2023 Faculty Launch Fellow FLIP Abstracts			
First Name	Last Name	Poster Title	Abstract
Enitan	Adegite	Increase Access to Long Acting Reversible Contraception at the Teen and Young Adult Center: IALARC	Goals Increasing access to Long-Acting Reversible Contraception (Larc) at The Teen and Young Adult Center by provision of (i)Intrauterine Devices on Site and (ii)Identifying barriers and opportunities to improve access to Nexplanon Background Teen pregnancy although on the decline continues to be an ongoing challenge in the USA1. Teen Pregnancy is associated with negative outcomes such as higher risks of eclampsia, puerperal endometritis, and systemic infections, and babies of adolescent mothers face higher risks of low birth weight, preterm birth, and severe neonatal conditions2. Adolescents have the highest rates of unintended pregnancies. 75% of pregnancies in teens ages 15-19yo are unintended 3. Hispanic, non-Hispanic black and American Indian/Alaska Native teens have the highest rates of teen births in the USA4. Access to effective contraception is one of the strategies to reduce teen pregnancy. LARC methods are less user dependent, and therefore have lower failure rates, so are recommended as first line when contraceptives are being offered. Their use is also associated with increased initiation and continuation of birth control. These Larcs include progestin containing intrauterine systems, Copper intrauterine device and etonogestrel subdermal implant -Nexplanon®. These Larcs can be used for 3-16 years depending on type. Intrauterine systems and devices also have the added advantage of being effective forms of emergency contraception. Services are provided to all patients irrespective of insurance status i.e., if they do or do not have health insurance. The overarching mission of the TYAC is to equip teens and young adults with the tools necessary to make well-informed decisions regarding their sexual and reproductive health, increase knowledge of and access to services offered, and to create safe spaces for teens and young adults to find support and resources to foster positive life outcomes. Developmentally appropriate, medically accurate, confidential, and comprehensive sexuality education that includes information on abstinence as well as the full range of FDA-approved contraceptives are offered free or low-cost at the TYAC. Fertility awareness-based methods (FABMs), reproductive life plan education, condoms and condom negotiation skill counseling, sexually transmitted infection (STI) screening and treatment, a variety of oral contraceptive pills, the vaginal ring, Nexplanon include the broad range of services that are being offered.
Amy	Althoff	Improving the Patient Experience by Providing Gender-Affirming Care	The Partnership Comprehensive Care Practice (PCCP) proposes to develop durable, sustainable, gender-affirming training curricula for PCCP providers and staff to effectively deliver robust, patient-centered, trauma-informed gender-affirming care to our transgender and gender non-conforming (TGNC) patients. We submitted our Ryan White HIV/AIDS Program Part C Capacity Development Program grant application in February, 2023 which would enable us to carry out this project to its fullest potential. PROBLEM: Our LGBTQ+ community, especially men who have sex with men, transgender, and gender non-conforming (TGNC) people, are disproportionately affected by HIV. TGNC patients face numerous barriers to healthcare including stigma and trauma, which prevent many from achieving optimal physical and mental wellness. PCCP provides care to 27 patients who identify as TGNC, but actual numbers are likely higher. PROPOSED ACTIVITIES: Ten nominated PCCP clinic “champions” will work in collaboration with Mazzoni Center, a Philadelphia community-based leader in gender-affirming care, with PCCP client representatives, and with DUCOM’s Office

2023 Faculty Launch Fellow FLIP Abstracts			
First Name	Last Name	Poster Title	Abstract
Seema	Baranwal	Developing LEARN (Learning Environment Assessment and Response Network) and Increasing Transparency in Mistreatment Reporting and Outcomes	Address the institutional need to increase effectiveness of the response to medical student mistreatment reporting. • Increase transparency in mistreatment reporting such that the trust between the student body and the leadership is strengthened, and ultimately the learning environment is improved for all. • Increase ease of anonymous reporting such that reporting frequency, candor, and detail is improved
Jessica	Barson	Establishing a Mentoring Circle for Drexel Graduate Students	I am working to establish a mentoring circle for students in the Graduate School of Biomedical Sciences and Professional Studies (GSBSPS) at Drexel who identify as women or non-binary. This mentoring circle will focus on graduate student- and Drexel-specific issues, where members can exchange experiences, challenges, and opportunities in order to enhance their self-confidence, communication skills, and commitment to their graduate training. This peer-to-peer mentoring opportunity will be offered in once-monthly meetings at a Drexel University campus location. This type of mentorship is
Max	Cooper	Creation of a Resuscitative TEE Program	Expertise in ultrasonography is becoming an essential part of effective patient care in the emergency department(ED) and throughout the practice of medicine. As our Emergency Medicine(EM) and medicine continue to evolve, our division is focused on educating Drexel students, Residents, and Fellows in core, advanced, and emerging sonography skills. One area of emerging specialty wide interest that we aim to incorporate in our workflow is that of transesophageal echocardiography (TEE) in the resuscitation of cardiac arrest and the critically ill. The use of TEE in cardiac resuscitation has historically been used in critical care settings such as operating theatres and
Eduardo	Espiridion	Improving Access to Mental Health Services at Reading Hospital	To provide a blueprint of the strategy to improve mental healthcare access at Reading Hospital To propose departmental and system wide changes to open access to a timely mental healthcare
Janet	Fitzpatrick	Improving Narrative Assessment: Giving Feedback to the Evaluator	Formative feedback is essential for both faculty and students to develop and fine-tune skills. Evaluation of students in the clinical setting poses unique challenges as assessment is subjective in nature. Students need quality feedback to identify areas of strength and enhance their growth to target areas for further development. Quality assessments will provide a more accurate picture of student competencies for the final Inpatient Internal Medicine Clerkship Evaluation and for the Medical Student Performance Evaluation (MSPE) letter that is provided to Electronic Residency Application
Margaret	Gilfillan	Establishing a Point of Care Ultrasound Program in the Neonatal Intensive Care Unit	Point of care ultrasound (POCUS) is defined as an ultrasound (US) exam performed at the bedside by a non-radiology and non-cardiology trained provider with the goal of either guiding a procedure or obtaining focused diagnostic information to guide immediate management. This practice is currently well established in multiple adult specialties and is rapidly gaining traction in pediatric emergency medicine, pediatric critical care, and neonatology. The AAP has recently issued a series of clinical reports on the use of POCUS in the Neonatal Intensive Care Unit (NICU) that stress the need for the development of a hospital wide committee, close collaboration between pediatric radiology, cardiology, and POCUS practitioners as well as clear delineation of scope of practice. POCUS is considered by many as a key skill in neonatology and there is a pressing need for our fellows at St Christopher's Hospital for Children to gain experience in this medium prior to graduation. As the newly designated director for neonatal POCUS my short-term goals are to build a safe, effective training program for fellows in neonatal-perinatal medicine, advanced practice clinicians and faculty members. I aim to do this by forging close links with my colleagues in pediatric emergency medicine, pediatric critical care, radiology, and cardiology with plans to
Zhabiz	Kazeminezhad	Building a Transitional Clinic in Collegeville	To create a transitional outpatient clinic that provides outpatient psychiatric care for patients discharged after receiving psychiatric treatment at Phoenixville Hospital in non-traditional settings including the med-surge floors as well as overnight

2023 Faculty Launch Fellow FLIP Abstracts			
First Name	**Last Name**	**Poster Title**	**Abstract**
Renee	Kottenhahn	Development of a Planning Model to Unify Drexel University College of Medicine Campuses in the Execution of the Clerkship Fundamentals Course	Background: Drexel University College of Medicine (DUCOM) employs a distributed medical education model, with seven "two-year" clinical regional medical campuses across the United States. In 2021, DUCOM added a "four-year" regional campus under the same Liaison Committee on Medical Education (LCME) accreditation umbrella. The new regional campus offers the same curriculum as the main campus and must maintain comparability. The inaugural class of students has now completed the first two years of study and is entering the clinical phase of medical school education. As part of this transition, the Clerkship Fundamentals (CF) course was introduced for the first time at the regional campus (April 24 - May 17, 2023). Significance: Clerkship Fundamentals is an established course at DUCOM, designed to provide critical knowledge and skills needed for students to successfully navigate the clinical phase transition. The dynamic four-week course includes individually paced online modules, scheduled practice with standardized patients, as well as live lectures and in-person small and large group sessions facilitated by faculty on campus. It was important to understand how to deliver all of the elevments of the course with fidelity. Objective: Launching the first CF Course at DUCOM's new regional campus was the overarching objective of this project. This required attention to the existing curriculum infrastructure and an understanding of the management strategies used
Nandini	Madan	A Path Forward-A Template for Multidisciplinary Programs(MDP) as Part of Cardiac Service Line	Congenital heart disease is the most common birth defect requiring hospitalization. Advances in management strategies have resulted in markedly increased life expectancy for children with many complex cardiac diagnoses (e.g., single ventricle physiology). • Survivors are at risk for downstream consequences of changes in circulation that may affect many organ systems. In addition, with increased longevity, many primary non cardiac diagnoses have cardiac consequences, that also require ongoing cardiac diagnostic and therapeutic care. • The current fee for service subspeciality care model does not serve these individuals to provide the multidisciplinary care needed for complex quaternary level conditions. Thus, an integrated practice unit (IPU) care model
Ogechukwu	Menkiti	Dedicated Research Space for ECMO will Improve Research Quality and Scholarly Productivity	The ECMO program at St Christopher's Hospital for Children provides excellent care for critically ill children with cardiorespiratory failure. Over the years we have contributed to what is known about ECMO therapy, its complications as well as pharmacokinetic studies to illustrate changes in the PK secondary to ECMO. During ECMO runs we are faced with significant clinical events related to inevitable changes in the inflammatory milieu of these patients. These changes in inflammatory proteins have been poorly studied and requires a methodological approach for successful investigation. Our team has developed a pilot study to describe the inflammatory changes that occur following initiation of ECMO in critically ill patients. Furthermore, we want to compare these changes to those that occur in critically ill patients that do not require ECMO. Our pilot study has yielded encouraging results over the last 5 months confirming feasibility and

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First Name	**Last Name**	**Poster Title**	**Abstract**
Vanessa	Pirrone	Restructuring the medical school admissions process: Transitioning to multiple mini-interviews (MMI) as part of a holistic review process	The mission of Drexel University College of Medicine (DUCOM) states; "Drexel University College of Medicine excels and innovates in education, research, and delivery of compassionate care in our culture of diversity, spirited inquiry, collaboration, and opportunity". In line with our mission and from recommendations by the Association of American Medical Colleges (AAMC), DUCOM utilizes a holistic approach to assessment of applicants for admission into the program. Part of this process includes a traditional faculty interview. These less structured interviews do not necessarily help to determine specific applicant attributes and also may be more prone to bias in the unstructured questions being asked, which may lead to bias in scoring. The use of structured questions, with specific rubrics for scoring, are thought to provide better interrater reliability and also be less prone to bias. One mechanism being utilized to incorporate structured
Todd	Strochlic	Reintegrating Biochemistry into the Phase 2/3 Curriculum at Drexel	Virtually all pathology and disease can be viewed through the lens of biochemistry and can be explained in terms of fundamental biochemical concepts. One limitation of the medical school curriculum in its current format is that all of the biochemistry material is front-loaded, being delivered very early on in the Foundations and Frontiers Curriculum (i.e. all during first year) with little to no opportunity for students to revisit this material once they have been exposed to clinical medicine. Not surprisingly, a frequent comment from students is that they wished biochemistry was integrated throughout the curriculum, allowing them to see the connections and draw parallels from the basic science they learned in Year 1 to
Adrienne	Willard	Developing Faculty with Cultural Humility using Patient-First, Inclusive Language	Biased language influences health care provider's perception of patients which can impact care. It is critical that our trainees embrace and exercise patient-first language during their careers. Our faculty unit is diverse coming from many clinical campuses and stages of their careers. We need to centralize the use of patient-first language to allow our trainees to learn in an unbiased environment with cultural humility. We will assess faculty's current understanding and comfort with patient-first language, build a curriculum to heighten awareness, and provide tools for faculty to use later, and lastly assess faculty satisfaction and willingness to change practices (if appropriate).

Increase Access to Long-Acting Reversible Contraception at the Teen and Young Adult Center: IALARC

Enitan Adegite MD MPH

Section of Adolescent Medicine in the Department of Pediatrics

DREXEL UNIVERSITY College of Medicine FACULTY LAUNCH

Background and Significance

Teen pregnancy continues to be an ongoing challenge in the USA[1]. Teen Pregnancy is associated with negative outcomes such as higher risks of eclampsia, puerperal endometritis, and systemic infections, and babies of adolescent mothers face higher risks of low birth weight, preterm birth, and severe neonatal conditions[2]. Adolescents have the highest rates of unintended pregnancies. 75% of pregnancies in teens ages 15-19yo are unintended [3] .Hispanic, non-Hispanic black and American Indian/Alaska Native teens have the highest rates of teen births in the USA[4].

Access to effective contraception is one of the strategies to reduce teen pregnancy. Long-Acting Reversible Contraception (LARC) methods are less user dependent, and therefore have lower failure rates. LARCs are recommended as first line for contraception. Their use is associated with increased initiation and continuation of birth control. They can be used for 3-16 years depending on the LARC.

St. Christopher's Hospital for Children located in the Port Richmond/Juniata section of Philadelphia, provides essential services to many families that are disproportionately affected by high rates of poverty and health disparities including high teen pregnancy rates. The Teen and Young Adult Center (TYAC), located in the Section of Adolescent Medicine at St. Christopher's Hospital for Children, has been successfully providing quality reproductive health services e.g., health counselling, screening for pregnancy and sexually transmitted infections, provision of contraception including insert Nexplanon to adolescents ages 13-21 across Philadelphia for over 40 years. 47% of patients served at the TYAC identify as Hispanic, 46% as African American and 4% Caucasian . Teen pregnancy rates per 1000 were 43 nationally, 27.2 in Pennsylvania , 61.5 in Philadelphia and 52.5 at the TYAC in 2014.

Increasing access to Long-Acting Reversible Contraception (LARC) at The Teen and Young Adult Center will assist with reducing teen pregnancy and decrease health disparities for adolescents in the North Philadelphia Area.

Goal

Increase Access to Long-Acting Reversible Contraception(LARC) at the Teen and Young Adult Center.

Objectives

Increase access to Long-Acting Reversible Contraception (LARC) at The Teen and Young Adult Center by provision of at least 4 Intrauterine Devices at the St Christopher's Hospital campus by December 31st, 2023.

Increase access to Long-Acting Reversible Contraception (Larc) at The Teen and Young Adult Center by identifying 3 barriers and opportunities to improve access to Nexplanon by August 1st, 2023.

Methods and Approach

- Schedule stakeholders' meetings
- Identify and engage collaborators/partners from clinicians from gynecology and family medicine.
- Make a budget
- Human resources- contracts and onboarding for gynecology or family medicine clinician.
- Credentialing of gynecology or family medicine clinician.
- Source start up cost
- Procurement of devices and supplies
- Training of staff
- Develop algorithms to identify and manage LARC side effects in a timely and efficient manner.
- Identify and develop appropriate workflow, electronic medical templates for documentation and billing
- Provide advertising- Out and In reach
- Develop a quality improvement project to evaluate provision of Nexplanon at the TYAC

Short Term and Long- Term Outcomes

Process Outcomes

- IRB approval for Quality Improvement Project

Short Term Outcomes

- Standardization of patient counseling

Long Term Outcomes

- Number of patients that have devices placed
- Increased billable encounters
- Increased learning opportunities on LARC for pediatric residents

Challenges and Strategies

- Time and competing clinical priorities
- Strategy: Leverage mission driven, engaged and enthusiastic adolescent medicine staff

- Funding
- Strategy: secure external grant funding to finance start up costs

- Sustainability
- Strategy: ensure clinicians are credentialed and can bill for services provided

- Communication
- Strategy: Out and in reach, hospital newsletters, provider meetings, staff and faculty meetings

- Access to health care and navigating the health care system by teens
- Strategy: training staff members and having designated health counselors to assist with scheduling, education, signing patients for EMR portal , sending reminder texts and phone calls for appointments

- Lack of transportation
- Strategy: provision of septa passes for patients younger than 18, and uber for patients >18yo that identify transportation as a barrier to care

Evaluation and Assessment Strategies

Survey and Data analysis on:

- Reproductive health counseling
- Evaluate access e.g., LARC Appointment slot availability
- Patient appointment show rates for LARCs
- Patient characteristics, volume and trends

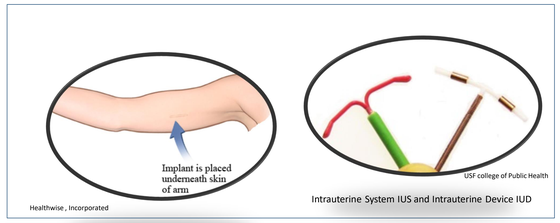
Discussion and Impact

The number of patients utilizing LARCs for contraception should increase with a consequent decrease in teen pregnancy rate overtime in the patients getting care at the TYAC.

Increased interdepartmental collaborations and the use of LARCs for additional non contraceptive benefits e.g., IUS for management of menorrhagia in patients with bleeding disorders.

Increase in the number of billable services for LARCs ensuring sustainability of this service.

LARCS



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Improving the Patient Experience by Providing Gender-Affirming Care

Amy Althoff, M.D.

Partnership Comprehensive Care Practice, Drexel University College of Medicine

DREXEL UNIVERSITY College of Medicine

FACULTY LAUNCH

Partnership Comprehensive Care Practice
Drexel Medicine

Abstract

The Partnership Comprehensive Care Practice (PCCP) proposes to develop durable, sustainable, gender-affirming training curricula for PCCP providers and staff to effectively deliver robust, patient-centered, trauma-informed gender-affirming care to our transgender and gender non-conforming (TGNC) patients. We submitted our Ryan White HIV/AIDS Program Part C Capacity Development Program grant application in February, 2023 which would enable us to carry out this project to its fullest potential.
PROBLEM: Our LGBTQ+ community, especially men who have sex with men, transgender, and gender non-conforming (TGNC) people, are disproportionately affected by HIV. TGNC patients face numerous barriers to healthcare including stigma and trauma, which prevent many from achieving optimal physical and mental wellness. PCCP provides care to 27 patients who identify as TGNC, but actual numbers are likely higher.
PROPOSED ACTIVITIES: Ten nominated PCCP clinic "champions" will work in collaboration with Mazzoni Center, a Philadelphia community-based leader in gender-affirming care, with PCCP client representatives, and with DUCOM's Office of Diversity, Equity and Inclusion (ODEI) to create and operationalize gender-affirming educational curricula. This will include an asynchronous required training for on-boarding and discipline-specific trainings for Partnership providers and staff. These teams will also ensure that Outreach materials are gender-affirming and communicate PCCP services effectively. Training materials will be shared with all Drexel Medicine clinics who care for people with HIV and serve an urban, gender-diverse population.
GOALS: To improve the patient experience and health outcomes for TGNC patients at the Partnership Comprehensive Care Practice by creating a safe space and team of knowledgeable staff by: 1) Improving care of our TGNC patient community by educating and training staff in partnership with a Philadelphia community leader in LGBTQ+ care and DUCOM's ODEI), 2) Improving engagement of TGNC patients in care and achieving equity with cisgender measures, 3) Increasing linkage of TGNC patients at PCCP.

Background and Significance

Transgender and gender diverse people encounter barriers to basic human rights including healthcare. Stigma and discrimination are pervasive and increase risk of morbidity and mortality. In the U.S. Transgender Survey nearly 1/3 of respondents who had seen a medical provider in the past year reported having at least one negative experience with a healthcare provider related to being transgender. 23% of survey respondents reported avoiding seeking healthcare they needed due to fear of being mistreated as a transgender individual.[1] Transgender youth are particularly at high risk of suicide, and rates of HIV among transgender people are staggering, especially for racial and ethnic minorities. In one study, 42% of transgender women in seven US cities reported having HIV, and 62% of Black or African American transgender women had HIV.[2] Among those *diagnosed* with HIV, current US statistics show that transgender people have similar rates of prescribed ART, retention in care, and viral suppression as the rest of the population living with HIV.[3] At PCCP however, inequities exist. In addition, complete data for our trans and gender diverse population is lacking and is often hindered by a lack of emotional and physical safety in self-reporting, as well as skewed polling methods.[4]

	2020		2021		2022	
	TGNC	Overall	TGNC	Overall	TGNC	Overall
Prescription of ART	25/25 (100%)	1575/1578 (99.8%)	25/25 (100%)	1468/1469 (99.9%)	27/27 (100%)	1397/1399 (99.8%)
Retention in Care	17/20 (85%)	1189/1366 (87%)	14/22 (64%)	1013/1302 (77.8%)	15/19 (79%)	1016/1224 (83%)
Viral Suppression	18/25 (72%)	1168/1578 (74%)	20/25 (80%)	1204/1469 (82%)	21/27 (78%)	1217/1399 (87%)

Retention in HIV care and viral suppression rates among TGNC patients at PCCP and in Philadelphia fall below overall rates. Improving access to and retention in care is essential to ending the HIV epidemic, and we must determine and meet the needs of *all* groups to reach this goal.

Goal

To improve the patient experience and health outcomes for TGNC patients at the Partnership Comprehensive Care Practice by creating a safe space and team of knowledgeable staff.

Objectives

Objective 1: Improve care of our TGNC patient community by educating and training staff in partnership with a Philadelphia community leader in LGBTQ+ care and DUCOM's Office of Diversity, Equity, and Inclusion (ODEI).

Objective 2: Improve engagement of TGNC patients in care and achieve equity with cisgender measures.

Objective 3: Increase linkage of TGNC patients at PCCP.

Larger goals of this project include expansion to Drexel Medicine as a whole and include sharing of training materials and establishment of benchmarks to provide gender-affirming care at all clinical entities.

Methods and Approach

Objective 1 Action Steps:
- Create standardized educational materials on gender-affirming care (GAC) to improve cultural competency and sensitivity for all staff.
- Offer required asynchronous training on gender-affirming care to all providers, staff, trainees, and students.

Objective 2 Action Steps:
- Create discipline-specific trainings on gender-affirming care with a "train the trainer" approach in collaboration with the Mazzoni Center
  1) Clinicians: GAC history, exam, treatment
  2) MCM's and BHC's: Barriers, support, legal, mental health
  3) PSR's, MA's, and Outreach: Inclusive language, completion of forms, EMR and insurance, awareness of treatment options
- Provide discipline-specific trainings to providers and staff two times/year.

Objective 3 Action Steps:
- Review and update Outreach materials outlining PCCP health services to ensure 1) materials are gender-affirming and 2) materials effectively communicate medical and support services, including gender-affirming treatment
- PCCP Outreach participates in TGNC-inclusive community events, offers health educational materials, HIV testing, and linkage to care

Resources:
- Partnership Comprehensive Care Practice LGBTQ+ Care Committee, allies and gender-affirming expertise of individual providers and staff.
- Collaborators: Mazzoni Center, a leader in Philadelphia in LGBTQ and gender-affirming care and Drexel University College of Medicine's Office of Diversity, Equity, and Inclusion (ODEI)
- Team Members: 10 Gender-Affirming Care Champions- 4 physicians, a Behavioral Health Consultant, Lab Manager, Lead Physician Services Representative, Grant Manager, Outreach Manager, and Peer Specialist
- Financial: Ryan White Part C Capacity Building Grant ($150,000) would fund this initiative. If we do not receive financial support from HRSA, we will need to scale down the plan.

Short Term and Long Term Outcomes

Timelines and Benchmarks:

Objective 1:

September-October 2023- PCCP GAC champions, Mazzoni educators, ODEI representative, and identified PCCP clients meet and establish learning objectives.
November 2023-January 2024- Creation of recorded, asynchronous learning module.
January 2024- Operationalize training module for PCCP
February 2024- Operationalize training module for Drexel Medicine

1) Completion of required training by all staff
2) Staff pre and post course knowledge assessment

Objective 2:

October- 2023- PCCP GAC champions meet with Mazzoni educators as both a whole group and then as disciplines to determine learning objectives
January-March 2024- PCCP GAC champions (trainers) learn material.
March-May 2024- Mazzoni educators train the trainer on teaching and delivery of material and navigating discussions and challenges.
June-August 2024- Trainers train staff in discipline-specific groups.

1) Mid-training assessment of trainers (i.e.. Am I a good teacher)
2) PCCP staff provide feedback on training experience
3) Clinician completion of sex and gender EMR sections for patients with visits between 2/2024-8/2024
4) Performance measures: Retention in Care and Viral Suppression
5) HEI Survey results of evaluation year 2023-2024

Objective 3:

January 2024- Mazzoni educators, Outreach and designated clinical champions meet to review current materials
January-March- Materials are updated and/or created
March-September- Outreach attends community events, brings new materials, conducts HIV testing education, and links new patients to PCCP

1) Outreach participation at TGNC-inclusive community events
2) Linkage of new patients who identify as TGNC to care at PCCP

Challenges

Anticipated challenges to this project include:

- Uncomfortable situations may arise. We will encourage one another to call people "in" and support one another.
- Scheduling of clinic champion sessions. Project participation will occur during work hours, and time will be blocked for meetings, learning, and teaching.
- Consistent participation of community advisory board members and TGNC peers. We will contact participants well in advance of need, and we will provide monthly gift cards based on hours of participation.
- If the grant is not funded, we plan to change our objectives to align with available finances and provider and staff time based on agreed upon priorities of PCCP LGBTQ+ Care Committee and PCCP Leadership Committee. We would also plan to apply for Part C Supplemental funding in 2024.

Evaluation and Assessment Strategies

Expected Outcomes:

Objective 1: Improvement in awareness, clinic culture, and patient satisfaction as demonstrated in staff and patient surveys.

Objective 2: Provision of clinic-wide gender-affirming care, improved performance measures for TGNC patients. We expect Retention in Care and Viral Suppression rates for our TGNC patients to achieve equity with our entire patient population by July, 2025.

Objective 3: Increase in referrals and linkage of TGNC patients from the Philadelphia community to PCCP. We expect to increase the number of referrals for TGNC patients to PCCP by 25% by July, 2024, and by 50% by July, 2025. We expect to successfully link 100% of TGNC patients to care within 1 month of referral.

Discussion and Impact

Studies show that gender affirmation improves retention in HIV care and viral suppression. 2022 Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents with HIV indicate that "HIV care services should be provided within a gender-affirmative care model to reduce potential barriers to ART adherence and to maximize the likelihood of achieving sustained viral suppression." It is important to continue to meet all patients where they are, and to partner together. For example, for many transgender people, gender-affirming hormone therapy is a greater priority than HIV treatment, and concerns about drug-drug interactions between hormones and ART may prevent patients from taking their HIV medication.[5,6] Gender-affirming care is essential in creating safety which allows for patients to engage in care and optimize health during all aspects of a visit including check-in with front desk staff, meeting with a provider, having blood drawn by a medical assistant to checking-out and scheduling a follow-up appointment.

As the proportion of people reporting gender-diverse identities is increasing in the US, our hope is to develop a program which provides a safe affirming environment for our current patients and to welcome new patients seeking HIV prevention and treatment. We plan to continue to address stigma and discrimination, expand gender-affirming medical and psychosocial treatment, and improve our patient experience for TGNC folks by effectively utilizing our data collection methods, training providers and staff on gender-affirming care, and ensuring durable, sustainable, discipline-specific education moving forward to align with our mission: **To provide exemplary, compassionate, patient-centered care to improve the health of those we serve in a way that values all lived experiences, identities, languages, lifestyles, abilities and goals**. We plan to utilize these training materials for future on-boarding and continuing education of staff for PCCP and eventually all Drexel Medicine clinics who care for people with HIV and serve an urban, gender-diverse population.

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Developing LEARN (Learning Environment Assessment and Response Network) and Increasing Transparency in Mistreatment Reporting and Outcomes

Seema Baranwal, MD FACP, Senior Associate Dean for Student Affairs, Associate Professor of Medicine, Drexel University College of Medicine

Sponsor: Donna Russo, PhD, William Maul Measey Chair of Medical Education, Interim Vice Dean of Educational and Academic Affairs, Professor, Dept. of Microbiology and Immunology

Background and Significance

Background:

- Medical student mistreatment has been a longstanding concern of the AAMC (1) and has in recent years come into sharper focus at Drexel University College of Medicine (DUCOM). In the AAMC's annual Graduation Questionnaire (GQ), a national survey of graduating medical students, mistreatment is defined as behavior that "shows disrespect for the dignity of others and unreasonably interferes with the learning process. It can take the form of physical punishment, sexual harassment, psychological cruelty, and discrimination based on race, religion, ethnicity, sex, age, or sexual orientation (2)."
- The first step to combating medical student mistreatment is to ensure students are aware of the school's mistreatment policies and understand the procedures available to report mistreatment. In the 2017 GQ data for DUCOM, we observed our students had a sharp decrease in both areas compared to the national data of all medical schools.
- DUCOM students are required to review the Student Handbook, complete knowledge assessments, and partake in mandatory sessions containing cases on ethics, professionalism, and moral courage. Despite these requirements, medical students were not aware of the policies and procedures of mistreatment reporting at a high enough rate.
- In 2017, I developed and implemented a mobile reporting application, DUCOMpass, which resulted in a linear, year-over-year improvement in a) awareness of mistreatment policies and b) reporting procedures. As of the 2022 DUCOM GQ, we are scoring well above the national mean for both areas (see graphs to the right).
- Currently, the named individuals receiving and addressing mistreatment reports are not known to the students or the faculty; the group is listed in the handbook as the "Early Response Group." In addition, there are no report-outs to the students or the faculty bylaw committees regarding mistreatment reports.

Significance:

- DUCOM is now poised and equipped to expand and further support students and leadership when mistreatment is reported.

Goals

- Address the institutional need to increase effectiveness of the response to medical student mistreatment reporting.
- Increase transparency in mistreatment reporting such that the trust between the student body and the leadership is strengthened, and ultimately the learning environment is improved for all.
- Increase ease of anonymous reporting such that reporting frequency, candor, and detail is improved.

Objectives

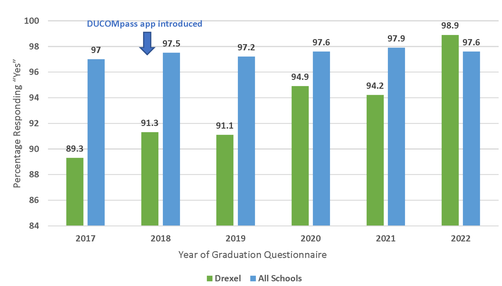
Achieve during Launch Fellowship:

- Acquire knowledge of the mistreatment reporting processes at various U.S. medical schools, as well as aggregate reporting to the constituents, in their institutions
- Create Learning Environment Assessment and response Network (LEARN) with leaders from Student Affairs, Clinical Education, Professionalism, and Diversity, Equity, and Inclusion.
- LEARN to establish operating procedures and accountability measures for mistreatment reports.
- Collaborate with DUCOM IT leadership to improve the current mistreatment reporting portal and create anonymous tokens for reporters.
- Create transparency with the student body through education; about the mistreatment reporting process; students will learn about who receives mistreatment reports, what occurs when a report is filled,

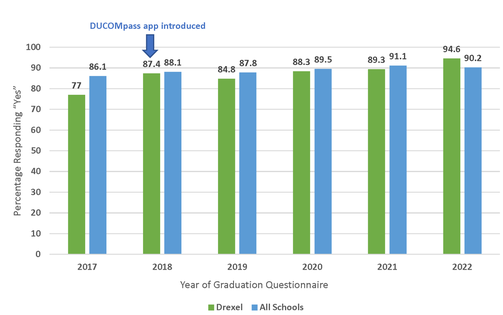
Achieve after Launch fellowship:

- Design and deliver aggregate reports to the groups that have been decided on, as above (e.g., the Executive Committee of the Faculty, the Curriculum Committees).
- Create an overarching Learning Climate Committee, which will include LEARN plus broader representation, including from the Offices of Faculty, Curriculum, and Assessment, as well as the student body and the regional campus leadership.

AAMC Graduation Questionnaire: Are you aware that your school has policies regarding the mistreatment of medical students?



AAMC Graduation Questionnaire: Do you know the procedures at your school for reporting the mistreatment of medical students?



Methods and Approach

Methods:

- Query AAMC national Group on Student Affairs listserv on how other medical schools address mistreatment reports, and the method and frequency of their aggregate reporting to various involved parties (e.g., students, faculty, bylaw committees).
- Invite DUCOM leaders to join LEARN, with specific objectives outlined for the group.
- LEARN to examine and catalog responses from other medical schools to inform, along with their own expertise, operating procedures and accountability measures for reporting to the constituency.
- LEARN to establish how often and to whom the aggregate reporting will be shared. This group will devise categories of mistreatment by which to organize the aggregate reporting (e.g., delineating choices for type of offense, mechanism of offense, and role of perpetrator).
- Collaborate with DUCOM IT leadership to limit access to the mistreatment reporting portal to LEARN members only and add functionality for LEARN members to claim a case and provide progress reports.
- Collaborate with DUCOM IT to create anonymous tokens for reporters such that they can be queried for more information and also be given feedback on resolution of the case without divulging their identity.
- List on the mistreatment reporting form and website the names and roles of all LEARN members, as well as administrative (e.g. IT team members) who have access to the reports, to ensure full transparency.

Resources needed:

- Human resources - LEARN members will need time to meet and collaborate on the achieving the objectives.
- IT resources – enhancing the current professionalism portal will require dedicated time from the DUCOM IT team as well as website revision and creation.

Short-term and Long-term Outcomes

Short-term (during Launch Fellowship):

- Creation of LEARN
- Creation of operating procedures and accountability measures for mistreatment reports
- Transparent listing of individuals receiving and acting on mistreatment reports
- Enhanced functionality of the mistreatment reporting portal

Long-term (after Launch Fellowship)

- Aggregate report to students and faculty, as well as bylaw committees
- Creation of Learning Climate Committee

Challenges

- Based on the preliminary data received from 8 institutions that have answered the query of how they report mistreatment reports in aggregate, the process is variable across institutions. Developing best practices for our institution will take some additional qualitative analysis.
- Expanding LEARN to the regional clinical campuses will require additional human and technological resources.

Evaluation and Assessment Strategies

Evaluation strategy:

- Description of what other U.S. medical schools are doing regarding mistreatment reporting, as well as aggregate reporting to the constituents, in their institutions.
- Creation of LEARN including its membership and establishment operating procedures and accountability measures for mistreatment reports.
- Creation and delivery of regular aggregate reports of mistreatment to the student body, the faculty, and to relevant institutional bylaw committees (e.g. the Curriculum Committee and the Executive Committee of the Faculty).
- Development or discovery of measurement tool to evaluate effect of transparency in the reporting process on the learning climate in the pre-clerkship and the clinical curricula.

Discussion and Impact

- Changing and improving the learning climate is an iterative process with many variables.
- Increasing transparency will be one way of improving the learning climate, as all involved parties will know the number and types of mistreatment reports.
- This knowledge can inform initiatives to change the culture and learning climate for both teachers and learners.
- The impact of safe and welcoming learning environments cannot be overstated in medical education, as cohesive and functional teams improve the care and outcomes of patients.

Future Directions

For future leadership training (e.g., ELAM), I plan to:

- Expand LEARN through the establishment of chapters at each regional campus, including the regional deans and DIOs.
- Add learning environment awards to Golden Apples so those at our pre-clerkship campuses, regional campuses, and affiliate clinical sites who are creating safe and effective learning environments for our students can be officially recognized.
- LEARN Chapters will:
  - Each receive a curriculum of faculty development and DEI education, as well as support from the main DUCOM LEARN.
  - Serve as champions for a safe learning environment and will educate and support their local clinical teaching faculty. This will create a positive culture shift at the local level, improving the learning environment for both students and other learners in the health system.
  - Be empowered, in concert with the main LEARN, to recognize and address both strengths and opportunities in their learning environments.

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Establishing a Mentoring Circle for Drexel Graduate Students

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DREXEL UNIVERSITY College of Medicine

FACULTY LAUNCH

Abstract

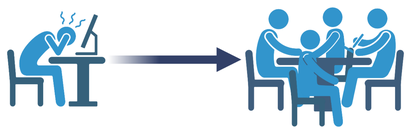
I am working to establish a mentoring circle for students in the Graduate School of Biomedical Sciences and Professional Studies (GSBSPS) at Drexel who identify as women or non-binary. This mentoring circle will focus on graduate student- and Drexel-specific issues, where members can exchange experiences, challenges, and opportunities in order to enhance their self-confidence, communication skills, and commitment to their graduate training. This peer-to-peer mentoring opportunity will be offered in once-monthly meetings at a Drexel University campus location. This type of mentorship is not currently offered at Drexel and, given the lack of parity for women in science, technology, engineering, and mathematics (STEM), should serve an unmet need for the GSBSPS at Drexel. Indeed, mentoring women has been shown to have a major impact on their retention and satisfaction. I have leadership experience in addressing the needs of women in STEM, which positions me well for achieving this current goal. In summary, specific mentoring for woman-identifying and non-binary graduate students is an unmet need in the GSBSPS at Drexel, using a mentoring circle could help with student retention and success, and I have the appropriate experience to implement this program.

Background and Significance

- Although women make up half of the total U.S. population, they are underrepresented at all levels in science, technology, engineering, and mathematics (STEM). Moreover, while two-thirds (65%) of women working in STEM jobs have at least a bachelor's degree, compared with less than half (43%) of men, women have lower median earnings than men in these jobs [1]. Thus, women are still far from achieving parity with men in the STEM fields.
- Emerging evidence shows that peer-mentoring networks can be an effective mechanism for the retention and satisfaction of underrepresented groups [2]. Because of this, mentoring circles for women in STEM have in recent years been implemented across the country.
- My project is to establish a mentoring circle for students in the Graduate School of Biomedical Sciences and Professional Studies (GSBSPS) at Drexel who identify as women or non-binary.
- This project will enhance my leadership skills and competencies by allowing me to develop and implement a new program at the graduate school, which focuses on the needs of a specific graduate student population.
- If successful, the program will enhance the retention and satisfaction of our students. These have declined nationally since the start of the COVID-19 pandemic among STEM trainees, particularly among women [3]. Depending on the level of interest, this program can then, in the future, be expanded to establish additional mentoring circles for other groups across Drexel.

Goal

The goal of this project is to establish a mentoring circle at Drexel that will actively foster an environment of belonging and support for woman-identifying and non-binary students in the GSBSPS. The purpose is to enhance the involvement and, consequently, retention and satisfaction of this population.



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Objectives

- The concrete objective of this project is to establish a mentoring circle composed of students in the GSBSPS at Drexel who identify as women or non-binary.
- This mentoring circle will meet one evening per month, alternating between Drexel campus locations.
- Circle leaders will be senior graduate students. All woman-identifying and non-binary students in the GSBSPS will be invited to attend.
- Meeting materials will be developed by me, from materials available from Lean In (https://leanin.org/), and adapted for student-specific issues. Topics will include navigating advisor-advisee dynamics, attending scientific meetings, and managing in-lab (student-to-student) dynamics. The structure of these meetings should allow members to exchange experiences, challenges, and opportunities in order to enhance their self-confidence, communication skills, and commitment to their graduate training.
- The goal is to enable a peer-to-peer mentoring system that will reinforce a sense of community with Drexel.
- **Objectives to be met during the Launch Fellowship:**
  - Develop meeting materials
  - Recruit circle leaders
  - Initiate mentoring circle meetings

Methods and Approach

1. **Develop meeting materials**
   Materials for ten, monthly meetings will be developed from online materials provided by Lean In.
2. **Implement pre-circle survey for all GSPSBS students**
   With support from the administration, a questionnaire will be sent to all GSBSPS students about their current level of satisfaction and belongingness in their program.
3. **Recruit and train 2 – 3 circle leaders**
   By word of mouth, senior graduate students across GSBSPS programs will be approached about leading a circle in the coming year. Leaders will then be trained in the responsible delivery of the meeting materials.
4. **Advertise the circle through Drexel**
   With support from the administration, emails will be sent out to GSBSPS students to recruit interested members for the circle.
5. **Reserve rooms for monthly meetings**
   Once members have agreed on a 2-hour time period that works for them on a monthly basis, rooms will be reserved at Queen Lane and New College Building for these meetings.
6. **Debrief with circle leaders each month**
   While maintaining the confidentiality of the meeting itself, circle leaders will discuss with me, the faculty mentor, what went well, what could be improved, and what additional topics may warrant coverage in the future.
7. **Implement post-circle survey for all GSPSBS students**
   With support from the administration, a questionnaire will be sent to all GSBSPS students at the end of the academic year about their level of satisfaction and belongingness in their program.

Short Term and Long Term Outcomes

- **Short-term objectives**
  - Provide a space for students who identify as women or non-binary to engage in peer-to-peer mentoring surrounding issues encountered by biomedical graduate students at the Drexel University College of Medicine.
  - Increase levels of satisfaction and belongingness among woman-identifying and non-binary students in the GSBSPS at Drexel, as determined by an increase in these levels in the target population across the two surveys.
- **Long-term objectives**
  - Increase success and retention of students in the GSBSPS at Drexel, as determined by fewer grievances and higher rates of graduation.

Assessment Metrics

- self-confidence
- communication skills
- commitment to graduate training
- satisfaction
- belongingness

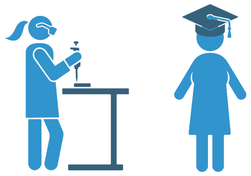
Challenges

The biggest challenge in implementing this project has been finding the **time** to develop it.

A future challenge may be promoting this program in our academic environment, to achieve buy-in from all stakeholders.

Evaluation and Assessment Strategies

- Using surveys administered to GSBSPS students before and one year into the implementation of the mentoring circle project, the overall goals will be considered to be achieved by a finding of increased satisfaction and belongingness in students who identify as women or non-binary, which may occur to a greater degree than in students who identify as men.
- Other measures of success may include fewer student grievances and higher rates of graduation from the GSBSPS program.



Discussion and Impact

- A mentoring circle for students in the GSBSPS at Drexel who identify as women or non-binary will address the needs of this specific student population and should foster an environment of belonging and support. By meeting on a once-monthly basis on the Drexel campus, and with input from me as a faculty mentor, this peer-to-peer mentoring system should enhance the retention and satisfaction of our students.
- In implementing this program, we plan to partner with the Office of Diversity, Equity, and Inclusion.
- I have leadership experience in addressing the needs of women in STEM, which positions me well for achieving this current goal. I served as a mentor for the Association for Women in Science – Philadelphia Chapter, spoke about academic motherhood at the Society for Neuroscience, participated in the Early Career Women Faculty Leadership Development Seminar (EWIS) sponsored by the Association of American Medical Colleges, and have been a member and now Co-Chair of the Women in Medicine and Science Committee at the Drexel University College of Medicine.
- Depending on the level of interest, additional mentoring circles can be established in the future for other groups across Drexel University.
- In summary, (1) mentoring for woman-identifying and non-binary graduate students is an unmet need in the GSBSPS program at Drexel, (2) using a mentoring circle could help with student retention and success, and (3) I have appropriate experience to implement this program.

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Creation of a Resuscitative TEE Program

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DREXEL UNIVERSITY College of Medicine
FACULTY LAUNCH
CROZER SONO DIVISION

Abstract

Expertise in ultrasonography is becoming an essential part of effective patient care in the emergency department(ED) and throughout the practice of medicine. As our Emergency Medicine(EM) and medicine continue to evolve, our division is focused on educating Drexel students, Residents, and Fellows in core, advanced, and emerging sonography skills. One area of emerging specialty wide interest that we aim to incorporate in our workflow is that of transesophageal echocardiography (TEE) in the resuscitation of cardiac arrest and the critically ill.

The use of TEE in cardiac resuscitation has historically been used in critical care settings such as operating theatres and intensive care units by cardiologists, anesthesiologists, and intensivists. More recently an emerging consensus is coalescing around this tool being utilized by emergency physicians(EPs) in emergency departments to guide resuscitation of our critically ill patients. TEE has demonstrated utility in patient care and advantages over transthoracic echocardiography as documented in the scientific literature. Our goal is to bring this tool to our ED at Crozer Chester Medical Center(CCMC) via creation of a local resuscitative TEE program.

Background and Significance

The first piezoelectric crystal was developed in the 1880s, the first Transthoracic Echocardiograms(TTE) were performed in the 1950s, and the first Transesophageal Echocardiograms (TEE) were performed in the 1970s[1]. TEE was first described in the resuscitation of a patient in cardiac arrest in the 1990s[2]. Since then, further studies have demonstrated its utility in optimizing resuscitation via multiple mechanisms including: earlier diagnosis of cause of arrest, optimization of hand placement during chest compressions, and decreasing duration of compression pauses during pulse checks[2]. TEE has been utilized for the resuscitation of critically ill patients for over 3 decades.

My role at CCMC is Associate Program Director(APD) of the EM residency and the Director of EM Point of Care Ultrasound(POCUS) In this role I recruit, train, evaluate, and provide feedback to learners at a variety of different levels of training from medical students and residents, to EM POCUS fellows and attendings. As a regional catchment area for STEMI, Stroke, Trauma, and Burn CCMC sees a high volume of critically ill patients. The creations of a resuscitative TEE program at CCMC will enhance the quality of the critical care we perform at our hospital, will create an opportunity for ongoing scholarship in our EM POCUS division, and will contribute to the developing scholastic consensus on TEE as a feasible and helpful tool in the resuscitation of the critically ill.

Goals

- **Train core EM POCUS team in resuscitative TEE**
- **Introduce resuscitative TEE to the Emergency Department**
  - **Obtain equipment**
  - **Develop credentialling program**
  - **Develop infection control protocol**
  - **Develop quality assurance protocol**
- **Develop Scholarship**
- **Train EM Non-POCUS faculty interested in resuscitative TEE**
- **Develop ongoing training to ensure program sustainability**

Objectives

- **Train Crozer EM POCUS division in resuscitative TEE (PEG Grant, Complete)**
- **Maintenance of skills with TEE allies in other departments (Complete)**
- **Obtain sim equipment for further training and education (efforts ongoing)**
- **Obtain equipment for use in ED (negotiations ongoing)**
- **Develop TEE credentialling process for EPs (efforts initiated)**
- **Develop sterilization process (efforts initiated)**
- **Develop quality assurance program (to be integrated into QA process)**

CCMC EM POCUS Div, complete PEG grant funded training in NYC, summer 2022

Methods and Approach

At the outset of this project our team took an inventory of our divisions and hospital systems core strengths and challenges. This inventory informed our approach to this project.

Strengths:
-Technical expertise with POCUS
-Protected faculty & fellow time to devote to this effort
-Ability to network in our healthcare system, DUCOM, and region
-Departmental leadership support and network
-Ongoing Relationship with Drexel College of Medicine

Challenges:
-Financial status of our Crozer Keystone Health System (CKHS)
-Cost of obtaining task specific training
-Cost of obtaining equipment
-Introduction of new procedural skill to ED workflow

After completing our inventory we had a better understanding of what resources we could bring to bear to complete this project. We realized that we were rich in human, skill, and temporal resources (or as we called it: people, know-how, and time) our goal is to leverage these resources to overcome our financial challenges. We began that process in winter of 2021/2022 by systematically reviewing grant programs at the national, regional, and local level. We categorized them and then determined upon a pathway we believed would give us the greatest chance to successfully navigate our financial challenges. This began with successful PEG grant funding in Spring 2022, and the successfull TEE training our division undertook. Our next step was a DUCOM equipment and training grant in Spring 2023. We just received notification from the grant that we were not selected for this grant season and are currently regrouping and evaluating alternative funding sources.

We have further leveraged our In-hospital networking to coordinate ongoing weekly TEE skill maintenance with our allies in cardiology. We have further leveraged this relationship to identify an US machine and TEE equipment which is functioning but in the process of being replaced by cardiology. They have agreed to transfer it to our department once they successfully replace it with new equipment. This process is stalled pending an improvement in CKHS' financial status. Our allies in cardiology have also helped us identify simulation equipment which can be used to further augment our training and scholarly goals.

Short Term and Long Term Outcomes

Successful outcomes to be measured for this program can be broken down into short term and long term as well as clinical and scholarly/educational.

Short term outcomes

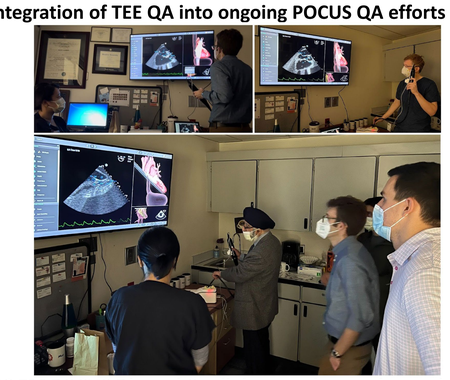
Scholarship/Educational
- **EM POCUS Div TEE training (PEG Grant funded)**
- **Ongoing training with cardiology to maintain skills (ongoing)**
- **Obtain simulation equipment to augment our educational capacity and support credentialling efforts**

Clinical
- **Obtain TEE equipment**
- **Develop TEE credentialling process**
- **Develop TEE sterilization process**

Long term outcomes

Scholarly/educational
- **Ongoing faculty and fellowship education**
- **Production of novel scholarship**
- **Participation in multisite TEE scholarship**

Clinical
- **Integration of TEE QA into ongoing POCUS QA efforts**



CCMC EM POCUS Div and Cardiology evaluates sim equipment

Challenges

The challenges we face in developing a resuscitative TEE program to CKHS are two-fold. One the challenges experienced by the integration of any novel clinical tool, and two, challenges unique to our experience at CKHS. Issues of education, clinical integration, developing processes, and ensuring ongoing quality are not unique to our experience at CKHS. The specific financial challenges we face as well as financial opportunities we have via local grant funding mechanisms are unique to our experience at CKHS.

Our EM POCUS Division has benefitted from DUCOM grants via successful application to the PEG grant program. We utilized this mechanism to pay for our initial TEE training which kickstarted many downstream organizing efforts. We've subsequently were not selected from a second grant application via the equipment and training grant mechanism. We are currently regrouping an considering how to move forward.

We've made progress with clinical implementation by coming to a preliminary agreement to inherit an older TEE probe and associated machines from cardiology when they buy new equipment. This process is on hold until our health system can recapitalize and fund their purchase. Other process development efforts are ongoing to support credentialling and infection control.

Evaluation and Assessment Strategies

We have multiple goals in multiple stages which much be accomplished to successfully build a resuscitative TEE program at CKHS. Our EM POCUS division has identified clinical integration, development of a credentialling process, and development of an infection control process as the next steps in our clinical implementation. The conversations with our credentialling committee, infection control department, and cardiology are ongoing as we await further financial clarity in our health system. Our hope is that these conversations will begin to progress this summer as CKHS undergoes a successful recapitalization process.

Once our TEE program become clinically operation it will be integrated into our ongoing POCUS QA efforts. These involve Qwednesday image review and case discussion. As we review the images obtained by our clinicians we will provide ongoing feedback to ensure image acquisition and interpretation is of high quality.

Discussion and Impact

The first piezoelectric crystal was developed in the 1880s, the first Transthoracic Echocardiograms(TTE) were performed in the 1950s, and the first Transesophageal Echocardiograms (TEE) were performed in the 1970s[1]. TEE was first described in the resuscitation of a patient in cardiac arrest in the 1990s[2]. Since then further studies have demonstrated its utility in optimizing resuscitation via multiple mechanisms including: earlier diagnosis of cause of arrest, optimization of hand placement on chest during chest compressions, and decreasing during of compression pauses during pulse checks[2]. TEE has been utilized for the resuscitation of critically ill patients for over 3 decades.

While there has emerged a general scientific consensus that resuscitative TEE has the potential to benefit patients through earlier diagnosis of critical cardiac states and through optimization of cardiopulmonary resuscitation, implementation of this tool has generally been limited to well resourced health systems. These systems have the financial capability to make investments in these systems, but the volume of critical care they perform is variable. Given our current healthcare landscape there exists a paradigm whereas the health systems with the greatest resources are not necessarily those with the greatest need as measured by critical care volume. CKHS is a health system with a high volume of critical cases and has historically been lacking in financial resources.

Our EM POCUS division hopes that by leveraging out human, technical, and temporal resources we are able to overcome financial obstacles to the successful implementation of this program. We have already met with some early success via our PEG grant funded training, as well as some early obstacles when our equipment grant application was not selected. We will continue to work towards the implementation of this program as our health system and local financial situation allows.

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DREXEL UNIVERSITY College of Medicine

FACULTY LAUNCH

Improving Access to Mental Health Services at Reading Hospital

Eduardo Espiridion, MD ; Maria Ruiza Yee, MD (mentor)

Reading Hospital-Tower Health

Background and Significance

The mental healthcare needs of the community has increased in recent years. Facing financial challenges, Reading hospital had partnered with Acadia Healthcare to increase mental health services to the community. Despite that, the demand for timely services remains lacking. Patient are scrambling for appointments that could extend for several weeks to months.
Mental health care access is troubling. We know that there is high prevalence of mental disorder and less than half are receiving appropriate mental health care. The Surgeon's general report highlights the challenges of gaining access to mental health services in a complex and often fragmented system of healthcare here in the United States of America, (1).
If mental health disorder is not appropriately screened and treated early, they persist and lead to a significant functional impairment with downward spiral of society failures including poor employment opportunities and poverty.. (2).
In addition, there is a shortage of psychiatrists nationwide, and is particularly distressing in the service area coverage of Reading Hospital

Goal

Project goal(
To open up access to mental health care services in a community with limited mental healthcare resources.
To reduce the wait times for psychiatric appointments
To improve patient satisfaction.

Objectives

Project objectives.

To provide a blueprint of the strategy to improve mental healthcare access at Reading Hospital

To propose departmental and system wide changes to open access to a timely mental healthcare

Methods and Approach

Data will be collected from hospital metrics over the course of this year and analyze patient encounters. This is specific for patients requiring mental health evaluations and treatment in the Reading hospital emergency room, hospital floors, and outpatient services. In addition, Press Gany surveys related to patient satisfaction will be tracked along during this period.

Short Term and Long Term Outcomes

1. Increase collaboration with non-psychiatrist providers in the delivery of mental healthcare to patients. This includes hiring psychiatric nurse practitioners and mental health consultants
2. Collaboration with primary care providers to deliver mental health services to a certain demographic of the population. This will include the availability of curbside consults to the providers related to the management of mental disorders
3. Expansion of telemedicine services in the hospital emergency room and inpatient floors. This will reduce the waiting times for the service which will enhance patient satisfaction and earlier interventions that will impact length of stay and waiting times.
4. Implementation of central scheduling in the outpatient services. This will efficiently identify provider availability to schedule patients for service.
5. Increase follow-up services among hospital patients and integration of collaborative care with the medical service with regularity
6.. Involvement od Psychiatry residents in the delivery of mental health services in the hospital and the community
7.Strenghtening crisis responses with multi-disciplinary approaches hospital wide
8. Aligning with community partners
9. Availability of anti-psychotic depot injections for patients with history of non-compliance and relapses
10. Initiation of programs to address complicated clinical cases like the Esketamine clinic.
11. Strengthening the partnership with Acadia through the joint venture, Tower Behavioral health. There will be ongoing collaboration with their treatment providers.

Challenges

Reading hospital is located in West Reading, Pennsylvania, which is considered a mental health shortage area by the Bureau of Primary Health care.
It is extremely challenging to recruit mental health providers to work and live in Berks County, Pennsylvania
Staff resistance is an issue as well as enhancing motivation of the staff

Evaluation and Assessment Strategies

1. Quality Metrics (Emergency Room) including duration of wait to see a psychiatric provider from the time consult order has been ordered. We will also look at the time patients wait until they are transported to another level of care/as well as discharge
2. Quality metrics (Inpatient consults): will look at the timeliness of the consults within 24 hours of the order being ordered
3. Quality metrics (outpatient): will look at the wait times to see a provider. Goal is to have an appointment within the week the request has been called. We will also track the collaboration of care to their outpatient providers for better communication of treatment plans
4. Patient satisfaction will be tracked through press Ganey surveys in all these locations

Discussion and Impact

The mental health service of a community hospital is stretched thin during this unprecedented times. In addition to being designated a mental health professional shortage area, Reading hospital has a number of complicated psychiatric patients. This highlights the state of the state of the challenges of this locality. Several noteworthy efforts have been initiated to address theses issues including the expansion of telepsychiatry services, aggressive recruiting of mental health personnel, and modifying hospital operations that led to an efficient system to address the access to this very important service.

Patients don't have to wait very long to get an mental health evaluation, which is the first step to address issues. This prevents catastrophic events that could potentially happen without appropriate diagnoses and treatment plan implementation.

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DREXEL UNIVERSITY College of Medicine

FACULTY LAUNCH

Improving Narrative Assessment: Giving Feedback to the Evaluator

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Abstract

Formative feedback is essential for both faculty and students to develop and fine-tune skills. Evaluation of students in the clinical setting poses unique challenges as assessment is subjective in nature. Students need quality feedback to identify areas of strength and enhance their growth to target areas for further development. Quality assessments will provide a more accurate picture of student competencies for the final Inpatient Internal Medicine Clerkship Evaluation and for the Medical Student Performance Evaluation (MSPE) letter that is provided to Electronic Residency Application Service® (ERAS®) when students apply for residencies. Quality assessments can lead to improved student satisfaction overall and successful residency matches. Faculty development is needed to better evaluate student performance. Faculty evaluations will be scored using a grading rubric. Faculty will be provided with individualized feedback and a rubric tool to improve the quality and usefulness of written narratives.

Background and Significance

Evaluation of medical student performance in the clinical years poses unique challenges. A large portion of the individual student grade is clinical with a smaller portion attributed to objective standardized testing. Clerkship directors are tasked with reviewing the evaluations of multiple faculty members and consolidating them into one final evaluation. The narrative comments can be sparse in nature and make it difficult to determine a fair assessment of student performance.

The Office of Educational Affairs (OEA) recognizes that quality narrative assessment is an ongoing problem in the clinical years of medical school. The final narrative comments in the clerkship evaluations are used as the foundation for the MSPE which is provided for students in the fourth year when applying to residency programs. It is important for Drexel University College of Medicine (DUCOM) to adequately assess and appropriately describe student competency and preparation for graduate medical education. Improved descriptive narrative comments can help DUCOM students have greater success with the match into residency programs.

In the past, OEA has performed site visits and provided Continuing Medical Education (CME) presentations to groups of faculty on narrative assessment and giving student feedback. There are 2 brief presentations on the Faculty and Residents as Teachers and Educators of Students (FRaTES) portal that include information about providing narrative comments. Although no formal analysis has been done, unofficially, it has been observed that there have been temporary improvements followed by faculty often fall back into the same pattern of evaluating students.

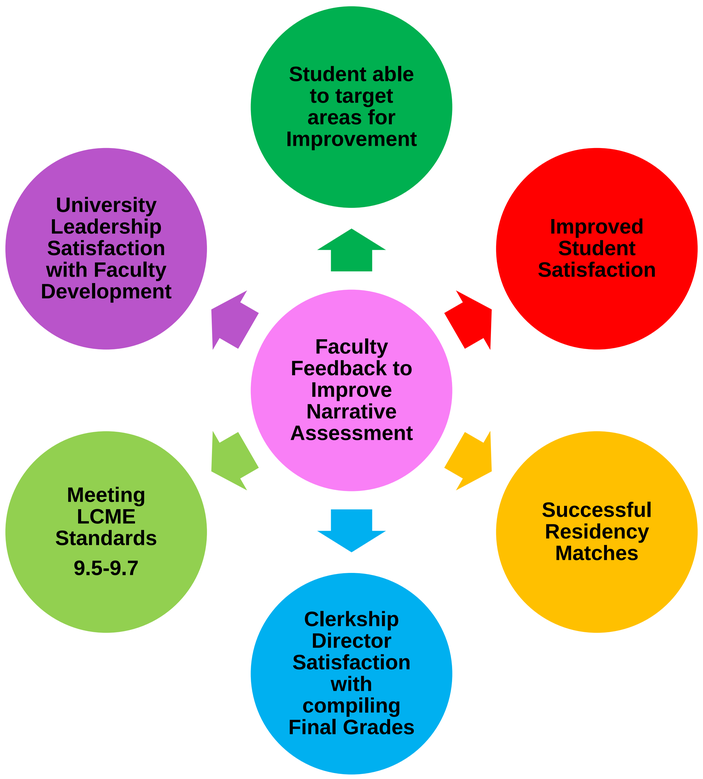
Goal

- To provide faculty development to improve narrative assessment of students
- More accurate assessment of student competency
- Improved clerkship director satisfaction with ability to compile a summary evaluation

Objectives

1. Identify Evaluators in need of feedback.
2. Educate Evaluators on the expectations of quality feedback.
3. Improve the quantity of narrative assessment.
4. Improve the quality of narrative assessment.
5. Provide students with useful formative feedback.
6. Sustain long-lasting improvement in the quality of narrative assessments.

Projected Impact



Next Steps

Methods and Approach

METHODS:

- Develop a grading rubric for the faculty individual evaluations
- Select a pilot group to evaluate.
  - All attending evaluators at two sites
- Staff to gather evaluations and blind the data
- Review blinded evaluations using the grading rubric **prior** to feedback
- Identify faculty to receive in-person feedback
  - The remaining faculty will receive electronic feedback
- Meet with individual faculty members
  - Review grading rubric
  - Review faculty scores
  - Identify areas for improvement
- Staff to gather post feedback evaluations and blind the data
- Review blinded evaluations using the grading rubric **after** feedback

Assessment strategy: compare rubric scores before and after feedback.

Success will be measured by seeing a higher rubric score after feedback.

Short-term and Long-term Outcomes

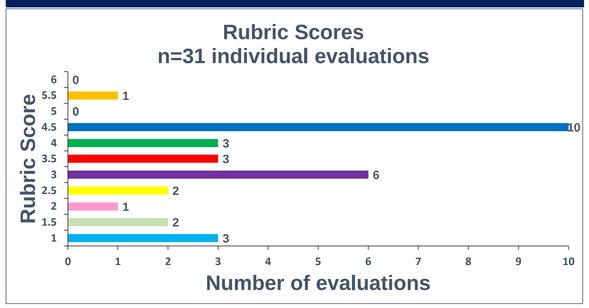
SHORT TERM GOALS IN 2023

	January - March	April - June	July - September	October
Actions	Create rubric	Review blinded evaluations prior to feedback	Meet with faculty identified to receive feedback	Review blinded evaluations after feedback

LONG TERM GOALS IN 2024 and beyond

	January - March	April - June	July - December	January – June 2025
Actions	Identify Site Champions and assistant staff	Train Site Champions and assistant staff	Implement first phase of review and faculty feedback across sites	Review blinded evaluations after feedback Assess effectiveness of program

Early Data



**29 out of 30 evaluations scored below 5 using the rubric, indicating a clear need for faculty development.

Resources Needed:

RESOURCES for pilot:

- Peer mentors to provide feedback on development of rubric
- Supervisor to guide with implementation
- Supervisor to provide funding 6-10 overtime hours for staff
- Staff assistant to gather and blind data
- Time needed to analyze data and provide feedback to faculty

Downstream **RESOURCES** for implementation at all sites:

- Identification and training of Site champions
- Identification and training of Site support staff
- Time for training

Challenges

Time and Space

- Coordination of time with faculty members receiving in-person feedback
- Physical separation of the faculty geographically
- In person feedback sessions preferable

Mission

- Receptiveness of faculty to receiving feedback
- Receptiveness to engage Site Champions

Funding

- For ancillary staff to gather and blind evaluations
- For Site Champions to acknowledge the time commitment

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Establishing a Point of Care Ultrasound Program in the Neonatal Intensive Care Unit

Drexel University College of Medicine
FACULTY LAUNCH

Margaret Gilfillan MD
Collaborators/Mentors: Michelle Mejia MD[1], Vilmaris Quinõnes-Cardona MD[1,2], Ryan Desanti DO[3,2], Michael Szatkowski MD[1,2], Dennis Wood RDMS RDCS[4], Alison Carey MD[1,2]
Affiliations: [1]Division of Neonatology, St Christopher's Hospital for Children, [2]Department of Pediatrics, Drexel University College of Medicine, [3]Division of Pediatric Critical Care, St Christopher's Hospital for Children, [4]Division of Obstetrics and Gynecology, Thomas Jefferson University Hospital

Introduction

- Point of Care Ultrasound (POCUS) is an ultrasound (US) exam performed at the bedside by a non-radiology and non-cardiology trained provider
- Exam either guides a procedure or provides focused information to aid in immediate management
- POCUS is well established in multiple adult specialties and is gaining traction in pediatrics
- POCUS is now considered as a key skill in neonatology[1]

Background and Significance

Project offers several leadership opportunities including:

- Experience in curriculum development
- Collaboration with leaders in other divisions
- Collaboration with peers and experts in other institutions
- A unique shared learning experience with the fellows and faculty colleagues

A Neonatal POCUS program offers our institution:

- Parity with other fellowship programs with POCUS training
- Cost-savings – reduced X-ray verification, targeted use of therapies – i.e diuretics for pulmonary edema
- Movement towards recognized best practices – i.e US guided PICC placement
- Enhancement of unit QI initiatives: CLABSI prevention, osteopenia reduction etc.
- Documenting our experience will contribute to shared knowledge in POCUS education

Goal

- Develop a curriculum in neonatal POCUS
- Contribute to the development of a hospital-wide POCUS committee
- Personally acquire the US skills and competencies necessary to advance the project in my Division

Objectives

6 months:

- Establish a schedule for fellows to receive training with an expert instructor ☑
- Ensure basic understanding of machine controls, probe orientation, safe care of equipment etc ☑
- Establish system for logging exams ☑
- Learn how to find the tip of central lines using US
- Encourage curiosity amongst all team members – reduce hesitancy to practice skills
- Take part in discussions re: formation of hospital POCUS committee

12-18 months

- Ensure all fellows and faculty can verify central line placement with US
- US verification in PICC/UVC placement algorithm
- System for expert review of NICU POCUS images
- POCUS incorporated into NICU QI
- At least 2 faculty members credentialled in POCUS, US guided IV and US guided PICC placement
- Emerging skills in lung US assessment

2-3 years

- 3 faculty members able to teach basic POCUS skills
- Lung US incorporated in BPD management
- Develop skills in targeted hemodynamic assessment
- Work with Dr Szatkowski to build a targeted hemodynamics training program

Methods and Approach

Equipment

- Sonosite® portable US machine ☑
- Considering grant application to purchase US simulation tools

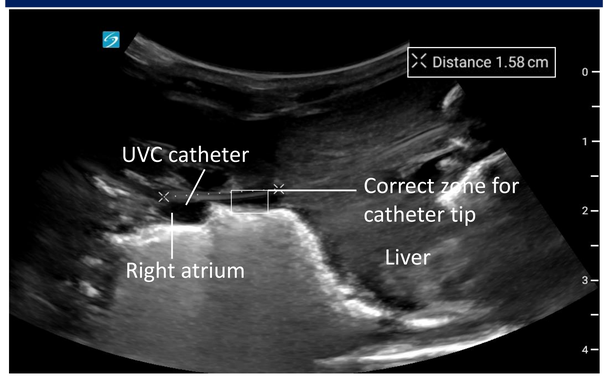
Human resources

- Weekly sessions with an expert sonographer ☑
- Engagement with radiology/cardiology experts for quality control

Educational materials/Assessment Tools

- Online survey -log use of US for line verification ☑
- CHOP bedside US course (Will attend Nov 2023)
- Utilize AAP/ONTPD resources re POCUS curriculum development ☑

Short Term and Long Term Outcomes



Short term

- Image obtained after echo report noted tip of UVC mal-positioned in <1000g infant
- UVC tip located in RA, distance for adjustment measured and line retracted under continuous US visualization
- All Fellows/Faculty need to develop competence in visualizing lines in SVC/IVC
- Reduce No. of X-rays needed for verification
- Reduce inadvertent loss of central location

Long term

- Develop skills in US guided IV and arterial access
- Reduce No. of line attempts
- Increase success of arterial line placement
- Develop skills in lung US assessment – use to target management of neonatal lung disease

Challenges

- Learning a new set of skills in a short time frame requires dedicated practice
- Disseminating information and maintaining quality among fellows and faculty requires effective communication
- Creating support and buy-in from all team members requires ongoing communication, transparency, co-operation – sharing wins is key!
- Creating a unified set of standards amongst different divisions is critical
- Requires collaboration, open communication, sharing skills, resources and experience

Evaluation and Assessment Strategies

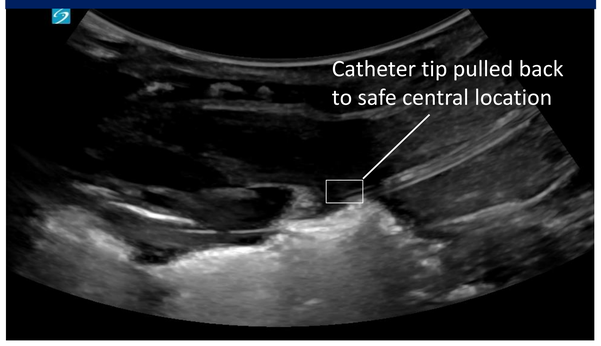
Currently using online survey to track:

- Use of POCUS during central line placement
- Barriers to use of POCUS (i.e lack of skilled assistant)
- Number of attempts made to obtain access
- Number of X-rays used to verify line position

Other assessment strategies

- Group and individual procedure logs
- Structured evaluation of US interpretation
- Structured assessment of US skills at the bedside
- Expert review of images by POCUS credentialled colleagues and/or Radiology/Cardiology providers

Discussion and Impact



- Acquisition of very simple POCUS skills can have a positive impact on patient care
- Reduction of X-ray imaging and number of procedural attempts[2]
- Attainment of advanced skills can aid in complex decision making[3,4]
- Sharing information between divisions and institutions will help optimize training and applications of POCUS

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Building a Transitional Clinic in Collegeville

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Abstract

To create a transitional outpatient clinic that provides outpatient psychiatric care for patients discharged after receiving psychiatric treatment at Phoenixville Hospital in non-traditional settings including the med-surge floors as well as overnight in the Emergency Department. Phoenixville Hospital does not have an inpatient psychiatric unit. Once patients are connected to a traditional outpatient setting, we would discharge patients from our transitional clinic

Background and Significance

1. With the closing of Brandywine Hospital, there are no longer any inpatient psychiatric beds in Chester County
2. Patients often wait days in the Emergency Department or get admitted medically
3. As a result of the delays in placement created by this closing, Chester County Department of MH/IDD changed their procedures
4. In the past, in Chester County, the time on the 120 hour involuntary inpatient psychiatric hold (302) did not start running until patients were placed in a psychiatric facility. Within months of the closing of Brandywine Hospital, Chester County's interpretation of the law changed. The time on the 302 starts to run from the moment patients arrived at any facility
5. We began changing our practices. Once we determine patients need inpatient treatment, we provide intensive psychopharmacological management immediately. We have also been conducting mental health court inside the Emergency Department as well as on the med surge floors at Phoenixville Hospital
6. Now, patients are often stabilized before ever being admitted psychiatrically which creates problems with disposition
7. Patients discharged from psychiatric facilities get priority intake appointments in the community. This puts our patients at a disadvantage
8. Length of stay and bed flow are adversely affected as patients sit on med surge floors or in ED because no safe discharge disposition can be obtained for them
9. Most Medicaid insurances require outpatient psychiatric follow up within 7 days of discharge from an inpatient psychiatric facility. This includes psychiatric treatment provided on a court commitment not limited to an inpatient psychiatric unit

Goal

To create an accessible outpatient program for patients who had been seen on consults and in the ED at Phoenixville Hospital

Second phase: to create a quality outpatient clinic that provides specialty services such as outpatient ECT and management of treatment resistant depression

Objectives

1. Obtain approval from my supervisor with buy in from senior leadership (September 2022)
   a. Show leadership the advantages of providing outpatient treatment to these patients, even if unable to directly bill for services, at least initially (September, 2022)
1. Find appropriate location (February, 2023) - Collegeville
2. Obtain necessary support materials and staff such as EPIC onboarding and Tower Health access center (March, 2023)
3. Begin appointments (April, 2023)
4. Fine tune screening process (May – June, 2023)
5. Outpatient ECT (summer, 2023)
6. Expansion planning (second phase, fall, 2023)
   a. Onboarding with insurances
   b. Expanding services and increasing providers
   c. Possible resident/medical student involvement

Methods and Approach

1. We wanted to create outpatient services in Medical Office Building at Phoenixville Hospital
2. After discussion with service line director, it was decided that the location of the outpatient services would be at an established outpatient internal medicine facility in Collegeville. This site was chosen instead because of a lack of administrative assistant support at Medical Office Building and licensing concerns
3. We visited the site on 3/10/2023 along with the service line business manager to work out some details regarding office space, furniture, and scheduling
4. We initially decided to make use of less than preferred front office space with long term plan to find more suitable space within this location
5. We identified staff member who would be scheduling intakes
6. We decided on screening criteria to include: ED/inpatient consult follow ups from Phoenixville, post ECT patients at Pottstown, bariatric evaluations
7. Though we expanded our admissions past the original plan, we were careful to have strict screening protocols
   a. Location is not safe for potentially dangerous patients
   b. Providers are only providing services one afternoon every other week
8. We obtained Resource Access Request for EPIC outpatient services
9. A template was created that would generally encompass Medicaid requirements though we are not yet credentialed.
   a. Initially and annually, all patients need:
      i. Metabolic screening (lipids, A1c, TSH)
      ii. Suicide risk assessment
      iii. Review of Systems
   b. At every visit, patients need:
      i. Height and weight
      ii. Vital signs
      iii. Mental status exam
10. My first day was 4/27/2023 with some computer glitches and a full show rate!

Short Term and Long Term Outcomes

1. Decrease length of stay for psychiatric patients at Phoenixville Hospital
   a. Improve bed flow through the emergency department and decrease the number of high census alert days inside the hospital in general
   b. Decrease hours for one to one staff sitting with psych patients as med surge floors are not secured
2. Decrease readmission rates for psychiatric patients at Phoenixville Hospital
3. Decreased interruption of treatment/improved consistency with compliance of psychiatric medications

Long term:
Decreased inpatient psychiatric hospitalization rates within a 10 mile radius of the clinic
ds meeting your objectives?
Focus on the objective(s) you plan to achieve during your fellowship

Challenges

1. While Phoenixville Hospital is inside Chester County, Collegeville is in Montgomery County (though they are close). This can present challenges with Medicaid product health insurance which follows county lines on behavioral health
2. Inadequate support staff for outpatient communications when we are not in the office
   a. Communications are typically for med refills and patients will be instructed to make use of the patient portal
3. Space and furnishings already sub-optimal. Capital for improvement?
4. How to get the word out that such services exist without being inundated with inappropriate patient pool

Evaluation and Assessment Strategies

1. 30 day readmission rates for patients discharged from Phoenixville Hospital
1. Length of stay for patients at Phoenixville Hospital who present with psychiatric principal problem
2. Amount of time psychiatric patients spend in the ED
3. Unpaid hospital days
4. Number of psychiatric presentations to the Emergency Department to both Phoenixville and Pottstown Hospitals
5. Outpatient ECT: once it is developed, we will monitor length of stay of inpatients who initiated ECT at Pottstown Hospital

Discussion and Impact

1. This project was enormously educational
2. What started off as a transitional clinic is evolving into a full clinic
   a. Tightrope between maintaining vision and being flexible with final product
3. Can't predict what will lead to delays and what can happen relatively quickly
   a. Obtaining Resource Access Request for outpatient EPIC access was relatively smooth
   b. Negotiating time for support staff and scheduling was more involved than expected
   c. Obtaining furniture was SIGNIFICANTLY more complicated than expected
4. Capital for even relatively small expenditures (such as office furnishings) requires negotiation since it is not officially in any budget

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Development of a Planning Model to Unify Drexel University College of Medicine Campuses in the Execution of the Clerkship Fundamentals Course

Renee Kottenhahn, MD, Karen Restifo, MD, JD & Dana Farabaugh, MD

Drexel University College of Medicine

Background and Significance

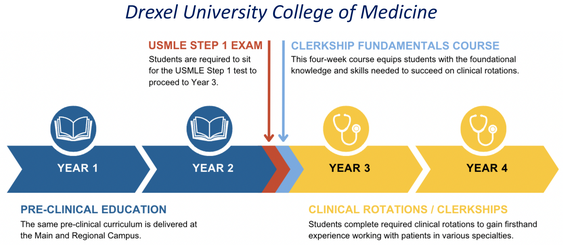
Drexel University College of Medicine (DUCOM) employs a distributed medical education model, with seven "two-year" clinical regional medical campuses across the United States. In 2021, DUCOM added a "four-year" regional campus under the same Liaison Committee on Medical Education (LCME) accreditation umbrella. The new regional campus offers the same curriculum as the main campus and must maintain comparability. The inaugural class of students has now completed the first two years of study and is entering the clinical phase of medical school education. As part of this transition, the Clerkship Fundamentals (CF) course was offered for the first time at the regional campus (April 24 - May 17, 2023).

Clerkship Fundamentals is an established course at DUCOM, designed to provide critical knowledge and skills needed for students to successfully navigate the clinical phase transition. The dynamic four-week course includes individually paced online modules, scheduled practice with standardized patients, as well as live lectures and in-person small and large group sessions facilitated by faculty on campus. All of the elements of the course are delivered at both campuses but without any requirement to be delivered synchronously.

Launching the CF Course in 2023 at the new regional campus with fidelity required attention to the existing curriculum infrastructure and an understanding of the management strategies used by the faculty at the main campus. This course is considered a "year three course" and it is DUCOM's policy that all students MUST sit for Step 1 of the United States Medical Licensing Exam (USMLE) in order to progress to year three of the curriculum. Course management necessitated that accommodation be made for student excusals (missed days) as well as course deferrals (course postponement) which may occur due to either unforeseen circumstances and/or inability to sit for the Step 1 exam in the scheduled time frame. Identifying strategies for resource sharing between campuses (inclusive of faculty workforce, equipment and limited capacity contracted resources) was also a major part of course delivery.

Medical School Progression

Drexel University College of Medicine



Objectives

Deliver the first Clerkship Fundamentals Course at the Regional Campus

Primary objectives:

- Identify course components, sequence limitations & resource requirements for the established curriculum
- Develop a scheduling strategy to facilitate resource sharing between campuses (e.g. expensive training equipment, contracted resources with limited capacity)
- Incorporate flexibility of course delivery to accommodate students on track to complete course but who need excusals
- Create a collaborative workflow to mitigate scheduling stressors and manage student expectations related to course deferrals

Secondary objectives:

- Identify faculty to deliver "live" lectures and education sessions at the regional campus
- Leverage the unique characteristics and capacities of the regional campus to support student development and that of the broader teaching community

Key Factors for Regional Course Planning & Introduction

SWOT Analysis

Strengths

- Established curriculum with experienced faculty presenters at the main campus willing to support course
- Many faculty counterparts already in place at regional campus to help deliver content (e.g. Academic Support, Student Affairs Dean).
- Possibilities to engage academic faculty from diverse specialties at regional hospital

Weaknesses

- Fewer Standardized Patients (SPs) at the regional campus (compared to main campus)
- Academic faculty have commitments limiting their availability for participating in teaching events
- BLS and task training mannequins are costly and need to be shared across campuses

Opportunities

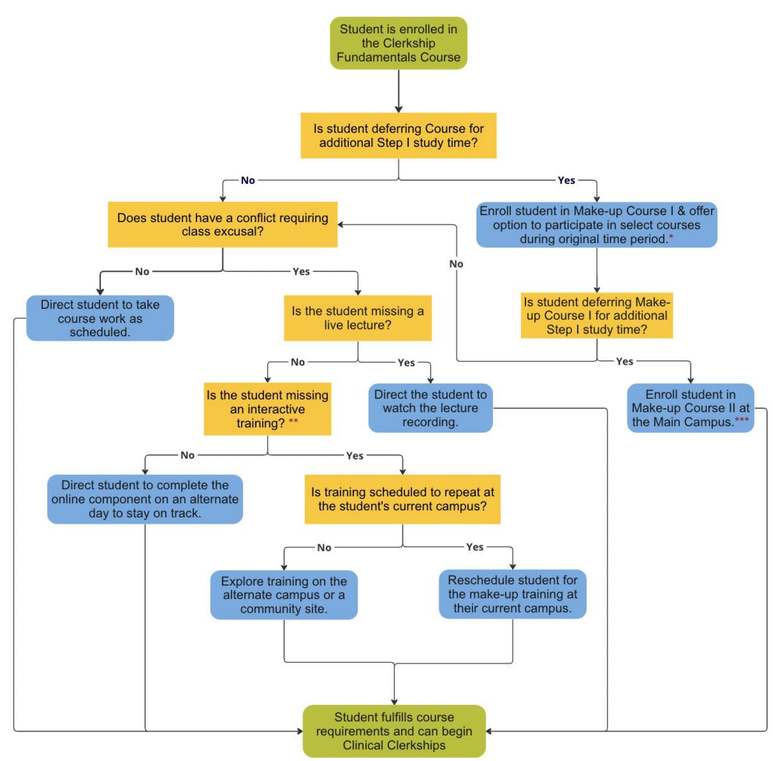
- Course provides faculty development and opportunities for inter-professional collaboration (e.g. OR nurse participation in surgical scrub education)
- ~1 hour driving time between campuses is not prohibitive for students or faculty to travel bi-directionally

Threats

- Key faculty may be needed to deliver content at both campuses making scheduling of "live sessions" difficult
- There may be difficulty accomplishing "make-up" sessions (for students on track for course completion) due to time constraints and availability of students / SPs / faculty facilitators / special equipment
- Course "deferrals" create stressors including:
  - A demand for course to be repeated despite small numbers of participants
  - Difficulty in course coordination due to unpredicted departures
  - Expectation management of students eager to plan for success

Clerkship Fundamentals Course Management

Collaboratively Accommodating Missed Classwork and Course Deferrals Between Campuses



* Students deferring course may opt to participate in select elements chosen by the Course Directors (i.e., those that require special tools, staff, or are contracted with outside agencies).
** Interactive trainings include standardized patient sessions, workshops, faculty facilitated small groups, and demonstrations.
*** Due to limited demand and need for cost containment, the Regional Campus will only offer one make-up course. Students will be advised of need to travel to Main Campus for additional make-up work.

Methods & Approach

- Stakeholder meetings/communication: Associate Dean of Clinical Education, Regional Campus Vice Dean, Associate Dean of Assessment & Evaluation, Simulation Directors, Student Affairs Deans and Clerkship Coordinators
- SWOT analysis & Plan-Do-Study-Act (PDSA) cycle
- Student Surveys (Existent student course surveys can be stratified to assess student satisfaction and comparability between campuses longitudinally).

Outcomes

The Clerkship Fundamentals (CF) Course was successfully executed for the first time at the Regional Campus (4/24/23 – 5/17/23)

- A Collaborative Course Management Strategy was created (see diagram)
- Course completion:
  33 students from the regional campus have now completed the course and moved forward to clerkships at the regional hospital affiliate
- Course deferrals:
  7 students are scheduled for Make-up Course 1 at the regional campus
  3 Regional students are scheduled for Make-up Course 2 at the main campus
- Course Faculty:
  15 faculty traveled from the main campus to the regional campus to lecture
  3 faculty from the main campus participated in hybrid sessions by zoom
  9 regional campus faculty lectured or facilitated group teaching sessions
  11 faculty from the regional hospital were recruited for course delivery
  2 OR nurses were identified as future collaborators
- Events unique to the regional medical campus:
  May 5,2023, a faculty development event was scheduled synchronously with CF coursework to promote interaction between faculty (from both campuses) and physicians from the regional hospital network.

  May 15, 2023 "Transition to Clinician Celebratory March": Students completing the course celebrated this milestone by walking from the Medical school to be welcomed at the Regional Hospital Campus

Lessons Learned and Path Forward

- It is advantageous to plan interactive sessions to repeat (scheduling a smaller number of students at a time) as this allows opportunities to reschedule students who are formally excused from class. Sessions should be planned for different weeks (rather than within the same week) to optimize the success of this strategy.
- Newly recruited faculty from the regional hospital expressed interest in ongoing participation. Optimal days for scheduling teaching sessions (and lead time for requests) were identified.
- Late notice of class deferrals caused staff to repeatedly revise student schedules. To avoid this, it is advisable to populate templates for individual student schedules close to the first day of class.
- Limited participation in select course elements by students deferring full participation for additional Step 1 preparation needs to be better understood as an educational strategy. Ideally, deferrals can be prevented.
- Ongoing PDSA cycles will help refine course execution.

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DREXEL UNIVERSITY College of Medicine

FACULTY LAUNCH

A Path Forward-A Template for Multidisciplinary Programs(MDP) as Part of Cardiac Service Line

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Heart Center for Children, St Christopher's Hospital for Children and Drexel University

Abstract

- Congenital heart disease is the most common birth defect requiring hospitalization. Advances in management strategies have resulted in markedly increased life expectancy for children with many complex cardiac diagnoses (e.g., single ventricle physiology).
- Survivors are at risk for downstream consequences of changes in circulation that may affect many organ systems. In addition, with increased longevity, many primary non cardiac diagnoses have cardiac consequences, that also require ongoing cardiac diagnostic and therapeutic care.
- The current fee for service subspeciality care model does not serve these individuals to provide the multidisciplinary care needed for complex quaternary level conditions. Thus, an integrated practice unit (IPU) care model has been proposed to address the complexity of care.
- I aim to create a template for multidisciplinary programs (MDP) using the IPU model for patients with complex conditions .

Background and Significance

- Conceptually, IPUs colocate clinicians, support specialists, and requisite care delivery services to effectively manage the end-to-end spectrum of medical conditions and garner large volumes by becoming a de facto center of excellence and multidisciplinary competency for patients with complex quaternary diagnosis.
- Interacting with many facets of institutional leadership and section leaders is required to successfully plan and execute an MDP.
- If successful, this will be a template which can be replicated across pediatric subspecialities to optimize patient care. It will also allow our institution to provide guideline driven care, similar to that provided in prominent Childrens Hospitals across the country.

Objectives

- Identify cardiac and primarily noncardiac complex conditions which will benefit from MDPs with a cardiology component We have already identified cardio oncology and neuromuscular disease and are actively working on MDP clinics.
- Identify team members needed for optimal management of each quaternary diagnosis.
- Identify technological and financial barriers.
- With each program identify outcomes, quality metrics and performance indicators including national registries.
- Integrate education, research, and quality assessment infrastructure into the programs.

SWOT Analysis

Strengths

- Existing patient population with quaternary diagnosis
- Comprehensive Cardiac Service Line
- Collaborations :Full spectrum of pediatric subspecialities in a Childrens Hospital.

Weaknesses:

- Insurance and billing challenges to maintain financial viability.
- Reliance on internal and external referrals:
- Potential for resource constraints: The clinic may face challenges in terms of the availability of specialized staff, equipment, or infrastructure, leading to longer wait times or limited capacity.
- Need for adult medical partners.

Opportunities:

- Increasing demand: As outcomes improve across the spectrum on diagnosis the potential patient population is increasing.
- Technological advancements: The clinic can leverage emerging technologies, such as telemedicine and remote monitoring, to reach patients in remote areas or improve post-treatment follow-up care.
- Research and innovation: Major opportunity to collect data for research .

Threats:

- Competition from other health care systems.
- Changes in health care policies and regulations: Regulatory changes or reimbursement policies could impact the financial viability of the clinic and influence patient access to specialized care.
- Technological challenges: Integrating and maintaining advanced medical technology can be costly and may require regular updates or training, posing potential challenges.

Short Term and Long Term Outcomes

Short Term Objectives
Identify patient population We have already identified our patients with Single Ventricle Physiology who will attend the MDP. We are in conversation with oncology to identify patients for the cardio oncology clinic.
Identify the collaborators for MDP clinics- Have reached out to other subspecialists about participation.
Financial issues- Working with the billing and coding teams to facilitate physician education to optimize revenue cycle .
Telemedicine options for services not available like psychiatry.

Long term benchmarks
Patient enrollment in MDP
Increasing the number of MDP both cardiac based and with cardiac participation in other quaternary diagnosis
Research and publications
Diagnosis specific quality indicators- such as compliance with guideline directed care

Challenges

•**Coordination and Integration:** MDP clinics typically involve multiple medical specialties and healthcare professionals. Coordinating and integrating different departments, specialties, and personnel can be challenging. Ensuring effective communication, collaboration, and information sharing among various stakeholders is crucial for smooth operations

•**Leadership and Governance**: Establishing a multispecialty clinic requires strong leadership and effective governance. Determining decision-making structures, defining roles and responsibilities, and managing conflicts between different specialties can be demanding.

•**Facility and Space Planning:** Require a significant amount of space to accommodate various medical specialties and their specific needs. Designing and configuring the facility to optimize patient flow, accessibility, and privacy while considering the requirements of different specialties is a logistical challenge. Combination of hospital and outpatient services makes the physical space even more of an issue

•**Financial Considerations**: Establishing and operating a multispecialty clinic can involve substantial financial investment. Developing a sound financial plan and exploring potential funding sources are crucial for sustainability. We are currently exploring the financial and billing issues

•**Cultural and Professional Differences**: . Building a shared vision, fostering a culture of teamwork, and promoting effective communication among specialties are essential

•**Information Technology and Data Management**: Multispecialty clinics rely heavily on information technology systems for electronic health records (EHRs), appointment scheduling, billing, and data management. Implementing and integrating these systems across different specialties can be complex and require careful planning, training, and technical support to ensure interoperability and data security. At this point we are mining data to identify our patients.

•**Patient Experience and Satisfaction**: Coordinating care across multiple specialties can impact the patient experience. Ensuring seamless transitions, minimizing wait times, and providing clear communication among different healthcare providers can be challenging. We anticipate challenges with our call center.

•**Legal and Regulatory Compliance**: Establishing a multispecialty clinic involves navigating complex legal and regulatory frameworks. Licensing, credentialing, compliance with healthcare regulations, and privacy laws require careful attention.

Evaluation and Assessment Strategies

General Strategies

- **Patient satisfaction**: Use standard questionnaires like PSG-12 or clinic specific instruments.
- **Wait times and access to care**: Tracking these metrics can help identify bottlenecks and areas for improvement in delivering timely care.
- **Collaboration and teamwork**: Measuring collaboration and teamwork through staff surveys, team performance evaluations, and assessments of interdisciplinary communication and coordination.
- **Referral patterns:** Analyzing referral patterns can provide insights into how well the clinic is regarded by other healthcare providers in the area.
- **Financial performance**: Key financial measures include revenue generation, profitability, cost-effectiveness, and return on investment including downstream revenue generation. Monitoring these metrics can help ensure the clinic's financial viability and identify areas for cost optimization.
- **Staff satisfaction and retention**:. Staff surveys, turnover rates, and exit interviews can provide insights into the clinic's ability to attract and retain top talent.
- **Research Publications and Grants.**

Clinic Specific

- Depending on the disease condition specific quality parameters outcome indices are available.

Discussion and Impact

- The quadruple aim of modern health care is to improve costs, health outcomes, patient and provider experience.
- This is difficult under the current fragmented structure of our medical system when providing care to patients with complex medical conditions.
- MDPs based on the IPU structure have increasingly been used in many hospital systems to improve the quality of care and the experience.
- To achieve success, they need a strong templates with attention paid to scheduling standardized outcome measures and attention to improving provider collaboration.
- Each program will need a defined goal and mission aligned with institutional strategy and require corporate support for clinical and administrative resources. These include integrated database IT infrastructure and metrics to measure health care delivery processes and outcomes. We need to incorporate education and marketing directed towards health care personnel.
- In short this is a high risk and high reward endeavor

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DREXEL UNIVERSITY College of Medicine

FACULTY LAUNCH

Dedicated Research Space for ECMO will Improve Research Quality and Scholarly Productivity

Ogechukwu Menkiti, MD[1,2,3], Swosti Joshi, MD[1,2,3] , Vilmaris Quinones Cardona, MD[1,2,3], Renee Turchi MD [1,3]

St. Christopher's Hospital for Children[1], Philadelphia, PA , St. Christopher's Hospital for Children ECMO Team [2], Drexel University College of Medicine[3] Philadelphia, PA [3]

Abstract

- The Extracorporeal Membrane Oxygenation (ECMO) program at St. Christopher's Hospital for Children contributes to data on ECMO therapy, its complications, management options and pharmacokinetic (PK) studies.
- Initiation of pediatric ECMO is complicated by clinical events purported to be driven by changes in the inflammatory milieu of these patients.
- Our team successfully developed a pilot study to describe the inflammatory changes that occur following ECMO initiation.
- Barriers for these research activities include lack of resources and/or infrastructure for translational research at St Christopher's Hospital.
- This project focuses on creating a dedicated space for ECMO research and resource acquisition for successful research initiation and completion.
- Successful establishment of an ECMO lab will improve quality and scholarly productivity of research endeavors by the St Christopher's Hospital for Children ECMO team.

Background and Significance

- Our current ECMO team research endeavors include protein analysis, PK studies, QI initiatives and case reports.
- Research productivity and stability is limited by a lack of a dedicated space for sample processing, equipment storage and basic resources.
- Improved team morale by eliminating the anxiety, stress and sense of disorganization associated with conveying sample tubes, equipment and materials back and forth during sample acquisition and processing will boost productivity, time efficiency and teamwork effectiveness.
- Establishing a successful research lab will provide trainees and medical students as well as DUCOM researchers an opportunity to collaborate with the ECMO team on new projects.

Goal

- To secure a dedicated research space for ECMO team research, funding for laboratory space set up and procurement of basic equipment.
- To increase visibility of St Christopher's Hospital for Children ECMO team research endeavors at local level in SCHC and DUCOM.

Objectives

1. Identify strategic space for research within St Christopher's for Children Hospital, preferably in existing laboratory area to reduce cost.
2. Identify key stakeholders and procedures for requesting/securing dedicated space with project justification.
3. Identify minimum resources and equipment required for success, with clear plan for expansion in the future. Identify existing equipment and resources available at St Chris versus that which is unavailable with estimated costs for procurement.
4. Arrange meetings with key stakeholders at DUCOM and SCHC to discuss potential funding and resources support.
5. Increase visibility of ECMO team and research at Drexel (research committee) and St Christopher's Hospital for Children key stakeholders.
6. Identify seminars and workshops for grant and scientific writing.

Methods and Approach

- Networking campaign including discussions with Drexel Immunology Department. Increase visibility of ECMO and awareness of ongoing scholarly activities.
- Schedule appropriate meetings with Pediatrics Department Chief, chief operational officer and other key stakeholders at St Christopher's Hospital for Children, to identify space and the necessary funding for project execution.
- Identify intramural and/extramural funding opportunities including St Christopher's Hospital and DUCOM.
- Develop appropriate budget with initial cost, develop budget for current study and secure funding grants.

Resources Available

- Continued team effort and individual sacrifice for research endeavors and fund allocation for equipment acquisition.
- Collaboration with Dr Carey's Laboratory at Drexel to utilize their laboratory equipment and expertise for protein analysis at no added costs.

Short Term and Long-Term Outcomes

- Define minimum resources and financial support required to initiate centralized research activities for St Christopher's ECMO team.
- Identify equipment available at St Christopher's Hospital located in common areas or those which can be shared to minimize start up costs.
- Secure adequate space in a strategic location that would facilitate cost savings through collaborations and joint equipment use. Prioritize areas that require less funds for transformation.
- Create opportunity for trainees and medical students to engage in research development and scholarly activities.
- Enhance regional and national presence by presenting abstracts and scholarly publications to further sponsor ongoing studies.
- Professional development via seminars and workshops for grant and scientific writing .

Evaluation and Assessment Strategies

- Evaluation will be process-based initially then transform to goals-based.
- Assessment strategies will center on key objectives critical for success which include:
  - Identification and engagement of key stakeholders
  - Identification and/or securing suitable space
  - Networking and other activities aimed at increasing team activities and visibility
  - Encouraging trainee involvement in research activities
- Goals oriented results will include:
  - Securing physical space for ECMO research and basic equipment for sample collection, processing, and storage.
- Securing intramural then extramural funding for research activities.

Discussion and Impact

- A dedicated ECMO lab space has already impacted research activities and team morale positively. The availability of storage space, basic equipment and workspace has enhanced scholarly productivity.
- The enhanced visibility has attracted three trainees who are now involved in 1 trainee-initiated study and two new protocols. We are looking forward to interview medical students for mentoring and research exposure.

Restructuring the medical school admissions process: Transitioning to multiple mini-interviews (MMI) as part of a holistic review process

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Abstract

The mission of Drexel University College of Medicine (DUCOM) states; "Drexel University College of Medicine excels and innovates in education, research, and delivery of compassionate care in our culture of diversity, spirited inquiry, collaboration, and opportunity". In line with our mission and from recommendations by the Association of American Medical Colleges (AAMC), DUCOM utilizes a holistic approach to assessment of applicants for admission into the program. Part of this process includes a traditional faculty interview. These less structured interviews do not necessarily help to determine specific applicant attributes and also may be more prone to bias in the unstructured questions being asked, which may lead to bias in scoring. The use of structured questions, with specific rubrics for scoring, are thought to provide better interrater reliability and also be less prone to bias. One mechanism being utilized to incorporate structured questions is the MMI, or multiple mini-interviews. The MMI consists of multiple structured questions being asked independently by multiple interviewers, i.e. one question per interviewer. The scores received for each question are averaged together to obtain a composite interview score for each applicant. This allows for any potential bias to be averaged out, and thereby minimize the impact of bias from one interviewer. Additionally, the incorporation of effective training of interviewers prior to any interview has been shown to also help minimize bias. These trainings would surround the review of the questions being asked, the rubrics for scoring, the scoring process, as well as strategies for avoiding bias. There are currently 47 allopathic medical schools in the United States (out of 155 allopathic schools) that utilize the MMI as part of their process. This project will review the feasibility and benefit of converting the traditional faculty interview, currently part of our process, to the MMI. In addition, work will be completed to develop questions and rubrics that are in line with the overall mission of our institution.

Background and Significance

The use of unstructured, one-on-one interviews as a component of the application process can be problematic because this style of interview is prone to implicit bias. Bias in this setting is often unintentional; however, the issue of objectivity remains. Bias in the medical school application process can have major impact on diversity in the medical school, thereby impacting diversity in the medical field. It is important to ensure a holistic review process in all aspects of the application, including utilizing mechanisms to mitigate bias in the interview process **(Figure 1)**.

The multiple mini-interview (MMI) is an interview style that was developed by McMaster University in the late 1990s. This interview style consists of 6-10 different interview stations that candidates rotate through in a short period of time (usually approximately 10 minutes or less). These mini-interview stations each address a specific competency that the program wishes to evaluate candidates on, which are embedded in various scenarios or prompts. This style of interview has increased in popularity with various health professions programs and schools in the fields of medicine, nursing, and pharmacy. The structured nature of the MMI format along with the standard rubrics for scoring help to minimize the effects of bias on the interview process.

An important component of the MMI process is the development of questions that align with the core competencies of the institution. Individual MMI questions should focus on one specific competency the Admissions Committee wishes to further explore during interviews. The competencies assessed should follow the 15 Core Competencies for Entering Medical Students as defined by the American Association of Medical Colleges (AAMC). The AAMC, which is the accrediting body for allopathic medical schools in the United States, has identified and developed a list of fifteen (15) core competencies that all entering medical students should possess. They break down these competencies into four groups: Interpersonal, Intrapersonal, Thinking and Reasoning, and Science. These 15 core competencies are: Service orientation, Social skills, Cultural competence, Teamwork, Oral communication, Ethical responsibility to self and others, Reliability and dependability, Resilience and adaptability, Capacity for improvement, Critical thinking, Quantitative reasoning, Scientific inquiry, Written communication, Living systems, and Human behavior **(Figure 2).**

Assessing mission-driven personal attributes for development of MMI questions

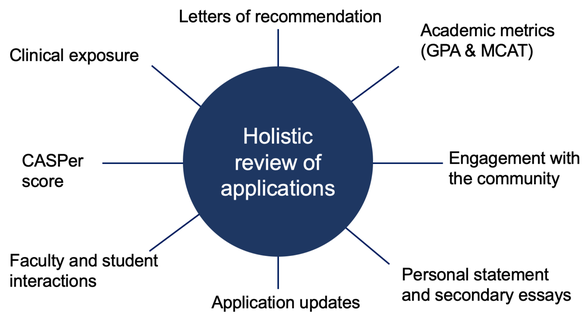

Figure 1: Components utilized by Drexel University College of Medicine for holistic assessment of medical student applications. Holistic review aims to assess individuals beyond their academic achievements or work experience and takes into account their unique personal qualities and attributes. This figure demonstrates the multitude of components, including personal characteristics alongside traditional metrics, such as academic performance or work experience, utilized to obtain a holistic understanding of an individual's potential. By considering these multifaceted attributes, decision-makers can identify candidates who possess not only the requisite skills and knowledge but also the personal qualities that contribute to a thriving and inclusive environment.

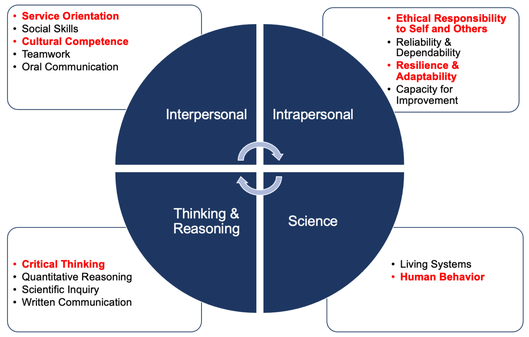

Figure 2: Assessment of the AAMC Core Competencies for Entering Medical Students. The AAMC has developed 15 Core Competencies for Entering Medical Students that has been endorsed by the AAMC Group on Student Affairs (GSA) Committee on Admissions (COA). These competencies are broken into four categories: Interpersonal, Intrapersonal, Thinking and Reasoning, and Science. Individual MMI stations should focus on one specific competency the Admissions Committee wishes to further explore during interviews. These competencies should follow the 15 Core Competencies for Entering Medical Students as defined by the AAMC. Highlighted in red are the core values being investigated currently for MMI questions based on their alignment with the DUCOM mission.

Analysis of comparable medical schools utilizing MMI as a component of admissions

School Name	Mission	Interview Style (MMI or Hybrid)	State	Campus Type	# of Campuses	Class Size	Class GPA Avg.	Class BCPM Avg.	Class MCAT Avg.	% In State	% Female	% Male	% URM	Notes
Geisinger Commonwealth SOM	Geisinger Commonwealth School of Medicine educates aspiring physicians and scientists to serve society using a community-based, patient-centered, interprofessional and evidence-based model of education that is committed to inclusion, promotes discovery and utilizes innovative techniques.	MMI	PA	Urban	6	111	3.75	NA	511	63.90%	51.4%	46.6%	17.1%	Main campus in Scranton (PA) and 5 regional campuses
Michigan State Univ. College of Human Medicine	Michigan State University College of Human Medicine is committed to educating exemplary physicians and scholars, discovering and disseminating new knowledge, and providing service at home and abroad. We enhance our communities by providing outstanding primary and specialty care, promoting the dignity and inclusion of all people, and responding to the needs of the medically underserved.	MMI	MI	Urban	8	190	3.75	3.68	511	85%	58%	41%	20.5%	8 total campuses: 2 four-year campuses and 8 two-year clerkship campuses
Rutgers Robert Wood Johnson Medical School	Rutgers - Robert Wood Johnson Medical School (RWJMS) is dedicated to transforming health care for New Jersey and the nation through innovation and excellence in education, discovery, patient and family-centered care and addressing the health of our diverse community.	MMI	NJ	Suburban	2	165	3.7	NA	512	NA	60.6%	39.4%	27.20%	1 main campus at RWJMS and 1 regional campus in Long Branch (NJ)
Univ. of Cincinnati College of Medicine	We work together in a spirit of collaboration, inclusion, and service: To educate and train the physicians, scientists, and health professionals of tomorrow; To advance knowledge through impactful, innovative research; To improve health and well-being through compassionate, patient-centered care.	MMI	OH	Urban	1	175	3.78	3.73	516	68%	53%	47%	13%	
Univ. of Illinois College of Medicine	To advance health for everyone through outstanding education, research, clinical care, and social responsibility.	Hybrid	IL	Urban	3	282	3.8	NA	513	NA	55.3%	44.6%	37.5	3 campuses: Chicago (180), Peroia (65), and Rockford (55)
Univ. of Minnesota Medical School- Twin Cities	Committed to innovation and diversity, the Medical School educates physicians, scientists, and health professionals; generates knowledge and treatments; and cares for patients and communities with compassion and respect. We value excellence, inclusiveness, collaboration and discovery.	MMI	MN	Urban	2	240	3.7	NA	509	83.30%	55%	45%	19.8%	Campuses in Duluth (65) and Twin Cities (175)
Wayne State Univ.	We will educate a diverse student body in an urban setting and within a culture of inclusion through high-quality education, clinical excellence, pioneering research, local investment in our community, and innovative technology to prepare physician and biomedical scientific leaders to achieve health and wellness for our society.	Hybrid	MI	Urban	1	300	3.83	3.77	513	NA	52%	48%	11.7%	Hybrid component is MMI and individual interview

Table 1: Of the 47 allopathic medical schools utilizing MMI, out of a total of 155 medical schools, initial analysis will be performed looking at 7 comparable medical schools. These schools were selected based on their comparability to Drexel University College of Medicine utilizing characteristics such as size, campus type, and mission.

Goal, Objectives, and Benchmarks

Goal: The goal of this project is to assess the feasibility of conversion to an MMI-based process. Additionally, to design an MMI process that is aligned with our mission for Drexel University College of Medicine.

Objectives: The goal of the project will be assessed by the following three objectives -

1. Assess other institutions that are similar to DUCOM (mission, size, location) that utilize the MMI process.
2. Design a MMI process that aligns with the DUCOM mission of diversity and service. This includes determining the core competencies to be assessed and the design of appropriate MMI questions and rubrics.
3. Develop an appropriate interviewer training process and then pilot the MMI process with the already established special programs utilizing the trained interviewers.

Benchmarks: The following benchmarks serve as guidelines and standards to gauge the effectiveness and quality of the MMI process:

1. Generation of standardized, mission centric scenarios
2. Creation of a structured evaluation criteria/rubric
3. Formation of quality interview raining modules
4. Continued validity and reliability studies
5. Benchmarking against peer institutions

Discussion and Impact

The use of the multiple mini-interview (MMI) process in medical school admissions can yield several positive outcomes. This interview format was designed to assess applicants' non-cognitive skills, such as communication, critical thinking, ethical decision-making, and professionalism. The following are some of the outcomes observed with the implementation of the MMI process: Enhanced Assessment of Non-Cognitive Skills, Fairness and Reduced Bias, Predictive Validity, Candidate Differentiation, Enhanced Applicant Experience, and Alignment with Desired Program Outcomes.

This project has the potential to impact the admissions process in multiple ways, while increasing our ability to assess applicants along with minimizing bias. The MMI process has been proven to be an effective and valuable addition to medical school admissions at a number of institutions. By assessing non-cognitive skills and promoting fairness, predictive validity, differentiation among candidates, and applicant satisfaction, the MMI helps identify individuals who possess the necessary attributes to become competent and compassionate physicians, in a way which aligns with the overall mission of Drexel University College of Medicine encompassing service and diversity.

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Reintegrating Biochemistry into the Phase 2/3 Curriculum at Drexel

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Department of Biochemistry & Molecular Biology, Drexel University College of Medicine

DREXEL UNIVERSITY College of Medicine

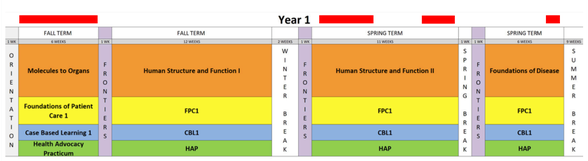
FACULTY LAUNCH

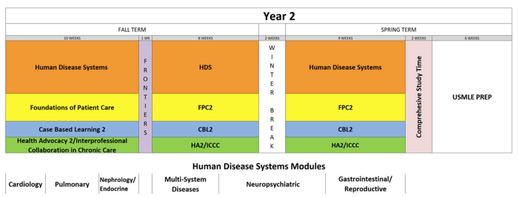
Abstract

Virtually all pathology and disease can be viewed through the lens of biochemistry and can be explained in terms of fundamental biochemical concepts. One limitation of the medical school curriculum in its current format is that all of the biochemistry material is front-loaded, being delivered very early on in the Foundations and Frontiers Curriculum (i.e. all during first year) with little to no opportunity for students to revisit this material once they have been exposed to clinical medicine. Not surprisingly, a frequent comment from students is that they wished biochemistry was integrated throughout the curriculum, allowing them to see the connections and draw parallels from the basic science they learned in Year 1 to the practice of clinical medicine during clerkships and rotations. Indeed, students often state that they master the biochemistry content for the purpose of passing the Step 1 exam at the end of the second year but do not retain this information. There is clear benefit in terms of reinforcing fundamental concepts in medical biochemistry such that students have a solid understanding of the biochemical basis of disease as practicing clinicians. The objective of this FLIP proposal is to reintegrate biochemistry during the clinical years, allowing students to come full circle. From this integrated approach, students will be able to link patient clinical presentation and symptoms to underlying themes in biochemistry from Year 1.

Background and Significance

In the current Foundations and Frontiers Curriculum at DUCOM, medical biochemistry is front-loaded and covered entirely in Year 1 (see below, red bars indicate where biochemistry material is taught). Informal polling of students has indicated that they see value in revisiting this material and having it reinforced as they transition into clinical practice. In addition, many students (especially those pursuing pediatrics as a specialty) have expressed interest in this type of course.





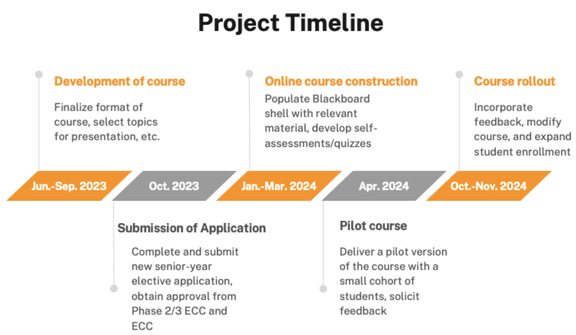
Goal

The goal of this project is to develop and launch a 2-week 4th year elective course that reintroduces students to biochemistry. These sessions will focus on specific diseases with well-established biochemical underpinnings (diabetes, metabolic disorders, disorders of hemostasis, etc.) and will encompass a variety of pedagogical methods: interactive review lectures on the disease, student presentations, and journal-club style literature reviews to highlight the latest findings in the field. The plan is to offer these sessions during elective blocks in the clinical years of the curriculum. The primary objective of this FLIP is to create a comprehensive understanding of the biochemical basis of various diseases that should better inform diagnosis, treatment, and patient outcome.

Objectives

Project Objectives and Timeline:

Overall Objective: Development of a 2-week 4th year elective course that reinforces basic concepts in biochemistry from Year 1 and links them with the underlying pathophysiology of various genetic diseases and metabolic disorders. Emphasis will be placed on clinical presentation, diagnosis, and treatment options while always returning to core principles in medical biochemistry.



Methods and Approach

This course will be entirely remote, partially asynchronous and partially synchronous. During week 1 (asynchronous), students will be required to review material posted on Blackboard and successfully complete several self-assessments and quizzes. During week 2 (synchronous), students will participate in journal club and deliver oral presentations via Zoom on selected topics.

Resources needed for the successful implementation of this project will include support from IT in terms of setting up the course in the Blackboard and overall course management. Additional human resources required may include a course administrator and pediatricians, endocrinologists, and medical geneticists who can facilitate and moderate journal club discussions on various metabolic diseases.

Potential topics to be covered in the first iteration of the course:

Inborn Errors of Metabolism

- **Protein Metabolism Disorders**
  - Amino Acidopathies (PKU, TYR, HCU, MSUD)
  - Organic Acaidaemias (MMA/PA, IVA, GA)
  - Urea Cycle Disorders (OTC, ASL, CPS,HHH, CTLN1, ARG, CTLN2, NAGS)
- **Fatty Acid Oxidation Disorders**
  - Long Chain Fatty Acid Oxidation Disorders (LCFAOD)
  - Medium Chain Fatty Acid Oxidation Disorders (MCFAOD)
  - Short Chain Fatty Acid Oxidation Disorders (SCFAOD)
- **Carbohydrate Metabolism Disorders**
  - Glycogen Storage Disease
  - Galactosemia
  - Fructose Metabolism Disorders
  - Pyruvate Metabolism Disorders

Short-Term and Long-Term Outcomes

Short-Term Outcomes (during the fellowship period):

- Finalize course structure and develop course content.
- Submit application for new elective course for approval first by Phase 2/3 ECC (Educational Coordinating Committee) and then by ECC.

Long-Term Outcomes (after the fellowship period):

- Once approved, work with IT to get the course on Blackboard.
- The course will be offered as a pilot during the spring of 2024 (likely during Block 11b, see below) with a small number of students (~5-6). Feedback from these students will be requested highlighting what worked best and what needs modification/improvement.
- Review feedback from this initial cohort and modify the course as needed.
- In future years, the plan is to expand enrollment to 10 students and to offer the course in the fall during Block 6 (6a and/or 6b).

DREXEL UNIVERSITY College of Medicine

4th Year Start Dates – AY 2023-2024
4-week blocks may only begin on the bolded dates

Block 11	March 25, 2024	April 19, 2024
Block 11a	March 25, 2024	April 5, 2024
Block 11b	April 8, 2024	April 19, 2024
Block 12	April 22, 2024	May 17, 2024
Block 12a	April 22, 2024	May 3, 2024

Challenges

While working on this project, I have become more familiar with the Phase 2/3 curriculum at DUCOM. I have become aware of its complexity in terms of logistics and scheduling with students located at multiple regional campuses for clinical rotations. This puts constraints on the format of this course. In discussing with students, it is apparent they they prefer a completely remote (Zoom-based) option rather than an in-person or hybrid course, and this course is completely amenable to being delivered in that mode.

Evaluation and Assessment Strategies

- Evaluation will be based on the successful development and delivery of this 4th-year elective course in the timeframe described.
- Student performance will be based on scores from self-assessments and quizzes and peer feedback on oral presentations.
- Success of the project will be determined primarily through student feedback and comments: For instance, were the learning objectives met? Did students feel that the course served both as a refresher of first-year biochemistry and prepared them to see and treat these conditions in the clinic?

Discussion and Impact

This project will enhance the 4th year elective course offerings at DUCOM and provide a course that integrates basic science with clinical medicine. Students have commented that they appreciate the flexibility that this type of course offers during the time period when they are typically interviewing, and therefore, it is anticipated that interest will be high. Additional anticipated impacts of this project are outlined below:

Project Impact and Discussion

- Allow students to formally integrate basic and clinical science in the fourth year of medical school
- Illustrate the importance of biochemistry in understanding mechanisms of disease
- Reinforce the benefits of lifelong learning and self-directed inquiry

Acknowledgements

I would like acknowledge Drs. Dana Farabaugh, Donna Russo, Karen Restifo, and Nick Kuzma for helpful advice and input on the development of this project.

Developing Faculty with Cultural Humility using Patient-First, Inclusive Language

DREXEL UNIVERSITY College of Medicine
FACULTY LAUNCH

Adrienne Willard, MD, Dana Farabaugh MD

Office of Educational Affairs

Abstract

Biased language influences health care provider's perception of patients which can impact care. It is critical that our trainees embrace and exercise patient-first language during their careers.

Our faculty unit is diverse coming from many clinical campuses and stages of their careers. We need to centralize the use of patient-first language to allow our trainees to learn in an unbiased environment with cultural humility.

We will assess faculty's current understanding and comfort with patient-first language, build a curriculum to heighten awareness, and provide tools for faculty to use later, and lastly assess faculty satisfaction and willingness to change practices (if appropriate).

Background and Significance

- Five decades of research on health and health care disparities have shown that social inequalities are key drivers of poor health outcomes among marginalized members of society. These are often perpetuated by the biased language we use within our profession. [1]
- Biased language influences health care providers' perceptions of patients, impacts clinical care, and prevents vulnerable populations from seeking treatment. Training clinicians to systematically replace biased verbal and written language is an essential step to providing equitable care. [1,2,3,4]
- DUCOM trainees must be able to provide patient care with cultural humility Including the use of patient-first, inclusive language. This concept is integrated into our curriculum for our trainees, but we do not have any formal training for our faculty.
- Based on feedback, some faculty members are not comfortable with, prepared for, or well-versed in using this type of language. This represents an opportunity. This project aims to fill this void and fulfill LCME standard 4 for faculty professional development.

Goals

- Unify our diverse faculty on the use of unbiased, patient-first language across years, courses, and sites.
- Faculty will learn new actionable skills such as avoiding labeling patients, reframing situations, and reflecting before documenting that they will incorporate into their practices.
- Faculty will echo and propagate this attitude and approach towards patient-first language to our DUCOM trainees.

Objectives

- Improve faculty awareness of patient-first language and cultural humility
- Educate faculty on impact of patient-first language
- Disseminate techniques to identify biased or stigmatizing language and replace it
- Apply inclusive language in educational and clinical settings

Methods and Approach

- Develop a web-based survey to assess faculty understanding of patient-first, inclusive language and faculty preferred methods of engagement.
- Create a curriculum to prepare faculty in their role as facilitators with expectations of using patient-first language.
  - Explain the impact of providers' language biases on patient care
  - Describe strategies to mitigate providers' language biases.
  - Apply strategies learned to address stigmatizing language
- Pilot Curriculum Delivery using Foundations of Patient Care (FPC)
  - Longitudinal course in the pre-clinical curriculum of years 1 (FPC1) and 2 (FPC2).
- Assess the effectiveness of training through a web-based surveys
  - Assess faculty's understanding of patient-first language after curriculum, faculty's satisfaction with material, and impact on faculty's behavior post intervention
  - Assess student satisfaction with and impact on behavior due to faculty cultural competency

Short-Term and Long-Term Outcomes

- Stage 1: June 2023 : Tool Online- Qualtrics survey
  - Needs assessment
  - Target faculty will be preclinical small group facilitators

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- Stage 2: July 2023
  - Curriculum development (deliverable)

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- Stage 3: August 2023
  - Pilot Project: delivery of curriculum to FPC2 faculty small group facilitators

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- Stage 4: November 2023
  - Assessment of efficacy of intervention on pilot group via online survey

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- Stage 5: Academic year 2024-2025 and the future
  - Deliver curriculum to other small group facilitators in preclinical courses
  - Deliver curriculum to clinical faculty

Challenges

- Willingness of faculty to reflect on and change behavior with respect to language.
- Buy-in from faculty to utilize their time to complete the initial survey and training
- Dissemination across courses, years, and sites

Examples of Patient-First Language Replacements

Avoid	Use
"substance abuser, opiate addict, alcoholic"	"person with substance, opioid or alcohol disorder"
test was "dirty" or "clean"	"your test shows x"
"s/he's bipolar"; "crazy"; "borderline"	"patient has a known diagnosis of bipolar I disorder"
"committed suicide"	"died by suicide"
"wheelchair-bound"	"wheelchair user"
"homeless person"	"patient experiencing homelessness" or "unhoused person"
"ex-convict"	"person with a history of incarceration"
"fat or obese patient"	"patient who is obese" or "person with a diagnosis of obesity"

Evaluation and Assessment Strategies

- Deliverable
  - The curriculum with a "toolbox" for identifying stigmatized or biased language and replacing it
- Impact of Pilot Project in FPC2
  - Faculty comfort with patient-first langue
  - Faculty's anticipated behavior changes

Impact of Curriculum: Identifying and Removing Stigmatizing Language from Learning Environment (Sample Survey)

Years in clinical practice				
<5 years	5-9 years	10-15 years	> 15 years	Retired from clinical practice
I am more aware of the impact of biased language on patient care:				
Strongly disagree	Disagree	Neither Disagree or agree	Agree	Strongly agree
I learned new strategies that I can use to identify and replace language biases:				
Strongly disagree	Disagree	Neither Disagree or agree	Agree	Strongly agree
I will apply the inclusive language strategies I learned when teaching DUCOM students:				
Strongly disagree	Disagree	Neither Disagree or agree	Agree	Strongly agree
I will apply the inclusive language strategies to my clinical practice (i.e. speaking of patients, documentation)				
Strongly disagree	Disagree	Neither Disagree or agree	Agree	Strongly agree

Discussion and Impact

- Having a robust, cohesive faculty unit that embraces cultural humility across multiple sites and multiple courses is imperative for excellent education of trainees.
- Although biased language is not (always) intentionally harmful, it is often embedded and normalized in the unwritten curriculum and the practice of medicine. The "unlearning" of this language is a task for providers who have decades of potential use of this.
- The information gained and developed can be used for preclinical small group facilitators in multiple courses and can be utilized to further develop faculty at clinical sites.
- As we continue to recruit faculty, this workshop can be used as part of entry training for courses and/or annual training. Ultimately, this will allow for both students and faculty to have an improved experience and utilize patient-first, unbiased language that will lead to improved patient outcomes

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