRACT ID: 1157449*

Proposal Category: Innovation Abstract

Abstract Topic: Assessment

Submitter: Raquel Givens

Author(s): Raquel H. Givens, M.Ed., Melanie P. Dean, M.Ed.

Intended audience

- Undergraduate Medical Education (pre-clerkship)
- Undergraduate Medical Education (clerkship)

Objective or purpose of innovation

The goal of the session is to continue building a shared understanding of CQI as it applies to medical education and a community among those professionals charged with accreditation/CQI at schools.

Background and/or theoretical framework and importance to the field

Continuous Quality Improvement (CQI) has varying meanings and is applied in various ways to improve the quality of medical education programs with the introduction of the LCME Element 1.1 Strategic Planning and Continuous Quality Improvement.

Design: Instructional methods and materials used

The presenters are from two separately accredited medical schools in Arizona that are under the same parent university and affiliated with the same clinical partner. They will share how they operationalize CQI at their schools, the benefits, and challenges therein (especially during a pandemic), and share change management processes, dashboarding, and evaluation tools. Of note, both schools are preparing for upcoming full accreditation survey visits in early 2022. The sessions will cover a brief history of CQI, CQI culture, and imagine the possibilities that a CQI mindset can foster.

Outcomes

Attendees will be able to:

• Identify key features of a CQI culture and how these contribute to improving medical education

• List barriers and challenges in applying CQI systems in medical education

• Find ideas for change management strategies, project development, and evaluation

• Adopt/adapt ideas and innovations to systems at their schools

• Network with other professionals charged with accreditation/CQI

Innovation's strengths and limitations

There will be an invitation to join a national movement to organize a network of medical education professionals in accreditation and CQI for establishing a community of practice, professional development, and curating best practices/evidence-based models for doing the work.

Feasibility and generalizability

This presentation is generalizable to all LCME accredited medical schools as they look for ways to comply with accreditation standards and institutionalize CQI in their business practices.

References

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2. Bendermacher, De Grave, W. S., Wolfhagen, I. H. A. P., Dolmans, D. H. J. M., & Egbrink, M. G. A. O. (2020). Shaping a Culture for Continuous Quality Improvement in Undergraduate Medical Education. Academic Medicine, 95(12), 1913–1920. https://doi.org/10.1097/ACM.0000000000003406

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PERCEIVED BENEFITS AND DRAWBACKS OF CONSTRUCTED RESPONSE SHORT ANSWER QUESTIONS (CR-SAQS) IN UNDERGRADUATE MEDICAL EDUCATION PRE-CLERKSHIP ASSESSMENT

SESSION 1- POSTER 19 *ABSTRACT ID: 1153863*

Proposal Category: Research Abstract
Abstract Topic: Assessment
Submitter: Tracy Fulton

Author(s): Tracy B. Fulton, PhD, Marieke Kruidering, PhD
Intended Audience: Undergraduate Medical Education (pre-clerkship)

Research Statement/Research Question

The purpose of this multi-institutional study was to understand learner and educator perspectives regarding benefits and drawbacks of constructed response short answer questions (CR-SAQ) in pre-clerkship summative assessment.

Background and relevance of the study

Some US medical schools use CR-SAQ exams to assess students' medical knowledge, but the benefits of a constructed response assessment can extend beyond simply assessing knowledge1. Studies examining learner and educator perspectives on this topic in medical education are limited1,2. A broader understanding of the views of learners and educators can aid in quality improvement for institutions implementing this type of assessment.

Design and methods

This was a mixed methods study at three US medical schools utilizing CR-SAQ exams. We distributed a survey to students in three cohorts (260, 19%) and faculty (57, 48%). Analysis of responses to nine 5-point Likert items based on Norcini's criteria for good assessment3 provided descriptive statistics. Responses to two open-ended questions were deductively coded using Norcini's criteria, and thematic analysis yielded qualitative themes.

Results

The quantitative and qualitative results were well aligned. More than 80% of both students and faculty agreed that CR-SAQ exams better represent real-life professional situations (authenticity), positively impact student preparation for exams (educational effect) and improve future student learning and curriculum development (catalytic effect). Drawbacks included the time needed to take and score questions (feasibility), concern that questions are ambiguous (construct validity), and that scoring could be subjective (reproducibility). There were mixed results on the acceptability of this exam format, with respondents listing both benefits and drawbacks.

Conclusions

We conclude that the CR-SAQ exam format is beneficial to learner and educators beyond providing measurement of medical knowledge and should be considered by medical educators in their programs of assessment. Some drawbacks were noted,

however, and future studies should be aimed at best practices to improve in these areas.

References

1. Bird JB, Olvet DM, Willey JM, Brenner J. Patients don't come with multiple choice options: essay-based assessment in UME. Med Educ Online. 2019;24(1):1649959.
2. Hift RJ. Should essays and other "open-ended"-type questions retain a place in written summative assessment in clinical medicine? BMC Med Educ. 2014;14:249.
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TO BE OR NOT TO BE CONTINUED…MOVING THE PRE-CLERKSHIP CURRICULUM PAST THE PANDEMIC

SESSION 1- POSTER 20 *ABSTRACT ID: 1153523*

Proposal Category: Small Group Discussions

Abstract Topic: Basic Science: Teaching and Learning Pedagogies and Curricula

Submitter: Melissa Chang

Author(s): Andrew Cuyegkeng, B.S., Melissa M. Chang, B.S., Arina Alexeeva, B.S., M.S., Joseph A. Breuer, B.S., M.S., Javier J. Lepe, B.S., Milton Greenberg, PhD

Intended Audience: Undergraduate Medical Education (pre-clerkship)

Rationale

With the advent of the COVID-19 pandemic, medical schools rapidly developed pandemic-appropriate curricula, hoping to continue to deliver a high quality educational experience. Because different schools achieved varying levels of success in this implementation, it is crucial for institutions to discuss their experiences with one another. As medical education is constantly adapting to meet the needs of students, the ultimate goal of this small group discussion is to build collective knowledge of successful strategies used during the quarantine and push them past the pandemic.

Learning Objectives

The audience will:

#1: compare the medical physiology curriculum at University of California, Irvine, School of Medicine (UCISOM) before and during the pandemic and student perceptions of both

#2: understand the challenges of virtual learning for pre-clerkship medical students at UCISOM and other institutions

#3: discuss potential changes to medical education during the post-pandemic era

Session Methods and Format

Introduction: (4 minutes)

We will begin by describing how the Medical Physiology and Pathophysiology course has been traditionally run pre-pandemic at UCISOM. We will then discuss how a new, virtual curriculum that includes synchronous and asynchronous learning was designed at the start of the COVID-19 pandemic and implemented for 1st year medical students in the fall of 2020. Afterwards, we will discuss the surveys we developed to assess medical students' satisfaction, academic performance, perception of school support, and connectedness before and during the pandemic.

Facilitated discussion: (36 minutes)

The facilitated discussion will be organized across four main topics: academic performance, medical student connectedness, medical student satisfaction, and level of in-person activities. For each topic, we will first share the results of our study comparing the responses of those who had the physiology curriculum entirely in-person (Class of 2023) to those who had the virtual curriculum (Class of 2024). Then we

will actively poll participants on trends they perceive at their respective institutions. Sharing the poll results, we will start a discussion so that participants can learn from the collective experiences of others. We will ask curricula specific questions such as "what changes has your medical school implemented that have received positive/negative feedback?" Then, participants will discuss how they plan to integrate aspects of the virtual curriculum into future renditions of the medical school curriculum. Ultimately, we hope that representatives from various schools can inspire each other with strategies that have been successful, so that audience members can bring these ideas back to their own schools and advance their curricula.

Conclusion / Q+A: (5 min)

We will close the discussion with key points illuminated in the facilitated discussion and offer any additional time for questions and comments.

Experience

Melissa Chang is a second-year medical student at UCISOM who successfully led an active discussion on curricula innovation at the 2021 UC Riverside Conference for Teaching and Learning.

Andrew Cuyegkeng is a second-year medical student and curriculum innovator at UCISOM who has been recognized and awarded for his research on medical education during the COVID-19 pandemic.

References

Lepe JJ, Alexeeva A, Breuer JA, Greenberg ML. Transforming University of California, Irvine medical physiology instruction into the pandemic era. FASEB Bioadv. 2020;3(3):136-142. Published 2020 Dec 15. doi:10.1096/fba.2020-00082

TRANSFORMING SCHOLARLY INVESTIGATION AND HEALTH LITERACY WITH WIKIPEDIA

SESSION 1- POSTER 21 *ABSTRACT ID: 1155347*

Proposal Category: Innovation Abstract

Abstract Topic: Basic Science: Teaching and Learning Pedagogies and Curricula

Submitter: TeHilla Paul

Author(s): TeHilla M. Paul, Bachelor of Medical Sciences , Bachelor of Medicine and Surgery (MBBS), Prarthana Subedi, Bachelor of Medicine and Bachelor of Surgery (MBBS), Amin Azzam, MD, MA, Monica Contreras, Bachelor of Medicine and Bachelor of Surgery (MBBS)

Intended audience

- Undergraduate Medical Education (pre-clerkship)
- Undergraduate Medical Education (clerkship)

Objective or purpose of innovation

The Wikipedia-editing course is a contemporary medical research course where medical students acquire scholarly investigation skills while concurrently assuming socio-medical responsibility.

Background and/or theoretical framework and importance to the field

The program was established at the University of California, San Francisco in 2013. In 2021, it was incorporated into the UCSF MS-2 Course: Core Inquiry Curriculum. It is also available to non-UCSF medical students globally as an asynchronous online module. Wikipedia is a volunteer coordinated online encyclopedia utilizing open collaboration for articles in 325 languages. WikiProject Medicine manages all health-related articles (Wikipedia Contributors, 2021). Wikipedia is often used for health information prior to visiting a health care professional. Our program teaches students the basics of scholarly investigation while they give back to the global community by increasing Wikipedia's health related content accuracy.

Design: Instructional methods and materials used

The Wikipedia editing course is conducted annually. In 2021, 8 students from 8 medical schools in 6 different countries participated. The course dashboard is hosted by WikiEdu and teachings are conducted via asynchronous and synchronous teaching and peer review sessions.

Outcomes

In 2021, 8 students edited 8 articles adding 7.24K words and 63 references. At the end of the course, students testified about their positive learning experiences.

Innovation's strengths and limitations

This program teaches students how to translate medically complex topics for the benefit of the public. Additionally, students practice social responsibility as Wikipedia has been ameliorating health literacy globally. The program's values are rooted in supporting diversity, equity and inclusion in medicine as evidenced by the vast origins of our editors and the range of articles selected that focus on disorders experienced by people of various ethnicities. Limitations include the short duration of the course and difficulty in enrollment of the course at faculties due to inadequate course credit space.

Feasibility and generalizability

The WikiEdu platform and course website features make the program easily generalizable to health based curricula at institutions globally.

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USMLE STEP 2 PREDICTION MODEL AND OPTIMAL DEDICATED STUDY TIME WITHIN A LONGITUDINAL INTERLEAVED CURRICULUM

SESSION 1- POSTER 22 *ABSTRACT ID: 1148912*

Proposal Category: Research Abstract

Abstract Topic: Clinical Skills: Teaching and Learning Pedagogies and Curricula

Submitter: Sabrina Antonio

Author(s): Sabrina Antonio, Wynona Dizon, BS, Rachel A. Kracaw, BS, Edward G. Simanton, PhD

Intended Audience: Undergraduate Medical Education (clerkship)

Research Statement/Research Question

This study analyzes academic factors that predict Step 2 scores and whether or not Step 2 performance is affected by a specific length of dedicated study time within Kirk Kerkorian School of Medicine's Longitudinal Interleaved Clerkship (LInC) curriculum.

Background and relevance of the study

With Step 1 transitioning to pass/fail, program directors report that Step 2 will have greater importance in the selection of residents.

Design and methods

Academic measures were gathered (n=101) including undergraduate GPA, undergraduate science GPA, MCAT, Step 1, NBME subject exams, and Step 2. Pearson correlations were run between variables and Step 2 scores to measure individual variables. A regression model measured impacts of variables together. Actual and predicted scores were compared to indicate which students overperformed or underperformed on Step 2. A t-test was used to compare the mean difference between predicted and actual performance of students who had two weeks or less of dedicated study time for Step 2 versus students who had a longer dedicated study period.

Results

The mean score for dedicated <2 weeks was 251.87 versus 240.81 for waiting. The Pearson coefficient for the prediction model was $R=0.820$ ($p<0.001$). The group with <2 weeks dedicated study (n=54) had average actual scores significantly higher than their predicted scores (Mean=1.61, SD=9.21). Students with >2 weeks (n=48) tended to score lower than their predicted scores (Mean=-1.67, SD=6.44). An independent sample t-test between the two groups yielded $t(100)=2.06$, $p=0.042$.

Conclusions

This study found that Step 2 scores can be effectively predicted using performance measures and students within a LInC curriculum who took Step 2 within two weeks of dedicated study strongly outperformed students who waited.

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VIRTUAL RECRUITMENT: PROGRAM ADMINISTRATOR EXPERIENCES AND FUTURE RECOMMENDATIONS

SESSION 1- POSTER 23 *ABSTRACT ID: 1136898*

Proposal Category: Research Abstract

Abstract Topic: Student Affairs and Services

Submitter: Whitney Harper

Author(s): Whitney Harper, MSAL, Andrea Campbell, BA

Intended Audience: Graduate Medical Education

Research Statement/Research Question

The purpose of this phenomenological qualitative study was to document the experiences of virtual resident recruitment from the program administrator's perspective.

Background and relevance of the study

In-person interviews for resident recruitment allow applicants to interact with the program and city before finalizing their rank lists to match. However, due to the COVID-19 pandemic, all resident and fellow recruitment activities moved to a virtual setting. Prior research suggests that while interviewing in-person with programs is expensive and time-consuming for applicants, they still prefer in-person interviews over virtual ones. Little is known, however, about the impacts of moving to a virtual setting from the perspective of the residency program administrator.

Design and methods

A link to an anonymous web-based survey was sent to Internal Medicine residency and fellowship program administrators via a Program Administrator listserv through the Alliance for Academic Internal Medicine. The researchers independently coded all responses; one researcher used descriptive coding, the other in vivo coding. The researchers reviewed results together for themes and patterns.

Results

Participants were diverse in location, program size, and experience. Five strong themes emerged from the responses: benefits and challenges of virtual recruitment, program engagement and practice, logistics and technology required for virtual recruitment, reliance on outside help, and interactions with applicants. Analysis revealed that program administrators 1) believed benefits outweighed challenges in virtual recruitment, 2) saw more participation from faculty and residents than with in-person interviews, 3) felt pressure to learn and train others on new technology, 4) often sought help from others outside their department and institution, and 5) believed virtual interviews provided greater accessibility to and engagement opportunities with applicants.

Conclusions

Based on findings from a nationally representative survey, we document program administrators prefer virtual over in-person recruitment. Program faculty and resident

participation are needed for successful recruitment; virtual recruitment provides additional ways for these groups to participate in the process.

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MAKING MENTORSHIP VIRTUAL: STUDENT-LED GROUP ADDRESSING SHIFTING NEEDS IN MENTORSHIP RELATIONSHIPS FOR FEMALE-IDENTIFYING STUDENTS AND PHYSICIANS

SESSION 1- POSTER 24 *ABSTRACT ID: 1157260*

Proposal Category: Innovation Abstract

Abstract Topic: Career Trajectory

Submitter: Jenna Jensen

Author(s): Jenna Jensen, BS, Morgan Williams, Ha Do Huy Le, Emily M. Graham, BSN, Arielle Melen, Telisha Tausinga, BS

Intended audience

- Undergraduate Medical Education (pre-clerkship)
- Undergraduate Medical Education (clerkship)

Objective or purpose of innovation

We sought to identify how virtual mentorship programming affects female mentorship relationships.

Background and/or theoretical framework and importance to the field

Despite more women entering medicine, the number of women holding leadership positions remains low. Historically, targeted mentorship of women has successfully addressed barriers to professional development. However, the COVID-19 pandemic forced a shift in how medical education is implemented—with potentially detrimental effects on preexisting mentorship models. Data on the effectiveness of virtual, compared to face-to-face, mentorship, particularly for female students, remains inconclusive.

Design: Instructional methods and materials used

We sought to fill this need by translating an annual mentorship event for women in medicine at our medical school into a virtual format and assessing its impact compared to prior in-person iterations. WE WILL (Women Empowering Women In Leadership) is a student-led group at the University of Utah School of Medicine that aims to support female-identifying medical students in pursuing leadership positions in medicine. Our annual Spring Mentorship event focuses on building mentor/mentee relationships between physicians in leadership and medical students. In 2021, the Spring Event Mentorship event was held virtually, and the survey that followed solicited opinions regarding the virtual nature of the event compared to years past.

Outcomes

A survey of 16 students and 12 faculty showed that faculty prefer virtual events more than students, which suggests there is opportunity to expand faculty participation in mentorship via virtual mentorship programming.

Innovation's strengths and limitations

Our current data is limited by small sample size and only one example implementation of virtual programming. However, our results suggest there is an opportunity to

innovate more virtual programming and determine if faculty participation increases without a decrease in student satisfaction.

Feasibility and generalizability

All female medical students can benefit from the opportunity to build mentor/mentee relationships with female physicians at their respective institutions. This type of programming is easily implementable, and with the possibility of virtual execution, more accessible than ever.

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