Poster Session 1 Abstracts: March 24, 2021 from 4:30 - 5:30pm Eastern

A BOOT CAMP TO SUPPORT MED-PEDS INTERNS IN SPECIALTY TRANSITIONS

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BACKGROUND: Med-Peds (MP) interns face a unique challenge of switching between two distinct medical specialties during their intern year. We are unaware of any published curricula to support MP interns as they transition between specialties. PRIMARY OBJECTIVE: To create a curriculum designed to support MP interns prior to their first specialty transition. METHODS: We utilized Kern's 6-Step Framework to assess the challenges associated with these transitions and design a novel curriculum to better prepare MP interns for their first switch from Pediatrics to Internal Medicine or vice versa. A needs assessment of current residents indicated that most (69%) felt significant anxiety prior to their first switch. Interns felt most unprepared for clinical management of common conditions in their upcoming specialty, and residents recalled difficulty adjusting to a new EMR and hospital system. We developed a half-day curriculum implemented just prior to the first switch to address these concerns. To review management of common clinical conditions in each specialty, we created interactive clinical cases and chalk talks. We also utilized near-peer teaching as well as intern-to-intern teaching on pre-written cases. Additionally, we reviewed hospital system procedures and EMR set-up at new clinical sites. The day concluded with a program-wide dinner to share advice about the first switch with interns. RESULTS: Interns were surveyed before and after the boot camp. Upon completion, fewer interns felt moderately or very nervous (25% post vs 75% pre), and more felt very confident in using the EMR at their upcoming site (75% post vs 50% pre). Additionally, all interns felt moderately or very confident in their understanding of senior resident and attending expectations post-curriculum (100% post vs 0% pre). CONCLUSIONS: After participating in a novel curriculum, MP interns feel more prepared and less anxious prior to their first specialty transition. Moving forward, we will use post-intervention feedback to optimize our curriculum for the incoming intern class. Adoption of a similar curriculum would likely benefit MP interns in other programs.

AN APP-BASED JOURNALING INTERVENTION FOR BURNOUT IN PEDIATRIC RESIDENTS: A PILOT STUDY

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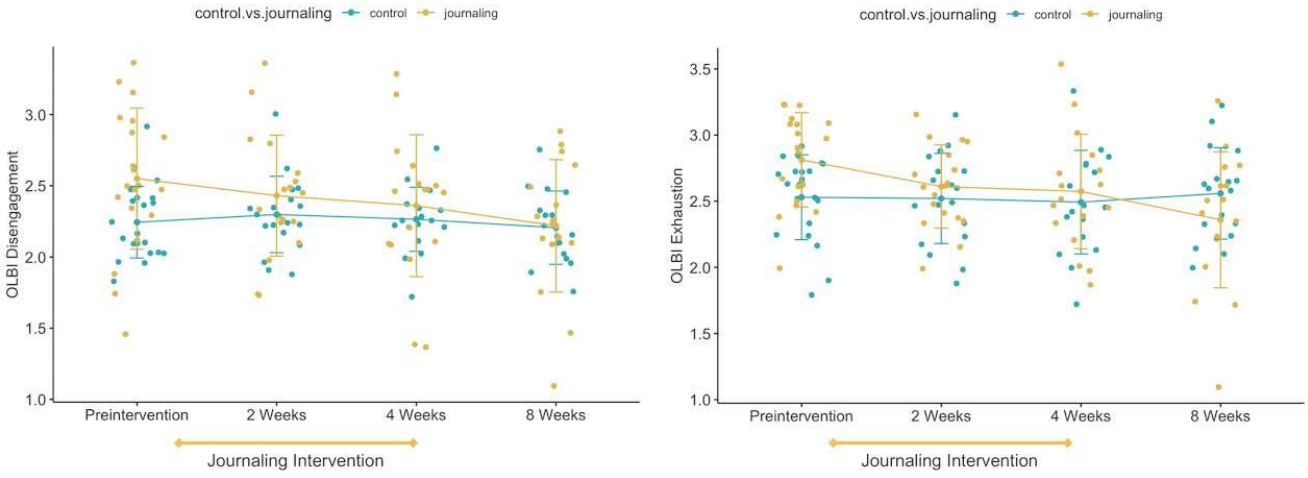
Although the prevalence and the consequences of burnout in residency have been well documented, effective burnout interventions are not well understood. Gratitude and three good things journaling (G/3GT) are effective, low-cost Positive Psychology interventions that have been shown to significantly improve measures of burnout, happiness, depression, gratitude, and stress. Pediatric residents (n=41) from an academic medical center participated in a non-randomized controlled trial of an app-based G/3GT journal for 4 weeks. Assessments were collected at baseline, week 2 (middle) week 4 (end) of intervention, and week 8 (4 weeks following intervention). We measured burnout and feasibility as primary outcomes with gratitude and life satisfaction as secondary outcomes. Burnout was measured using the Oldenburg Burnout Inventory (OLBI), broken down into exhaustion and disengagement. Feasibility was measured as adherence to journaling 5 days per week. Life satisfaction was measured using the Satisfaction With Life Scale (SWLS) and gratitude was measured using the 6-item Gratitude Questionnaire (GQ-6). A difference-in-difference multivariate regression was used to examine the efficacy of the intervention. Burnout was significantly decreased in terms of exhaustion (ß -0.29, p 0.04), and showed a non-statistically significant trend towards decreased disengagement (ß -0.22, p 0.11). There were no significant trends in life satisfaction (ß 1.41, p 0.54) or gratitude (ß -0.36, p 0.87). In the journaling intervention group, adherence was 85% over 4 weeks. In the control group, 81% of participants completed all surveys. Follow up data 6-months post-intervention is pending collection and analysis. This was a small pilot study and, to our knowledge, the first controlled trial of G/3GT journaling as an intervention for resident burnout. With 85% adherence, this was a feasible intervention for the residents in our study. Our journaling group showed decreased burnout in the dimension of exhaustion; however, given the variance in our sample, larger trials are needed to validate the results of our study.

Figure 1. Burnout - Disengagement and Exhaustion



BOLSTERING PEDIATRIC PHYSICIAN SCIENTIST TRAINING: A NATIONAL NEEDS ASSESSMENT OF RESIDENCY PROGRAM DIRECTORS

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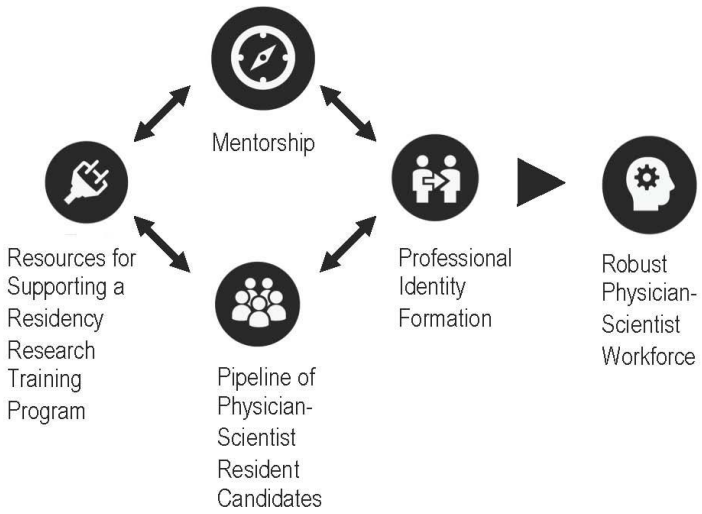
Background: Threats to the physician-scientist pipeline continue to increase in pediatrics. Limited information exists about pediatric physician-scientist training structures, support, and barriers during residency training. Objective: Describe the current training opportunities and challenges for pediatric physician-scientists during residency. Design/Methods: A web-based survey was disseminated to pediatric residency program directors in 2019 through the Association of Pediatric Program Directors. Quantitative data were analyzed with descriptive statistics, Pearson chi-square, and Fisher's exact test. Qualitative data were analyzed trough thematic analysis. Results: Of 200 pediatric residency program directors surveyed, 76 responded (38% response rate). Among 31 programs that support physician-scientist training, 84% use the categorical pathway while only 43% offer the American Board of Pediatrics Integrated Research Pathway (IRP) and 29% offer the Accelerated Research Pathway (ARP). Only 19% have a separate National Residency Match Program number for physician-scientist training tracks. No significant differences were found between program settings using the ARP and IRP. The most common degrees of trainees participating in physician-scientist pathways were MD-PhD and MD-MPH degrees (26 and 17 programs, respectively). Health services and translational research are the most available research options (90% of programs). Most programs report funding support from hospital and department funds, and rarely from external funding sources. Identified barriers were lack of institutional resources, fostering dual professional identity, and insufficient numbers of trainees entering the physician-scientist pipeline (conceptual framework illustrated in Figure 1). Conclusions: Program directors utilize diverse pathways to train pediatric physician-scientists. The majority of pediatric physician-scientist trainees follow the categorical pathway. Opportunities exist to improve pediatric physician-scientist training during residency by bolstering institutional climate and support.

Needs and outcomes of a successful physician-scientist program from the perspective of pediatric residency program directors.



COMPONENTS OF A VIRTUAL DIVERSITY EQUITY & INCLUSION (DEI) RETREAT

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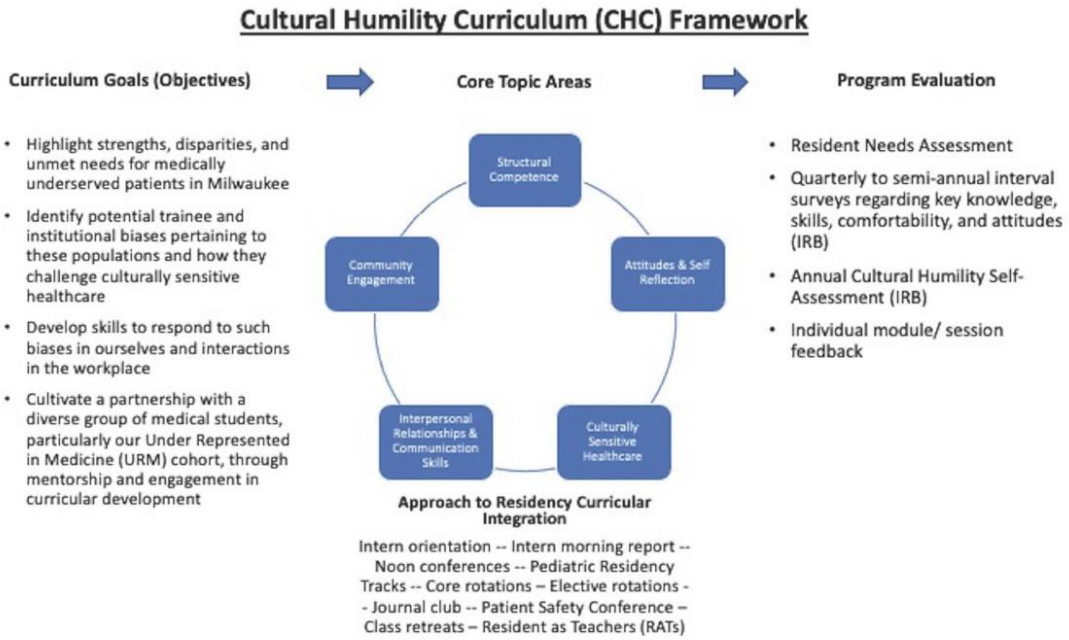
BACKGROUND: Spring 2020 climate survey results from the pediatric department in the Rush University Children's Hospital were reviewed. National escalating racial tensions in summer 2020 increased urgency for improved communication, understanding, and policy change. OBJECTIVE: Hold a departmental virtual retreat for residents, faculty, and staff focusing on anti-racism and wellness, resulting in actionable items that will lead to increased knowledge of systemic racism and disparities in health care, policy change, and a culture of inclusivity. METHODS: The retreat was held via the zoom platform on a workday (3.5 hours). Clinics were closed and inpatient providers reduced to a safe minimum. Prerequisite readings were distributed the month prior. Attendance was required. A renowned pediatrician, public health advocate and scholar who writes and teaches on the relationship between structural racism, equity, and health was the keynote speaker. The presenter outlined anchors of diversity work, facilitated discussion with institutional leaders, and gave prompts for small group sessions. Wellness activities were included. A post retreat survey was sent. RESULTS: Weighted averages from a 5-point Likert scale from not useful to very useful were calculated for each section of the retreat: keynote presentation 4.6, facilitated discussion with Rush leaders 4.0, small groups 3.5, wellness activity 3.9. Free text responses reflected increased knowledge of systemic racism and disparities in healthcare, and a commitment to work towards inclusion and anti-racism. Actionable items included changes to recruitment, patient care, policies, and workplace culture. DEI subcommittees were formed to operationalize action items. A yearly climate survey will be used to assess achievement of objectives. CONCLUSION: Critical conversations lead to an increased sense of equity and inclusivity that result in an improvement in culture. For success, there must be actionable items and a blueprint for transformation. DEI and wellness can be complementary; efforts in one domain reinforce the other. Work is ongoing to create meaningful change.

DEVELOPMENT OF A CULTURAL HUMILITY FRAMEWORK FOR PEDIATRIC RESIDENTS

Swathi Prasad, MD, Medical College of Wisconsin Affiliated Hospitals, Wauwatosa, WI, Ashleigh Watson, MD, Robert Trevino, MD, Michelle Hwang, MD, Oluwasoore Akande, DO, Constance Gundacker, MD, Medical College of Wisconsin Affiliated Hospitals, Milwaukee, WI

BACKGROUND: As health outcomes and graduation requirements demand improved education of culturo-social factors that impact patients, formal curricular change is needed to equip residents with knowledge and skills to provide culturally effective healthcare to diverse populations. A Diversity, Equity, and Inclusion (DEI) Committee was formed to create such a cultural humility curriculum (CHC). OBJECTIVE: Develop a comprehensive, longitudinal CHC framework to be integrated into residency curriculum. METHODS: AAP recommendations, ABP content specifications, and existing curricula of culturally effective care were reviewed to create a framework. We found isolated tools to teach about biases, social determinants of health, or microaggression responses, but no sustainably integrated curricula. Key stakeholder interviews determined content priorities and venues. An educational thread evaluated existing content for strengths and gaps. RESULTS: Notable content gaps included bystander intervention, responding to harmful institutions or structures, and integrating diverse practice with western medicine. Education had been encompassed in noon conference or a community pediatrics block, limiting teaching modalities and total residents reached. Per feedback, five core topic areas were identified (figure 1) with specific content themes. The CHC then created Milwaukee-focused education at orientation, an annual DEI journal club, racism in medicine presentations, implicit bias training, DEI

cases at daily intern morning report, and resident-led interactive conferences on responses to microaggressions. Six months in, we calculate a 40% increase in content domains addressed and doubling of educational activities, attended by all trainee levels and faculty. With evaluation by 1-5 Likert scale, resident reaction data has been >4.1 for all implemented sessions to date, with notes on effective structuring, "helpful topic[s] to improve our care for patients", and requests for more tools and strategies as the CHC evolves. CONCLUSION: A longitudinal CHC framework can be integrated into existing residency curriculum and is viewed by residents as beneficial.



DID THAT JUST HAPPEN? CHARACTERIZING DISTRESSING EVENTS AND DEBRIEFS EXPERIENCED BY PEDIATRIC RESIDENTS AT TWO INSTITUTIONS

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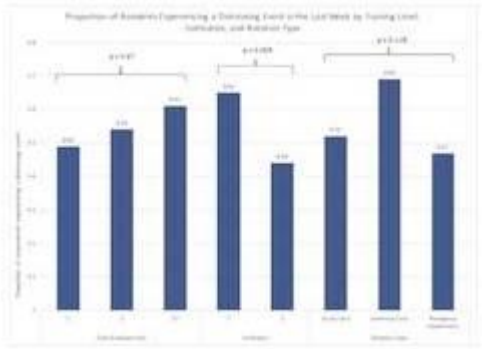
Background: Nationally, more than 50% of pediatric residents report burnout. Challenging clinical encounters have been identified as a key driver of provider burnout, particularly among trainees. Emotional debriefing, which focuses on the impact of these experiences on the healthcare provider, has been shown to promote resilience and decrease burnout. There is a paucity of data describing the frequency and type of distressing events experienced by pediatric trainees and whether or not they are being debriefed. Methods: For this IRB approved point-prevalence study, pediatric residents rotating on acute care units, intensive care units, and in the emergency room were surveyed monthly from August 2020-July 2021 at two large academic medical centers. Survey measures included questions characterizing distressing events and debriefs experienced by residents, barriers to debriefing, and demographic data. Survey data was analyzed using descriptive statistics and chi-squared tests. Results: 207 residents were surveyed and interim analysis includes survey data from 147 residents. 54% of residents experienced a distressing event in the prior week with a median of 1 event experienced (range 0 to >10). There were no significant differences between the proportion of

residents who experienced distressing events by post-graduate year (p=0.47) or rotation type (p=0.128) (Figure 1). High distress (>2 events) occurred more often in residents rotating in intensive care units (p=0.019). Of the 220 total events, the most commonly cited events included patient deterioration (N=70, 32%) and interpersonal conflict among the care team and with patients/families (N=100, 45%). 36% of residents reported no debrief occurred following any events in the prior week. Common barriers to debriefing includ lack of time and clinical duties. Conclusion: Pediatric residents experience a diverse range of distressing events, yet many events are not debriefed despite their potential negative impacts. Future studies should explore the feasibility and impact of emotional debriefing within pediatric residency.



DIVERSITY AND IMPLICIT BIAS TRAINING IN PEDIATRIC GRADUATE MEDICAL EDUCATION

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Background:
The National Academy of Medicine has characterized healthcare disparities as extensive and pernicious, and unconscious bias as contributing to disparities. NAM's recommendations include increasing the proportion of under-represented in medicine (URiM) health professionals and dedicated implicit bias training. To our knowledge, no studies have evaluated residency diversity recruitment efforts or implicit bias curricula offerings.
Objectives:
To characterize the URiM diversity within pediatric residency programs (trainees and program leadership), explore efforts to improve URiM recruitment, and understand implicit bias training offerings. A secondary objective was to identify factors associated with having the highest proportion of URiM residents.
Methods:
We conducted a national survey of pediatric residency program directors between January and February 2020. The survey was disseminated after approval by the Association of Pediatric Program Directors Research and Scholarship Learning and Community.
Results:
We received responses from 102 of 205 program directors (response rate = 50%). Most programs (n= 87; 85%) had less than 31% URiM representation, the approximate proportion of minorities in the general population. Nearly 20% (n= 20) had less than 10% URiM residents. Of six best-practice URiM recruitment strategies, one-third of responding programs used only one or none. The most commonly reported strategy was inclusion of URiM faculty on recruitment committees (n=91; 89%). Seventy-two programs (71%) reported having implicit bias training although the offerings generally represented only 1-2 hours of content per residency year. In multivariable analysis, programs with chief residents who identified as URiM were more likely to have > 31% URiM representation over the past 3 years.
Conclusions:
Programs had URiM representation far below that reflected in the US population, URiM recruitment strategies were underutilized, and implicit bias training was limited. In the context of longstanding healthcare disparities and insufficient progress in diversification of the healthcare workforce, we issue a call to action on the part of our pediatric community to better address these deficits.

Characteristic	Respondents, n (%), N = 102	Non-Respondents, n (%), N = 102	p-value
Total Residents, Median (Min, Max)	40 **(12, 162)**	36 **(4, 162)**	**0.3**
Small <30	25 **(25)**	40 **(40)**	**0.025**
Medium 31-60	41 **(40)**	40 **(40)**	
Large >60	36 **(35)**	21 **(21)**	
Region			
Northeast	34 **(33.3)**	38 **(37.2)**	**0.4**
Midwest	28 **(27.5)**	23 **(22.5)**	
South	25 **(24.5)**	28 **(27.5)**	
West	15 **(14.7)**	13 **(12.7)**	
Setting			
Community	48 **(47)**	55 **(54)**	**0.01**
University-based	54 **(53)**	40 **(40)**	
Military	0 **(0)**	6 **(5.9)**	
Community Subtype			
Urban community	77 **(75)**		
Suburban community	50 **(49)**		
Rural Community	37 **(36)**		
Publicly Insured Payer Mix			
>75%	30 **(29)**		
50-74%	45 **(44)**		
<49%	27 **(26.5)**		
% of male residents			
< 10%	3 (2.9)		
10 – 30%	70 (68.6)		
31 – 60%	29 (28.4)		
% URiM residents			
< 10%	20 (19.6)		
10 – 30%	67 (65.7)		
31 – 60%	13 (12.7)		
61 – 90%	1 (1)		
> 90%	1 (1)		
URiM chief residents in last 3 years			
Yes	61 (59.8)		
URiM program leadership (PD, APD, program coordinator)			
Yes	63 (61.8)		
How closely does faculty mirror patient population?			
Extremely closely	2 (2)		
Very closely	11 (10.8)		
Somewhat closely	31 (30.4)		
Minimally	56 (55)		
Not at all	2 (2)		

EVALUATING A VIRTUAL ELECTIVE FOR UNDERREPRESENTED MINORITY (URM) MEDICAL STUDENTS

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Background COVID-19 led to limitations on visiting rotations, precluding students from evaluating residency programs in person. URM students may face challenges assessing program culture and diversity/inclusion, as programs work to highlight these aspects and recruit diverse residents. Objectives 1) Introduce URM students to our program's advocacy, research, mentorship and clinical activities, 2) connect students with mentors and 3) strengthen pediatric knowledge/skills in preparation for residency. Methods We created a 2-week virtual rotation open to 20 URM students and advertised via COMSEP/APPD listservs and social media. We included interactive Zoom teaching sessions on pediatric topics, virtual simulation, resident conferences, meetings with key residency and institution leadership/faculty, sessions with resident groups (advocacy and diversity committees, anti-racism task force), and individual meetings with residents/faculty based on student interest. One faculty director led the course, with low time-commitment involvement of ~20 other faculty and multiple residents. About 4 hours/day virtual interaction/instruction were offered, plus 2-3 hours/week independent study. Students wrote weekly reflections and did end-of-rotation presentations. Primary outcomes were student interest, satisfaction with rotation, and number of URM students matched. Results 10 students enrolled; all completed anonymous post-rotation surveys, rating sessions on a Likert scale (1-5). Mean scores for *general pediatric sessions*, *mentorship sessions*, *URM topics* and *intro to program sessions* were 4.8, 5.0, 4.9 and 4.9, respectively. Student reflections/survey comments indicated elective goals were met (Table).

Theme	Representative Comments from Anonymous Course Evaluations and Student Reflections
Introduction to Program	*"Everyone, faculty and residents are both so consistent and committed to not only a strong learning environment but also a super supportive culture."* *"Through dedicated teaching sessions, small group dialogue, resident case reports, and meetings with members of leadership, Lurie has gone above and beyond to show us the personality of the pediatric residency program…Our virtual experience has clearly demonstrated that the administration is supportive, the trainees are hardworking and happy, and the clinical care provided is thoughtful, evidenced-based, and truly high quality for all patients."* *"I was able to learn more about the directions Lurie is planning to take in the future, to address advocacy and community involvement."* *"It has been an overwhelmingly positive experience for me to virtually participate in the Lurie URM elective so far! I am gaining a strong sense of what the residency program values"* *"Everything about my experience on this virtual rotation thus far has been even better than I had hoped. Before it began, I wasn't sure how much I would be able to ascertain about the people and culture at Lurie via Zoom, however I really do believe that I've been able to get a good sense of what it would be like to be a resident here"*
Challenges for URM Students in Medicine	*"I appreciated the honesty and transparency which the residents shared regarding the efforts to improve recruitment and retention of a diverse workforce even beyond the residency staff."* *"While it can be overwhelming to know where to start in our effort against racism, I think understanding and addressing our own implicit biases regarding race can be a good first step. I appreciated that Dr. XXX and Dr. XXX provided a place to talk about it and gave us practical tools to address it as well."* *"It was eye-opening yet sad to learn about the detrimental effects of racial disparities on birth outcomes"* *"Galvanizing talks like Dr. XXX's never fail to re-invigorate my commitment to addressing social determinants of health, pushing for greater health equity, and continuing life-long learning in cultural humility"* *"I've also really appreciated that the administration does not shy away from conversations about diversity and inclusion. When faced with tough questions about representation amongst residents and faculty at the hospital, everyone…handled their responses well, acknowledging the problem at hand, highlighting the importance of building a team of physicians that mirror the communities they serve, and outlining the institution's plan to create change."*
High Yield Residency Prep	*"This week I really enjoyed the session we had with Dr. XXX about 'Communication as a Resident'…She provided practical tips that I will implement in my upcoming rotations and as an intern."* *"It was great to learn about general pediatric topics from experts and to learn about complicated cases at daily resident conferences."*
Mentorship	*"Even over the phone, Dr. XXX gave me a sense of support and excitement for my future career in pediatrics. He conveyed how much investigational research is being conducted at Lurie Children's and how there is still so much room to grow."* *"My first mentorship meeting with Dr. XXX was so neat"*
Collaboration	*"Truly one of my favorite parts of this elective though has been meeting some awesome students from around the country and hearing their unique perspectives as well!"* *"One of my favorite things about the past week on this elective has been the opportunity to think and work as a group."* *"I hope that the students that I've met here will continue to keep in touch for the duration of the application cycle and see each other as a supportive resource as we take the next step towards becoming pediatricians."* *"This is really the first time as a medical student that I've been able to consistently collaborate with trainees at my level from different institutions in a longitudinal and meaningful way. It was particularly meaningful to do this with a group of minority women who like myself don't often feel adequately represented by the medical profession"*

Evaluation of URM match outcomes is pending residency match. Conclusion An innovative, low-cost virtual immersion of URM students into a residency program yielded high value to students. Impact on URM match rates is not yet known. An unexpected positive outcome was bonding between URM students from disparate schools. Virtual electives may continue to be a valuable tool to engage students unable to complete visiting rotations.

HOW COACHING PEDIATRIC RESIDENTS IMPACTS COACHES' RELATIONSHIPS, LEARNING, AND PROFESSIONAL IDENTITY

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Prior research on coaching in medical education has examined opportunities and outcomes for trainees. As more institutions invite faculty to take on this role, it is critical to understand how working as a coach impacts coaches themselves. This study examines the impact of coaching on coaches'professional identity, engagement, and learning. In Fall 2020, we conducted an IRB-approved mixed method study of coaches at two institutions with pediatric resident coaching programs. We developed a survey measuring the impact of coaching on coacheslearning, engagement, and professional identity. Interviews further examined the coachesexperience. Qualitative data were analyzed inductively guided by sensitizing principles of professional identity. Of 43 coaches, 32(74%) completed the survey; 19 completed interviews (Table 1). Many reported that coaching strengthened communication (90.6%), educator (92.8%), and clinical skills (46.9%). Coaches reported positive impacts on relationships, satisfaction, and career growth. The impact on career growth differed by rank ($p<0.05$): junior faculty reported more positive impact than senior faculty. In interviews, junior faculty noted a greater impact on sense of belonging and career growth; senior faculty felt coaching was a source of joy, connectedness, and continual learning. Three major themes emerged in the interviews: 1) The coach role enabled strong relationships with trainees and faculty, which supported coaches' sense of belonging in the community, pride, impact on others, and validation. 2) Coaching facilitated multifaceted learning, growth, and confidence, helping coaches further identify as educators. 3) Coaches' relationships and learning helped all faculty deepen their professional identity as educators, with some identifying as legitimate educators for the first time. Coaching deepens coaches' professional identities as educators through relationships, learning, and sense of belonging in the community. These impacts may be mediated by career stage with junior and senior faculty growing their professional identities in distinct yet valuable ways.

Table 1: Faculty Coach Characteristics (*n* = 32)

Variable	N (percent)
Institution	
Stanford University	15 (46.9)
University of Washington/Seattle Children's	17 (53.1)
Faculty Rank	
Assistant Professor/Assistant Clinical Instructor	11 (34.4)
Associate Professor/Associate Clinical Instructor	14 (43.8)
Professor/Clinical Instructor	6 (18.8)
Specialty	
General Pediatrics	3 (9.4)
Hospital Medicine	10 (31.2)
Subspecialty Pediatrics	19 (59.4)
Coaching Status	
Current Faculty Coach	19 (59.4)
Former Faculty Coach	13 (40.6)

IMPACT OF X+Y SCHEDULING ON FACULTY PERCEPTIONS OF RESIDENT EDUCATION 2 YEARS OF DATA FROM THE PEDIATRIC X+Y SCHEDULING COLLABORATIVE

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Background: Five pediatric residency programs were granted the ability from the ACGME in 2018 to create true X+Y scheduling models where residents see continuity clinic patients in blocks rather than half-day per week experiences. We previously reported the perceived improvements at 1 year and continue to evaluate the impact of X+Y scheduling annually. Methods: Surveys were sent via REDCap to faculty of the five X+Y pilot programs both prior to, 12 months, and 2 years after implementing X+Y scheduling. The surveys elicited the clinical focus of the faculty (general pediatrics, hospital medicine, or other subspecialties). Questions were tailored to the area of focus to determine the impact continuity clinic schedules had on general pediatrics, hospitalist, and subspecialty rotation experiences using a 5-point Likert scale. Data were analyzed using z-tests for proportion differences for those answering Agree or Strongly Agree between baseline and post-implementation respondents. Results: 384 faculty were sent the survey with 51% response pre-implementation, 32% at 12 months and 40% at 2 years. Each general pediatrics faculty outcome was improved in the X+Y model compared to traditional clinic schedules at 2 years ($p<0.05$) including perceived ability to have continuity with patients (64% pre to 79% at 2 years) and having adequate time for teaching (39% to 93%). Hospitalists noted improvements in having adequate time for teaching outside of rounds (60% to 85%) and decreased impacts on inpatient workflow with X+Y (79% to 43%). There was no statistical difference noted in teaching time by subspecialty faculty. There is no statistical difference in faculty perceptions between 1 year and 2 years after X+Y implementation. Conclusions: General pediatric and hospitalist faculty continue to perceive improved patient continuity and enhanced educational opportunities in X+Y scheduling 2 years after implementation compared to traditional half-day per week continuity clinics. Subspecialty faculty note no significant impact on educational time with X+Y scheduling.

IMPLEMENTING A VIRTUAL GLOBAL HEALTH ELECTIVE FOR PEDIATRIC RESIDENTS DURING A PANDEMIC

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Global health (GH) education in residency programs includes experiential based learning at international sites. Due to COVID-19, our residency GH program is unable to offer away rotations. To fill this gap, a virtual GH pandemic elective was created to highlight concepts aligned with practicing pediatrics globally. The elective was developed to include the following learning objectives: history, evolution and lessons learned from previous pandemics; pandemic preparedness; ethical dilemmas impacting patient care; crisis/emergency risk communication training; traumatic stress; and health disparities relating to the pandemic. Informational resources included self-directed online courses and online lectures from the University of Minnesota’s “Disaster Preparedness and Infectious Disease Outbreaks” course. Webinars, articles, and podcasts from medical journals and newspapers were used to highlight topics. Methods

used to encourage interactive learning include: online daily debriefs; virtual “flipped classroom” sessions with international partner sites to facilitate resident exposure to international faculty and trainees; and weekly reflections and blog entries. Residents completed a final presentation combining core concepts from the elective, which was presented to the pediatric residency program at large. Faculty met weekly to discuss resident progress and to modify material to reflect current events. Feedback from resident evaluations was used to assess and modify the elective. Since March 2020, 9 residents have completed the elective and it will be offered to 15 more residents this academic year. Residents commented the elective helped them understand the framework for pandemic preparation and learn about healthcare issues that arise during pandemics in low-resource areas. This virtual elective was positively received by residents who learned key GH concepts, despite the lack of travel. While virtual learning is not a substitute for traveling, this elective successfully taught residents core principles and may serve as a model for replication in other residency GH programs.

INCREASING PEDIATRIC RESIDENCY PROGRAM AWARENESS AND PARTICIPATION IN HEALTH EQUITY EFFORTS

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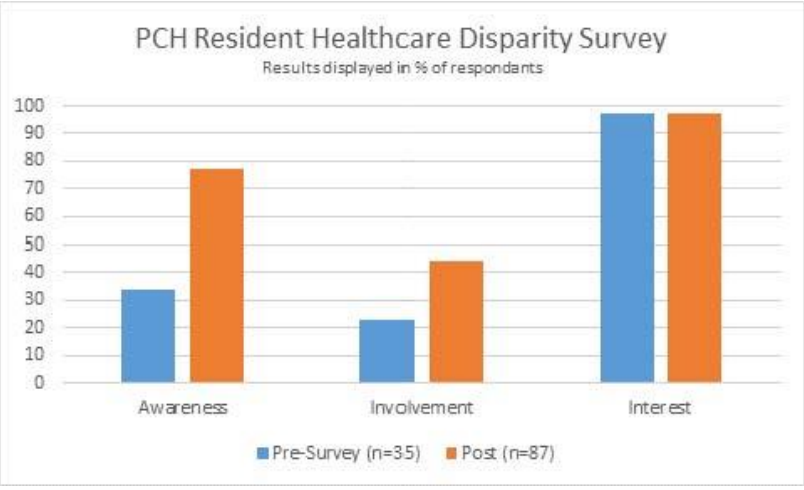
The Clinical Learning Environment Review (CLER) provides feedback to hospitals to better train physicians to meet the needs of our rapidly evolving healthcare environment. Healthcare disparities (HCD) are one of the 6 focus areas. They are prevalent, insidious, and have been under-recognized by our medical institutions. The coronavirus pandemic has uncovered the dangers of disparate care. In June 2019, Phoenix Children's Hospital received feedback that many trainees did not know the institutional priorities to address HCD nor how to meaningfully contribute. To address this, we surveyed all pediatric residents regarding 3 aspects of HCD: awareness of what they are and institutional efforts to decrease them, personal involvement in quality improvement (QI) projects addressing HCD, and interest in participating in health equity efforts. We implemented the following interventions to engage our pediatric community: 1) presentations at resident, fellow and faculty forums about the impacts of HCD 2) monthly updates at house-staff meetings including volunteer opportunities, advocacy events, and ways to get involved in related projects 3) health equity book/movie club 4) quarterly newsletter highlighting one area from our hospital's community health needs assessment 5) workgroup to systematically include HCD in institutional QI work. We surveyed trainees one year later to determine the efficacy of interventions.



At baseline, 34% of residents were aware of local HCD efforts, 23% were personally involved in HCD projects, and 97% were interested in engaging in HCD work. Following interventions, 77% of residents were aware, 44% were personally involved, and 97% were interested in HCD work. Our pediatric residents are highly motivated to make healthcare more equitable yet have not known the best ways to get involved. By making HCD efforts more organized and accessible, resident participation in projects nearly doubled in only one year. We aim for additional impact as a result of a hospital HCD charter.

LEARNING FROM HOME: CREATION OF A HOME ELECTIVE CURRICULUM FOR PEDIATRIC RESIDENT TRAINING DURING THE COVID-19 PANDEMIC

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Background: Decreased pediatric census with the COVID-19 pandemic has significantly affected clinical experiences for pediatric residents, giving less opportunities for learning from direct patient care. Limited data is available about the optimal format of self-guided elective educational experiences. Objective: To evaluate the use of a home curriculum to enhance the elective experience for pediatric residents. Methods: A home elective curriculum was created to supplement elective rotations for pediatric residents at the University of Illinois at Chicago. Diverse media types focused on what general pediatricians need to know about each subspecialty. Residents were emailed weekly with daily assignments and asked to self report when they completed this. Sources included teaching videos, articles and podcasts. Participants received a survey about their experience after completing the curriculum. They were also assessed using a weekly 10-question TrueLearn Quiz specific to their elective. Results: Thirty five resident survey results were reviewed. All residents self-reported they spent 1-2 hours/day on the home curriculum. Sixty percent (21/35) of participants were "very satisfied" with the curriculum overall. Out of all the resources used, Pediatrics in Review (PIR) articles and podcasts were noted to be the most helpful. Qualitative results noted that residents felt the home curriculum assisted with self-directed learning, supplemented teaching during the elective, and added versatility given by a variety of media used. There was no improvement in TrueLearn scores over the block. Conclusions: Use of a home curriculum to supplement elective activities was well received by residents during their elective rotation experience. Utilizing a variety of media types for learning, especially PIR articles and podcasts enhances elective rotations that have been affected by lower pediatric census during the COVID-19 pandemic. TrueLearn scores did not improve but questions were randomly selected and not focused on teaching from that week. Further research should be performed on optimal media options for self-directed learning, in particular examining the use of podcasts for resident education.

MISTREATMENT OF PROVIDERS BY PATIENTS AND FAMILY MEMBERS: EFFECT OF AN ORGANIZATIONAL STRATEGY ON PROVIDER KNOWLEDGE, SELF-EFFICACY, AND PATIENT SAFETY INCIDENT REPORTING OF MISTREATMENT

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Background: Mistreatment of health care providers (HCPs) is common and associated with burnout and lower quality patient care. However, mistreatment by patients and family members is under-reported. We studied its prevalence and the effect of an organizational strategy utilizing our patient safety infrastructure on HCP knowledge of and self-efficacy in addressing and reporting of mistreatment. Methods: In this single-center, serial cross-sectional study, we sent an anonymous survey to HCPs before and after intervention, consisting of training, incident reporting, and response protocol, to assess knowledge, self-efficacy and experiences of mistreatment at Yale New Haven Children's Hospital 2018-2019. We modified the electronic patient safety incident reporting software to include reporting of mistreatment. Multivariable logistic regression examined the effect of intervention on outcomes of interest. Results: A total of 309 baseline surveys were completed by 72 faculty, 191 nurses, and 46

residents, representing 39.1%, 27.1% and 59.7%, respectively, of eligible HCPs. Verbal threats from patients/family were reported by 69.5% of HCPs, most commonly by residents ($p<0.05$). Offensive behavior was most commonly based on age, gender, ethnicity/race and appearance, but varied by role. HCPs who received training had higher odds of reporting knowledge of mistreatment policies [OR 2.7[CI 1.38-5.32]], having a standardized approach to address mistreatment [OR 4.43[CI 2.03-9.67]], and intervening effectively when mistreated 1.93[0.93-4.01] or when witnessing mistreatment 2.39[0.99-5.78] by patients/family. Incident reporting of mistreatment increased three-fold after intervention. Conclusions: This is the first report of an effective organizational approach to address mistreatment of HCPs by patients and family members. Capitalizing on existing patient safety culture and infrastructure, it can be adopted by other institutions to combat all forms of mistreatment, including racism.

MORE TO THEIR STORIES: DEVELOPING A RESIDENT-LED STRUCTURAL COMPETENCY CURRICULUM

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It is imperative that physicians understand the context in which their patients live. Physicians need this understanding to gather a comprehensive patient history attuned to socioeconomic and cultural drivers, address barriers to medication adherence, and support patients in effectively navigating the healthcare system. At the University of Chicago, we are developing a structural competency curriculum to help residents build this fundamental knowledge to better serve our patients, especially those from diverse backgrounds experiencing racism and socioeconomic barriers. While many residents learned about cultural competency in medical school, Metzl et al. (2018) describes its inadequacy, stating, whilecultural competency focused mainly on identifying clinical bias and improving communication at moments of clinical encounter, structural competency emphasizes diagnostic recognition of the economic and political conditions that produce health inequalities in the first place. When surveying our program's residents, they identified an incomplete understanding of structural racism in medicine, insufficient insight into the context of our patients' lives, and inadequate connections to local organizations that improve the health and wellbeing of our communities. Presentations in our curriculum have addressed health literacy, environmental justice, racism in medicine, implicit bias, challenges to fair political representation, and broadening medical education's scope to include cultural practices to strengthen clinical judgment. Future conferences will further explore these topics as well as immigrant health, overcoming language barriers, and effective allyship. We have involved community organizations to lead these conferences to better facilitate understanding and support of our patients and our communities. We have also invited the other pediatric residency programs in Chicago to take part as this gap in knowledge is not unique to any one residency program. Moving forward, our goal is to secure a lasting foundation for this curriculum that will train a community of pediatricians primed to create structural change.

OPERATION COUNTER DISCRIMINATION: MOVING FROM BYSTANDER TO UPSTANDER

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Background: Racial and ethnic discrimination from patients and families creates a hostile work environment for Black, Indigenous, and people of color (BIPOC) physicians. Studies show colleagues witnessing these remarks often respond with avoidance or passivity. This is interpreted as agreement with or apathy towards the discriminatory remarks. Published accounts and anecdotes reveal that colleagues are often shocked, uncomfortable, and unsure how to respond. This is accompanied by the dilemma of establishing a supportive and inclusive work environment while maintaining a therapeutic

relationship with patients. Practical strategies for navigating these situations are lacking. Methods: A literature review of common scenarios faced by BIPOC physicians and strategies for responding to discrimination in the workplace was conducted. The most common encounters were classified into three categories: discriminatory statements, discriminatory requests, and mistaken identity. Algorithms and scripts were developed using evidence-based strategies and direct input from affected physicians at our institution. Our model approaches this problem similar to a “code” as it is also sudden, emotional, and high-stakes. By classifying the type of discrimination encountered and following the appropriate steps along with specific, practicable language, an individual can navigate common scenarios faced by BIPOC physicians algorithmically. This model was presented in a faculty development workshop and participants engaged in role-playing scenarios. Efficacy of the algorithms and workshop were measured by post-workshop surveys. Results: The workshop was attended by 42 participants. Post-workshop surveys found that 100% of participants (n=21) intend to make changes to their clinical practice in response to the workshop and 93% (n=15) will use the algorithms in the future. Conclusions: The workshop and algorithms were well-received with all participants intending to change to how they respond to discriminatory statements from patients and families. The “code” model is an effective way of navigating these distressing situations. Future work includes a three-month follow up survey to measure the use and long-term efficacy of the algorithms in clinical practice. We will continue to incorporate participant feedback into our model and hold additional workshops.

PEDIATRIC EQUITY AND ADVOCACY RESIDENT LEARNING SERIES - NEEDS ASSESSMENT

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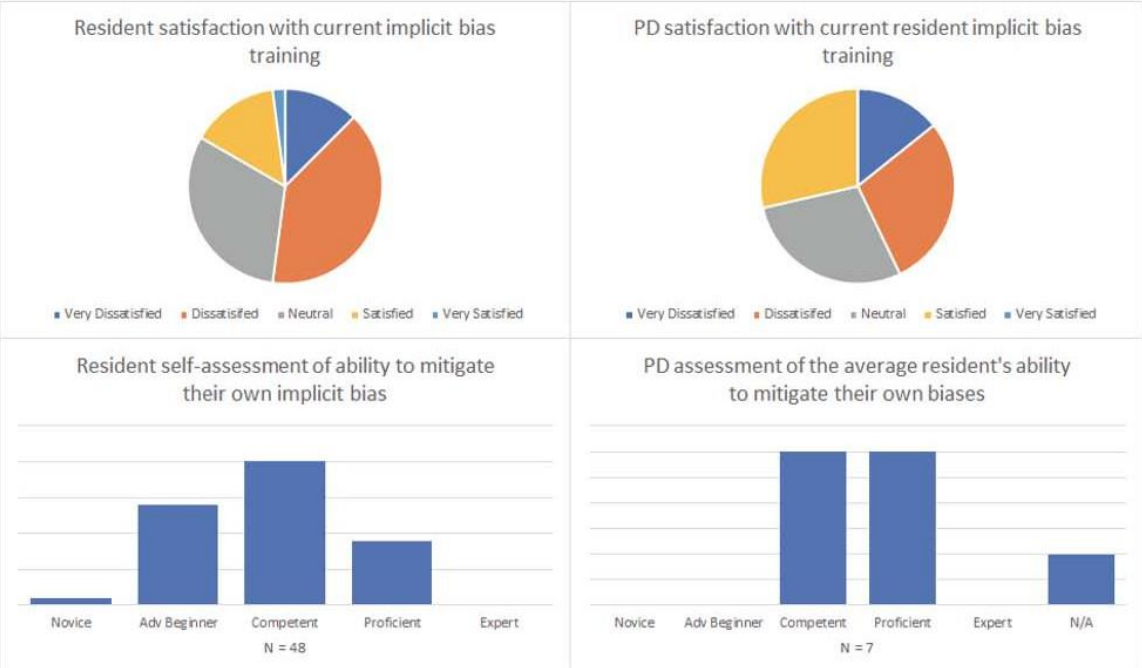
Background: While pipelining programs and changes in recruitment culture can lead to meaningful changes in our field's diversity, implicit bias (IB) training can improve cultural competence and patient outcomes for providers already in the field. Evidence suggests people must be aware of and concerned about the consequences of their biases to try to mitigate them.[1] When individuals believe they have acted with bias, studies show those who are opposed to prejudice are motivated to inhibit their expression.[2-4] **Objectives:** Our study aims to establish that multi-modal, longitudinal education for residents is needed and can help mitigate IB by providing: 1) knowledge of IB and their consequences in the US healthcare system via virtual reality simulation, team-based learning, and workshops, 2) awareness of one's own biases via completion of the Implicit Association Test, guided self-reflection, and group debriefing, and 3) skills to mitigate these biases in patient care and the workplace in order to replace biased responses with equitable and culturally-competent responses. **Methods:** Residents and program directors (PDs) at Nationwide Children's Hospital were sent an anonymous, electronic needs assessment survey to determine if residents in our program were being educated on these topics and if this education was deemed as sufficient for practice after training. Descriptive statistics were used to analyze responses. **Results:** The needs assessments revealed: 1) A minority of residents reported previous formal training on IB. 2) A majority of residents and PDs were less than satisfied with the current training on IB that residents receive. 3) A majority of PDs and residents rated the average current trainee at our institution as less than proficient in mitigating their IB. **Conclusions:** We identified a need for further resident education and training to improve trainees' knowledge, awareness, and skills in addressing and mitigating IB to provide culturally competent care.



PEDIATRIC POINT OF CARE ULTRASOUND RESIDENCY CURRICULUM

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Background: Mounting evidence supports the use of point of care ultrasound (POCUS) in children to improve outcomes. Pediatrics has been relatively late to adopt POCUS and finds itself looking to train a future generation of clinicians. The UNC Pediatric Residency has identified the need for more formal training and describes a novel POCUS curriculum here.

Objective: To create a pediatric resident curriculum which provides the opportunity to improve

Table 1: Resident POCUS Confidence Levels (Self Evaluation Scale 0-100)

Identification Skill	Pre (N=26)	Midpoint (N=7)	p value
Pericardial Effusion	28.69	44.29	0.06
Decreased EF < 40%)	28.58	40.29	0.13
IVC Size Variation	28.69	47.86	**0.05**
Lung Interstitial Fluid	23.62	42.86	0.06
Lung Consolidation	26.31	49.00	**0.04**
Pleural Effusion	27.69	53.71	**0.02**
Pneumothorax	31.92	58.71	**0.01**
Ascites	29.62	39.29	0.20
Cellulitis	26.88	36.57	0.15
Abscess	37.08	46.29	0.18
Lower Extremity DVT	17.96	23.86	0.22
Severe Hydronephrosis	28.73	31.43	0.37
Large Knee Effusion	22.96	30.71	0.16

POCUS Integration Skill	Pre (N=26)	Midpoint (N=7)	p value
US Guided IV	23.42	42.14	**0.05**
US Guided LP	15.88	18.86	0.36
Evaluate Hypotension	22.04	37.29	0.09
Evaluate Hypoxia/Dyspnea	18.23	41.29	**0.004**
Evaluate Cause of AKI	14.77	25.86	0.07

Table 2: Yearly Curriculum Outline

Curriculum Outline		
Session		Topic
1	Lab	Intro to Ultrasound & Knobology
2	Lab	Abdominal Images
3	Virtual	Abnormal Abdominal Image Review
4	Lab	Ultrasound Guided PIV Placement
5	Lab	Lung Ultrasonography
6	Virtual	Abnormal Lung Image Review
7	Lab	Cardiac Ultrasonography
8	Virtual	Abnormal Cardiac Image Review
9	Lab	Ultrasound Guided Lumbar Puncture
10	Lab	Ultrasound Guided Central Venous Line Placement
11	Lab	Knee, Skin, and Soft Tissue
12	Virtual	MSK, Skin, Soft Tissue Abnormal Image Review
13	Virtual	Ultrasound Use in the NICU
14	Lab	Mega-SIM Integration Exercise

confidence in the use of POCUS for various clinically important indications. Methods: The curriculum is designed as a hybrid of hands-on POCUS labs and virtual ultrasound image reviews. Hands-on sessions

are conducted in a reverse-classroom fashion with video-based lectures to view prior. The virtual reviews address common abnormal ultrasound image findings. A pre-curriculum knowledge and comfort assessment was completed by residents prior to starting the course. At the midpoint, residents were asked to re-evaluate their confidence in particular POCUS skills and integration. Results: Resident confidence in identifying IVC size variation, lung consolidation, pleural effusion, and pneumothorax improved significantly. Of the POCUS integration skills assessed, confidence in placing ultrasound guided IVs and evaluating the cause of hypoxia improved significantly as well. At the half-way point in the curriculum, 82% of residents indicated they were either "likely" or "very likely" to use POCUS in their clinical practice. All residents stated the value of POCUS justified any clinical time burden its use entails. Conclusions: Residents who participated in this novel POCUS curriculum demonstrated improved confidence in the skills covered during the time surveyed. Limitations include resident inability to attend sessions and limited survey responses. Despite these common issues that are inherent to residency training, this curriculum has provided an excellent starting point to formal POCUS training at our institution. This type of curriculum is novel to pediatric residencies and hopefully describing our experience can help other programs reap the profound benefits for their trainees and patients.

PEDIATRIC RESIDENT NEEDS ASSESSMENT ON CULTURAL HUMILITY TRAINING

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Background: Lack of understanding of socio-cultural factors and skills to address negative behaviors can contribute to culturally ineffective healthcare & worse health outcomes. Equipping residents with knowledge & skills to advance cultural humility is important given the diverse population. Objective: Conduct a needs assessment of pediatric residents on knowledge, attitudes, & skills to guide development of a cultural humility curriculum. Methods: Our resident Diversity, Equity, & Inclusion Committee performed a literature review; no relevant validated tool was found. Key stakeholder interviews were conducted to determine perceived strengths & gaps. A targeted needs assessment was developed. IRB approval was obtained; survey was emailed to residents from categorical & combined pediatrics programs in Fall 2020 through program coordinators. The survey covered knowledge (27 items), attitudes (24), and skills (20) related to structural competency, attitudes & self-reflections, interpersonal relationships & communications skills, culturally sensitive healthcare, & community engagement. Questions were scored on a 1-6 Likert scale. Data is presented as means +/- SD. Results: Survey response rate was 38% (n=39). The quality of diversity training in residency was rated as 3.38 +/- 0.91. Table 1 outlines key results. Residents expressed high levels of self-awareness of their identity, privileges, & biases (scores >4.0); however, there were knowledge deficiencies in social determinants of health & impact on health of Milwaukee children (scores <4.0). They were less comfortable navigating ethical dilemmas with families, as well as working with families/staff to address & intervene on microaggressions (scores <4.0). Conclusions: The needs assessment provided topics to advance a cultural humility curriculum development, including strengths, disparities, & unmet needs for medically underserved patients in Milwaukee; trainee & institutional bias; skill development to address bias & inform workplace interactions. Quarterly evaluations will assess resident acquired knowledge & behavior change associated with implemented curricula. This tool could be adapted for programs to address local resident needs for cultural humility knowledge and skills.

Core Pillars	Survey Topic	Mean ± SD
Structural Competency	History of the city of Milwaukee and its impact on health	3.00 ± 1.21
	Healthcare delivery challenges in under-resourced communities in Milwaukee	3.38 ± 1.07
	* Impact of access to education on the health of children in Milwaukee	3.70 ± 1.66
	* Impact of socioeconomic index on the health of children in Milwaukee	3.51 ± 1.44
	* Impact of family unemployment on the health of children in Milwaukee	3.11 ± 1.25
	* Impact of housing insecurity on the health of children in Milwaukee	3.35 ± 1.46
	* Impact of food insecurity on the health of children in Milwaukee	3.49 ± 1.59
	* Impact of environmental safety on the health of children in Milwaukee	3.22 ± 1.34
	* Impact of substance use on the health of children in Milwaukee	3.54 ± 1.33
Interpersonal Relationship & Communication Skills	Comfort navigating the conflicts that may arise when patient/family beliefs contradict evidence-based medicine	3.64 ± 0.95
	Comfort navigating ethical dilemmas that may arise from patient/family beliefs	3.69 ± 0.97
	Comfort addressing a family who makes derogatory comments about your personal identities or those of a colleague	3.28 ± 1.26
	Comfort treating a family who makes derogatory comments about your personal identities or those of a colleague	3.28 ± 1.07
	Comfort working with a colleague who makes derogatory remarks about minority patients	2.44 ± 1.59
	Comfort educating a colleague who makes derogatory remarks about minority patients	3.22 ± 1.44
	Comfort responding to microaggressions against you, a patient, or a colleague	3.14 ± 1.46
Culturally Sensitive Healthcare	Demographics of diverse groups in Milwaukee	3.19 ± 1.18
	Sociocultural characteristics of diverse populations in the United States	3.57 ± 0.89
	Health risks and disparities experienced by diverse groups in Milwaukee	3.32 ± 1.12
	Health risks and disparities experienced by immigrant populations	3.28 ± 0.97
	Health risks and disparities experienced by LGBTQ youth	3.51 ± 1.24
	Possible medical therapy for youth who identify as transgender or genderqueer/fluid	2.95 ± 1.29
	Health risks and disparities experienced by foster youth	3.43 ± 1.08
Community Engagement	Community-based resources available to address patient/ family health needs	3.11 ± 1.16
	Institution-based resources available to address patient/ family health needs	3.00 ± 1.14

Table 1: Targeted areas from resident needs assessment, based on mean score <3.75. No area under fifth pillar of Attitudes & Self Reflections were <4.0. * denotes knowledge areas related to social determinants of health in Milwaukee. SD= standard deviation

PEDIATRIC RESIDENTS AS POLITICAL ACTORS: UNDERSTANDING TRENDS IN CIVIC ENGAGEMENT OVER 8 YEARS

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Background: The last decade saw an evolution in the way physicians view their dual roles as professionals and as patient advocates; increasingly, pediatricians have assumed greater responsibility for addressing health-related matters beyond providing bedside care. The ACGME mandates that accredited pediatrics residencies provide curricula on advocacy and community pediatrics, yet few programs provide specific training regarding the pediatricians place within the governmental and non-governmental agencies responsible for crafting healthcare policy. Building on our own prior work, we sought to evaluate trends over eight years in pediatric trainees interest in civic engagement and future plans for careers in advocacy. Objectives: This study aimed to assess pediatric residentspractices and attitudes regarding civic engagement. Methods: This was a descriptive study. We solicited and compared responses from all pediatric residents at our freestanding childrens hospital across three national election cycles. Data was collected via anonymous electronic survey in 2012, 2016, and 2020.

Changes over time were compared using a Cochran-Armitage test for trend followed by Chi squared or Fischer's exact test for pairwise comparisons when appropriate. Results: There were 97, 129, and 101 respondents in 2012, 2016, and 2020, respectively. There was a significant positive trend in the proportion of residents registered to vote (p= 0.5) and who knew the location of their polling place (p<0.0001). In addition, a significantly greater proportion of residents reported that they had voted in the preceding local and midterm elections (p<0.0001). Across the study period, there was a significant increase in the proportion of residents who indicated that it is important for pediatricians to vote with patientsinterests in mind (p<0.001), and for pediatricians to be involved in legislative and advocacy organizations that influence healthcare policy (p<0.001). Conclusion: Amidst an uncertain political climate, pediatric trainees increasingly envision themselves as actors on the healthcare policy stage. These data highlight an opportunity for pediatric training programs, as well as national organizations (e.g. APA, AAP) to enhance curricula and opportunities to prepare trainees to become effective leaders in advocacy and policy at the local, state, and federal levels.

Table 2. Resident Historic Voting Practices

	Overall Cohort	Year that Survey was Administered			
	Number (% of Respondents)	2012	2016	2020	p-value
Voted in Last General Election	**322**	**94**	**127**	**101**	
Yes	286 (88.8 %)	84 (89.4 %)	106 (83.5 %)	96 (95.05 %)	0.189
No	36 (11.2 %)	10 (10.6 %)	21 (16.5 %)	5 (4.95 %)	
Voted in Last Midterm Election	**195**	**94**		**101**	
Yes	115 (59 %)	41 (43.6 %)	—	74 (73.27 %)	**< 0.0001**
No	80 (41 %)	53 (56.4 %)		27 (26.73 %)	
Voted in Last Local Election	**195**	**94**		**101**	
Yes	71 (36.4 %)	13 (13.8 %)	—	58 (57.43 %)	**< 0.0001**
No	124 (63.6 %)	81 (86.2 %)		43 (42.57 %)	

Table 3. Resident Attitudes and Future Plans Regarding Civic Engagement

	Overall Cohort	Year that Survey was Administered			
	Number (% of Respondents)	2012	2016	2020	p-value
How important is it for physicians to vote with their patients' interest in mind?	**188**	**92**		**96**	
Not at all / Slightly Important	11 (5.8 %)	10 (10.9 %)	—	1 (1 %)	**< 0.001**
Moderately Important	36 (19 %)	24 (26.1 %)		12 (12.5 %)	
Quite / Strongly Important	141 (74.6 %)	58 (63 %)		83 (86.5 %)	
How important is it for physician-trainees to take time from their patient-care duties to vote?	**219**	**92**	**127**		
Not at all / Slightly Important	11 (5.8 %)	3 (3.3 %)	8 (6.3 %)	—	0.265
Moderately Important	23 (12.2 %)	7 (7.6 %)	16 (12.6 %)		
Quite / Strongly Important	185 (97.9 %)	82 (89.1 %)	103 (81.1 %)		
What percentage of non-clinical time do you think the average academic pediatrician spends working with governmental or non-governmental agenices that influence healthcare policy?	**283**	**92**	**96**	**95**	
< 30%	272 (96.1 %)	90 (97.8 %)	89 (92.7 %)	93 (97.9 %)	0.461 [a]
30-50%	8 (2.8 %)	1 (1.1 %)	5 (5.2 %)	2 (2.1 %)	0.232 [b]
> 50%	3 (1.1 %)	1 (1.1 %)	2 (2.1 %)	0 (0 %)	0.186 [c]
					0.513 [d]
As an attending, what percentage of your non-clinical time do you plan to spend working with governmental or non-governmental agencies that influence healthcare policy?	**283**	**92**	**96**	**95**	
< 30%	252 (89 %)	89 (96.7 %)	80 (83.3 %)	83 (87.4 %)	0.968 [a]
30-50%	22 (11.6 %)	2 (2.2 %)	9 (9.4 %)	11 (11.6 %)	**0.0093** [b]
> 50%	9 (4.8 %)	1 (1.1 %)	7 (7.3 %)	1 (1.1 %)	0.093 [c]
					0.041 [d]
How important do you think it is for a pediatrician to be actively engaged in working with governmental or non-governmental agencies that influence healthcare policy?	**283**	**92**	**96**	**95**	
Not at all / Slightly Important	37 (13.1 %)	22 (23.9 %)	3 (3.1 %)	12 (12.6 %)	**0.0002** [a]
Moderately Important	76 (26.9 %)	36 (39.1 %)	18 (18.8 %)	22 (23.2 %)	**< 0.0001** [b]
Quite / Strongly Important	170 (60.1 %)	34 (37 %)	75 (78.1 %)	61 (64.2 %)	**0.0268** [c]
					0.0009 [d]

a Reflects chi squared analysis and Cochran-Armitage test for trend to determine the effect of the year that the survey was administered to the distribution of responses.
b Reflects pairwise comparison using chi squared analysis and Fischer's exact test following the Cochran–Armitage test for trend (2012 v. 2016).
c Reflects pairwise comparison using chi squared analysis and Fischer's exact test following the Cochran–Armitage test for trend (2016 v. 2020).
d Reflects pairwise comparison using chi squared analysis and Fischer's exact test following the Cochran–Armitage test for trend (2012 v. 2020).

PHYSICIANS BURNOUT: A FIRST STEP TO DEVELOPMENT OF A WELLNESS CURRICULUM

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Background: Prevalence of burnout among physicians is a critical issue impacting all career levels. Participation in wellness programs may mitigate burnout. Online physician wellness activities i.e., coaching are offered at a free-standing children's hospital in the Midwest USA. These programs are well received, but there is no specific curriculum addressing physicians' wellness needs within the Division of General Academic Pediatrics (GAP). In designing a meaningful program, we conducted a needs assessment to gauge GAP physicians' current involvement in wellness activities and participation challenges. Objective: Identify a framework and core curriculum leading to developing and implementing an impactful wellness curriculum for GAP physicians. Methods: This study used a discrepancy-based needs assessment to get data from GAP physicians at Children's Mercy Kansas City (CMHK) about wellness activities. We developed a survey with sections about wellness activities (7 items) and demographic information (6 items). We piloted the survey with 16 academic pediatricians outside the Division to assess the items' clarity. The survey was put on REDCap and sent to GAP physicians with 6 reminders sent between July-October 2020. Descriptive statistics: frequencies, percentages, means and standard deviations were used to analyze the data. We obtained Institutional Review Board approval from CMHK. Results: Of 46 GAP physicians surveyed, 24 (52%) completed the survey. Twenty-one (87.5%) physicians participated in weekly wellness activities with 13 (54%) participating more than 3 times weekly. Barriers to participation included time (96%), clinical duties (91%) and personal responsibilities (81%). GAP physicians preferred wellness activities such as mindful thinking (81%), meditation breaks (70%), microlearning with mobile devices (68%) and mid-day fitness activities (65%). Conclusion: Our study results provided useful information about desired wellness activities and potential barriers that may affect GAP physicians. We plan to use these findings when designing wellness curriculum in the context of instructional design and content selections.

PILOTING A HYBRID-VIRTUAL AND IN-PERSON MOCK CODE FOR PEDIATRIC RESIDENTS DURING COVID 19 PANDEMIC

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Background: The COVID-19 Pandemic has significantly impacted pediatric graduate medical education. Like other institutions, Zuckerberg San Francisco General Hospital has seen a notable decline in outpatient and inpatient pediatric encounters compared to monthly averages in 2019. Simulation-based mock codes have been shown to improve patient outcomes and pediatric resident confidence, particularly in their resuscitation skills. However, CDC guidelines recommending social distancing have led to unprecedented challenges in creating safe learning environments across clinical settings, including simulation-based scenarios. To our knowledge, there are no publications on modified mock codes that follow social distancing guidelines. Objective: Pilot a mock code that follows social distancing guidelines and maximizes learner participation. Methods: Building on our existing perinatal mock code model, we used an iPad to broadcast a live feed of the mock code via Zoom to online learners. One intern and 1 senior resident were selected to run the neonatal code along with 1 bedside nurse, 1 attending, and 1 chief resident moderating. Another facilitator ran the Sim-Baby to reflect interventions in real time. An attending and a chief resident moderated on Zoom to facilitate the experience for online participants. The debrief took place online, with both in person and remote

learners participating via Zoom. Results: We used an anonymous online survey to collect data from participants. About 60% of respondents (N=6) indicated the mock code enhanced their knowledge on this topic. Student observers generally graded their learning experience lower than residents. Participants reported feeling safe while taking part in the mock code. Conclusions: Using a model that includes in person and virtual components maximizes learner participation without compromising in person simulation and hands-on skills required to perform high quality neonatal resuscitation. Future directions include focusing on enhancing the experience of more junior learners, such as medical students, who are assigned the remote observer role.

PROMOTING DIVERSITY THROUGH A PEDIATRIC VIRTUAL ROTATION FOR 4TH YEAR MEDICAL STUDENTS

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BACKGROUND To promote the growing need to improve diversity in healthcare, our department has historically offered two scholarships for visiting students who are underrepresented in medicine. Due to COVID-19 restrictions, we replaced this in-person opportunity with a virtual rotation. To our knowledge, this curriculum was among the first of its kind. OBJECTIVES The primary goal was to provide a virtual rotation for students interested in pediatrics, particularly those underrepresented in medicine. The course was designed to enhance student knowledge and confidence in high-yield, weekly themes: Physician Burnout, Surviving Inpatient Pediatrics, Communication Skills, and Challenges for Minorities in Medicine. METHODS The curriculum required 35-40 student hours per week, with 5-6 hours of live sessions facilitated by faculty or residents. Asynchronous activities included pre-recorded lectures and supplemental materials. Students attended an average of 10 hospital quality/safety meetings per month and daily resident didactics, where each student delivered a presentation that aligned with rotation themes. RESULTS 11 of 22 participating students were from backgrounds underrepresented in medicine. Pre- and post-rotation assessments revealed average score improvements of 30% in content knowledge and 17% in Likert-measured confidence levels. Qualitative comments highlighted that weekly themes of Communication Skills and Challenges for Minorities in Medicine addressed gaps in their current medical education, and 55% of student presentations addressed healthcare disparities. Student feedback was positive for rotation content and organization. CONCLUSION Due to COVID-19, we replaced an in-person scholarship program with a virtual rotation, thereby increasing exposure from two to eleven students who are underrepresented in medicine. This virtual rotation provides a feasible platform for medical students to connect with pediatric residency programs that offer a similar curriculum. Virtual rotation opportunities for diverse students could positively impact program recruitment in the future and will need to be studied.

REFLECTING ON SOCIAL DETERMINANTS OF HEALTH TRAINING THROUGH THE LENS OF SOCIAL JUSTICE

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Background: Resident continuity clinic (CC) sites are traditionally in under-resourced communities. Residents have limited knowledge of barriers to care and community level assets in these areas.To improve this knowledge, a windshield survey (WS), a visual assessment from a car to develop an overview of community characteristics, was incorporated into intern orientation. Methods: During orientation, interns completed a WS in the community surrounding their CC using a template which included questions on: quality and location of housing, grocery stores, pharmacies, schools, public

transportation, and green spaces. Small group virtual debrief sessions were led by faculty facilitators. Sessions were reviewed for feedback related to the residents' learning experience. Residents completed an evaluation of the session. Results: 65 interns completed WSs of 10 different CC sites,however 69 post-evaluation responses were obtained, indicating duplicate responses. Most recommended the activity for next year's orientation (likely/extremely likely;92.8%,n=64). Themes from analysis of debrief comments included increased awareness of social factors and empathizing better with patients. Other themes recognized the limits of what can be gained solely from observation and an unease with feeling like this could lead to judgements or assumptions about communities. Conclusions: The activity helped interns recognize social and community factors that may affect patients. Concerns arose related to how pure observation could lead to assumptions about a community. Future activities should address this and ensure it does not reinforce biases. Including open discussions about these concerns can foster an awareness of common social inequities.

RESIDENT INDEPENDENT ROUNDS: HOW DO FAMILIES PERCEIVE TEAM COMMUNICATION?

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Resident independent rounds, in which family-centered rounds are conducted without the attending physician, is a model used by inpatient teaching teams to increase resident autonomy. At our institution, weekly resident independent rounds were implemented in July 2020 on hospital medicine services. Although benefits of this rounding model on resident education have been described, its impact on family perception of team communication has not been previously explored. The objective of this study was to compare family perception of team communication between resident independent rounds and traditional rounds at an academic children's hospital. We conducted a 5-question paper survey using a 4-point Likert scale, modified from the Pediatric Inpatient Experience Survey, focusing on team communication during rounds with a convenience sample of families of children admitted to hospital medicine services (September-December 2020). Surveys were administered two days per week (one day following resident independent rounds/one day following traditional rounds) to one patient family member. Data (mean Likert scores) from families who experienced the two rounding structures were compared with the paired or independent t-test. A total of 32 families (67% mother, 18% father, 13% patient, 2% other guardian) completed 48 surveys. All invited families participated. For 16 families who experienced both rounding structures, team communication was positive. Effectiveness of team communication about their child's condition (3.8 vs 3.6, P=0.50) and treatment plan (3.7 vs 3.6, P=0.75) were similar between resident independent and traditional rounds respectively. Families were generally not confused from being told conflicting information by different doctors (3.8 independent rounds vs 3.6 traditional rounds, P=0.43). Following resident independent rounds, compared to traditional rounds, families felt similarly well informed about their childs status (3.8 vs 3.7, P=0.2) and included in shared decision-making (3.7 vs 3.9, P=0.62). For 16 additional families who experienced solely one rounding format (n=3 resident independent rounds, n=13 traditional rounds), team communication was also positive without significant differences in outcome measures. In conclusion, family perception of team communication was similarly positive between both rounding structures. Further work is needed to better understand how residents and attending physicians optimize their own communication with families on days when teams conduct resident independent rounds.

RESIDENTS WANT DISASTER MEDICINE TRAINING: NON-VIRTUAL PREFERRED

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Background: Disaster medicine training is established in emergency medicine residency curricula, but a known deficit in other residency programs. There is a necessity for disaster education, elucidated by the COVID-19 pandemic, which highlighted disasters are not theoretical and can affect every residency specialty. Objective: Assess the opportunities that exist impacting residentsmotivations and abilities for disaster preparedness education using the Influencer Change model of personal, structural, and social domains. Methods: Questionnaire consisting of free-response and multiple-choice queries distributed to pediatric residents at tertiary care center in spring of 2020. Questions assessed demographic data, self-reported disaster medicine competencies, and the motivations and abilities that exist affecting residents ability to learn based on Influencer Change framework. Small group academic session then performed with follow-up survey to analyze effectiveness of education. Results: Surveyed 62 residents with participants from each PGY level, with 9.7% having experience with a disaster event prior to COVID-19. We found that 46.8% have had less than 1 hour of previous disaster training, however, 96.8% were interested in education as part of their curriculum. Residents noted the most effective learning opportunities occurred during simulation (62.9%) with their peers (80.6%), aligning most consistently with structural and social domains. Table-top simulation session was attended by 18 residents (9 virtually, 9 in-person) with improvement ($p<0.05$) in self-efficacy scores for patient care (3.0 to 5.8) and triage (3.6 to 5.7). During follow-up survey, 88.9% of in-person subset mentioned effectiveness was due to in-person interactions/simulation, meanwhile 66.7% of virtual subset noted education was hindered by lack of in-person interactions/technical concerns. Conclusions: Residents are enthusiastic to close the educational gap of disaster medicine, but stressed that although virtual education can provide a foundation, in-person simulation is preferred for effective training.

SICK OR NOT SICK: TEACHING RAPID ASSESSMENT OF PATIENT ACUITY TO RESIDENTS IN THE PEDIATRIC EMERGENCY DEPARTMENT (PED)

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Background: Rapid assessment of high-acuity, undifferentiated illness is challenging for trainees. Creating opportunities to refine illness scripts early in training can enhance decision making in the PED. Little information exists on how to teach skills of rapid assessment, triage, and timely intervention. Objective: To develop and initiate an educational series introducing PED scripts to trainees. Methods: 9 novel cases were presented in rotating, monthly, 30 minute sessions in the ED or during morning report (Table 1). In groups, trainees obtained a history and physical from faculty preceptors. For each 5-minute case, goal endpoints were to pause and identify needed intervention(s) (“sick” cases) or complete the history (“not sick” cases). Debriefing and high-yield management discussion ended each session. Residents were surveyed to determine preferred format, satisfaction, and perceived effectiveness, along with qualitative feedback regarding application to clinical practice. Results: 31/72 residents completed the survey (7 interns, 24 post-graduate year 2 or 3). Trainees preferred a small group format, allowing collaborative interviewing. 29/31 (93.5%) respondents were

Table 1: "Sick or Not Sick" Case Summary

Topic	Chief Complaint	"Sick" or "Not Sick"	Case Endpoint	Objective
Respiratory Distress	Difficulty breathing	"Not Sick"	Undress baby to perform full exam	Rapid assessment of respiratory status
Testicular torsion	Abdominal pain	"Sick"	Ask about testicular symptoms and "perform" exam	Consideration of emergent complaints other than stated chief complaint
Febrile Neonate	Fussiness in neonate	"Sick"	Determine vital signs, initiate sepsis workup	Assessment of vital signs, pausing history to begin workup
Arm Injury	Arm pain	"Not Sick"	Remove splint to perform neurovascular exam	Pausing history to perform pertinent exam
Abdominal Trauma	Abdominal pain	"Sick"	"Undress" for exam, begin trauma workup	Pausing history to perform pertinent exam/begin workup
Neck Injury	Closed head injury	"Sick"	Perform c-spine exam and/or place c-collar	Pausing history to perform pertinent exam/begin workup
Bell's Palsy	Facial droop	"Not Sick"	Perform appropriate neuro exam	Pausing history to perform pertinent exam/begin workup
Ingestion	Suicidal thoughts	"Sick"	Ask about recent drug use/ingestions	Taking thorough history in high-risk patients
Asthma	Chest pain	"Sick"	Perform respiratory exam, order appropriate asthma-related interventions	Pausing history to perform pertinent exam/begin workup, consideration of emergent complaints other than stated chief complaint

satisfied or very satisfied with the sessions. 22/31 (71%) utilized learned skills in a clinical setting. 29/31 (93.5%) and 28/31 (90.3%) found sessions at least moderately effective at improving their ability to identify acutely ill patients (mean Likert score 3.81) and empowering them to discontinue an interview and acutely intervene (mean Likert score 3.97), respectively. Qualitative response themes included reinforcement of clinical skills, improved comfort/confidence with pausing histories and initiating intervention, and particular importance of sessions for interns. Conclusions: This novel educational intervention, with rapid cycle simulated scenarios for structured introduction of illness scripts to trainees, was perceived as effective regarding intervention in acute patient presentations and reinforcement of clinical skills, translating well to patient care.

TEACHING THE PROCEDURE OF COMMUNICATION UTILIZING A MIXED METHODS CURRICULUM

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Background: Clear and compassionate communication is a procedure clinicians frequently have to perform. Akin to other procedures in medicine, difficult conversations require training and practice to develop proficiency. The best methods to ensure feasibility, reproducibility of the training and retention amongst trainees remain unclear. Objective: To develop and study the impact of a mixed methods curriculum amongst pediatric subspecialty fellows. This curriculum combined didactics, role-play, and bedside coaching with the aid of a procedure card. Methods: Phase 1 focused on establishing baseline performance through self-efficacy scores and simulation. Phase 2 involved faculty and fellow education including a didactic, role-play and an introduction of the procedure card. During phase 3, participants were asked to perform procedures (delivering difficult news) with patients and families using the procedure card as a prompt with faculty coaching and feedback. Six months later, participants completed the self-efficacy survey and another simulation session. We compared data from the 2nd simulation to baseline performance. Results: Ten participants completed the study. Likert self-efficacy results revealed an increase in the skill of delivering bad news (3.0 pre, 4.1 post, p = 0.0001), conducting a family conference (2.5 pre, 3.6 post, p = 0.0001) and responding to emotions (3.4 pre, 4.2 post, p = 0.0003). Investigator Likert score assessments of participant performance showed improvement in fellows ability to inform (2.5 pre, 3.9 post, p= 0.0001) and demonstrate empathy (2.7 pre, 3.3 post, p = 0.005). Actor assessment showed improved ability to inform (2.6 pre, 3.9 post, p =

0.0001). 40% of respondents said real time feedback was the most valuable element of the curriculum. Conclusions: In this cohort of pediatric fellows, the use of coaching at the bedside with a procedure card prompt was valued by learners and effective at improving self-perceived and observed communication skills over a six month period. Future research is needed to evaluate modifications to this curriculum to enhance its feasibility.

THE UNINTENDED CONSEQUENCES OF SECURE TEXT MESSAGING SYSTEMS IN HEALTHCARE: A QUALITATIVE STUDY OF PEDIATRIC RESIDENT AND NURSE PERSPECTIVES

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Background: As hospitals shift away from pagers towards secure text messaging systems (STMS), limited research exists on the challenges and unintended consequences of such systems. Preliminary data show that STMS can lead to a dramatic increase in interruptions for providers, which may contribute to medical errors. Objective: To investigate resident and nurse experiences with STMS at a quaternary care children's hospital. Methods: This was an IRB-approved qualitative study with semi-structured focus groups of pediatric residents and nurses at Lucile Packard Children's Hospital Stanford. All pediatric residents and nurses were invited to participate. Data gathering continued until we reached thematic saturation. Sessions were audio recorded, transcribed verbatim, and coded by 2 independent coders. Codes were discussed until consensus was reached. Themes were developed through conventional content analysis using a framework of teamwork, patient safety and clinician wellbeing.

Table 1: participants' demographics

		Residents (n=14)	Nurses (n=21) *
Gender	Female	11	19
	Male	3	1
Age group (years)	18-35	14	10
	36-50	0	9
	51-65	0	1
Resident level of training	PGY1	7	--------
	PGY2	6	
	PGY3	1	
Nurse specialty	Acute care	--------	11
	Critical care		2 NICU, 1 PICU
	Other		1 critical care transport, 1 labor and delivery, 4 unspecified
Duration of STMS use	< 1 year	5	2
	1-2 years	8	5
	> 2 years	1	13

*missing one of the nurses' surveys

Results: In Jan-Feb 2020, 3 resident focus groups (n = 14) and 3 nurse focus groups (n = 21) were held. Using our conceptual framework of teamwork, patient safety, and clinician wellbeing, we identified 6 themes that were centered around the ways in which STMS either positively or negatively impacted each area: 1) STMS facilitate teamwork through their multiple communication modalities and technological features. 2) STMS can negatively impact teamwork by decreasing face-to-face communication and autonomy and through mismatch in expectations regarding response times. 3) STMS promote patient safety through closed-loop communication, ready access to team members, and real-time notifications. 4) STMS can negatively impact patient care and safety through alarm fatigue, interruptions, miscommunications, and misuse of texting for urgent communication. 5) STMS can positively impact clinician well-being through satisfaction and rapport building. 6) STMS can negatively impact clinician well-being through promoting feelings of anxiety and increasing interruptions to patient care and education. Conclusion: STMS in the hospital setting have significant advantages as well as significant drawbacks to teamwork, patient safety, and clinician well-being. With appropriate guidelines and training designed to mitigate the drawbacks, STMS have the potential to be valuable means of communication among healthcare team members. Our data can be used to inform future guidelines and training locally and nationally.

WORKING IN THE PEDIATRIC CARDIAC INTENSIVE CARE UNIT: ARE YOU FEELING UNCOMFORTABLE AND DOES SIMULATION HELP?

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Background: Simulation allows participants to engage in scenarios in a controlled and safe learning environment. Learners can practice resuscitation skills under physiological conditions similar to those encountered in actual clinical practice. This method of training has proven to be effective in multiple disciplines across medicine. Objective: Determine number of pediatric critical care (PCC) programs across the nation that have a cardiac simulation curriculum in place, as well as perceived benefit of said curriculum and the comfort level in managing pediatric cardiac patients, including leading a code. Methods: A 14-question survey was distributed to fellows and advanced practice providers (APPs) in 64 PCC programs across the United States. Demographic data such as program size and the presence of an existing cardiac simulation curriculum was obtained. Using a Likert scale, the comfort level of fellows and APPs had in managing codes and various clinical scenarios such as pre- and postoperative management, arrhythmias, and the need for ECMO, was assessed. A descriptive analysis was then conducted on the data obtained. Results: A total of 102 responses representing 25 institutions across the nation were obtained. The majority of participants (73%) reported having a cardiac simulation curriculum in place, with 98% saying it is or would be beneficial. Most participants reported leading a code 3 times/year or less (83%), and 51% reported feeling "uncomfortable" leading codes. The majority of participants responded feeling "comfortable" in managing cardiac patients preoperatively (68%), postoperatively (65%), and on ECMO/VAD (56%), while up to 40% felt "uncomfortable" managing arrhythmias. Conclusion: Simulation curriculums have proven to be an effective way for trainees to enhance resuscitation skills. Our survey demonstrated that most programs have a cardiac simulation curriculum in place and fellows and APPs find it beneficial. Still, many feel uncomfortable when it comes to leading a code; implementation of a simulation curriculum that focuses on this may be beneficial.

X+Y SCHEDULING IN PEDIATRIC RESIDENCY PROGRAMS: RESIDENT PERCEPTIONS

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Introduction: X+Y scheduling has been implemented and studied in Internal Medicine residency programs with successful outcomes in resident satisfaction, wellness, and continuity with patients. In 2018, 5 programs were approved by the ACGME to pilot this scheduling model in pediatrics. In 2019, 6 additional programs joined as a 2nd cohort. Data from their experience adds to the body of knowledge from the initial cohort. Methods: Six programs in the second cohort implemented X+Y scheduling at their respective sites. Pre- and 12 month post-implementation surveys were distributed to residents at each program using RedCAP or Survey Monkey. Data were analyzed using z tests for proportion differences. Results: 123 out of 206 residents responded to the pre survey and 131 out of 206 residents responded to the post-implementation survey. The following perception outcomes showed significant difference ($p<0.01$) between the pre and post-implementation surveys: the ability to have continuity with patients (16% pre-X+Y to 38% post-X+Y), quality of handoffs affected by clinic scheduling (66% pre to 11% post), and allowing adequate time for teaching on inpatient rotations (22% pre to 67% post). In addition, 78 residents (90.7% of responders to the question) preferred X+Y scheduling and 8 residents preferred a

traditional schedule. Discussion: X+Y scheduling was widely preferred by residents across institutions with perceived improvements in patient continuity, inpatient teaching, and in quality of handoffs. These results are in concordance with those previously presented by the five programs in Cohort 1. The X+Y scheduling method is non-inferior to traditional resident scheduling and has potential to improve resident education.

ZOOM OSCES: VIRTUALLY THE SAME AS THE REAL THING?

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Background: Family-centered communication is a foundation of practicing effective pediatrics. We use objective structured clinical exams (OSCE) to train and assess resident communication skills incorporating Family Faculty (FF), parents of pediatric patients cared for at our children's hospital. We previously showed that inclusion of FF provided valuable feedback to residents. With the onset of COVID-19, we transitioned to a virtual format. Objective: To investigate the impact of a virtual OSCE on perceived learner utility and standardized patient (SP) and FF assessment. Methods: We designed an OSCE where residents disclosed an error to a SP (playing a patients parent). The intern classes of 2019 and 2020 participated in a live and Zoom OSCE respectively. In both cohorts the 10 minute encounter was observed by an experienced clinician (EC), FF, and a facilitator with a 20 minute debrief inclusive of all observers, the SP, and the learner. The SP, EC, and FF completed a behavioral checklist with items rated as not done, partly done or well done, with well-done indicating mastery. Results: 18 interns participated each year. The majority in 2019 & 2020 found the SP interaction (94% & 89%), debrief (100% & 94%), and FF feedback (100% & 94%) to be useful to their practice. We previously reported the overall average % of evaluations reflecting mastery in each core competency was lower as assessed by FF when compared to SP, which was duplicated in the Zoom OSCE: respect and value (52% vs. 67%, $p=0.01$), information sharing (56% vs. 68%, $p=0.002$), participation in care and decision making (52% vs. 78%, $p=0.006$), follow-up (53% vs. 65%, $p<0.001$), and team work (26% vs. 72%, $p<0.001$). Conclusions: Based on perceived learner utility and SP & FF assessment, a Zoom OSCE provided a comparable educational experience to a live OSCE. Our prior data supported inclusion of FF in communication training, though availability of family to participate in didactic and evaluative sessions may limit generalizability. Our current experience suggests virtual OSCEs are a viable alternative to live encounters and may provide a way to more easily partner with families.