



M-3 Scholarship Forum
May 9, 2013





Background

- Group activities have many benefits
- People enjoy group exercise
- A significant number of people drop out of group exercise programs within 3-6 months
- Group cohesion correlates with decreased exercise group drop out rate









ViewSonic

Background: Developmental Delay

- 10-12% of children in the general population are considered developmentally delayed ⁴
- Research on children placed in out-of-home care have found higher rates of developmental delay
 - Rates are between 23% and 61% of children ⁴
 - Methods of detection vary, thus results vary
- Reasons for delay are numerous and multifactorial
 - Unstable home environments /disruption of caregivers
 - Fragmented medical care
 - Abuse/neglect





Evaluation of whiteboard use in a pediatric intensive care unit

Sven Olson¹

Lea Moody¹

David Triscari²

Dr. Matthew Scanlon MD, CPPS²

¹QuIPs Pathway, Medical College of Wisconsin

²Pediatric Critical Care, Medical College of Wisconsin











Session 5 - Medical Carnavalesque

- Understand the purpose of ritual and transformation in medicine, and validate the balance between biomedical reductionism and the practice of humanistic medicine.
- Discuss burnout and physician fatigue
- Physician use of humor as an adaptation tool
- Interact with attending physicians in safe, casual setting to discuss how they specifically have dealt with these issues











TECHNOLOGY TUTORS: THE USE OF EDUCATIONAL TECHNOLOGY TUTORIALS TO PROMOTE ACTIVE LEARNING
Anil Sharma (MS), Amanda Martin (MS), Deborah Simpson, PhD

INTRODUCTION: LECTURES

LECTURE'S ABILITY & CURRENT STATUS

- Support lecture and generally dynamic and enthusiastic communication - by passionate teachers - of the relevant material to a large group of students at one time?
- Dominant teaching method in the first two years of medical education remains lecture-based?

LECTURE'S CHALLENGES

- As a teaching strategy, lectures can be the "least authentic" with respect to the context in which learning occurs and how learners engage with material and information?
- Passive environment: fails to engage a significant number of learners → decreased attendance particularly by students who prefer a more active, stimulating learning environment?
- Educational technologies can "activate" lectures - but require new teaching skills

Needs and Objectives

- Teachers' anxieties and commitments to other MCW missions may limit their abilities to attain the competence and comfort needed to successfully adopt and incorporate educational technologies into their teaching.
- Limited resources/staff available to provide hands-on support/training for teachers to gain competence and confidence consistent with the Discovery Curriculum Faculty Development Workshop emphasis and available hardware/software at MCW, we identified 3 "simple to learn" technologies that would support active student engagement in learning:
 - Smart Podium interactive post displays
 - Audience response systems
 - Podcasts
 - Webinars
 - PowerPoint
- Resources available
 - Engage Clinical Educator Pathway students
 - Students develop and provide tech tutorial sessions for faculty

PURPOSES

- To promote awareness of the various tools and technologies available to MCW educators and learners
- To provide faculty with the necessary knowledge, skills and practice opportunities to support integration of targeted educational technologies into their teaching practices
- To assist with the transition to the Discovery Curriculum and its multifaceted teaching and learning modalities
- To create a more active and engaging learning environment that promotes interaction between faculty and students resulting in:
 - Lectures (and other teaching sessions) that engage students in active participation and promote students desire to attend
 - Students experience the "joy" and "zing" as teachers

METHODS

- Utilize existing DC Technologies Workshop needs assessment completed to prioritize training session development
- Develop competencies for selected educational technologies
- Design competency-based technology training sessions including supplementary reference handout for each technology - see Fig 1 for "SMART Podium: Basics" example
- Pilot training session with course coordinators and faculty
- Obtain pilot participants' evaluation and revise future sessions
- Recruit and train additional student "technology tutors"
- Assess and affirm "technology tutor" competence as technology experts prior to accepting appointments with faculty
- "Technology tutors" work individually with faculty interested in a specific educational technology
- Obtain evaluations from faculty participants and incorporate feedback into future sessions

RESULTS

UNDER CONSTRUCTION

Curriculum for Smart Podium tutorial sessions has been developed and includes supplementary handout (Fig 1), competency-based assessment, and evaluation form. Smart Podium pilot tutorial session evaluations are pending, as sessions are in progress.

CONCLUSIONS AND NEXT STEPS

PRELIMINARY CONCLUSIONS FROM PILOT TUTORIAL PARTICIPANTS

- Recognizing that technologies have the potential to provide a more active learning environment
- Smart Podium perceived to increase interaction with learners while maintaining the efficiencies of lecture-based sessions

MAJOR LIMITATION TO DATE

- Availability and access to technologies to design & implement training sessions due to on-going construction in the building

FUTURE WORK FOR TECHNOLOGY TUTORS PROJECT

- Completion of pilot training sessions for the Smart Podium
- Completion and analysis of tutorial evaluations from participants to inform tutorial revision
- Recruitment and training of first and second year students with full-scale implementation of tutorials
- Application of similar approaches to other key technologies previously identified


REFERENCES

- Geake, M., Vito, D.M., & O'Brien, B.C. (2010). Educating the reform of medical school and residency. San Francisco, CA: AAMC Curriculum Report - Medical School Course Detail (<https://www.aamc.org/~/media/curriculumreport/curriculumreport/ingardiasessionreportfinal.pdf>). Accessed April 23, 2015
- Proffitt, M.J., Alvarado, C., Armstrong, E.G., Auerbach, J., Digen, F., Schwabstein, A., & Vigoren, T.R. (2011). What we know from the neurobiology of learning? Academic Medicine

ACKNOWLEDGEMENTS

The authors wish to acknowledge Drs. Mary Corwin and the Advisory and Strategic Issues (Pathway) Coordinators for their assistance in developing this project. We also wish to thank Dr. Anil Sharma (MS) for his work on the initial pilot session for the Smart Podium.

Fig. 1: Example supplementary reference handout available to tutorial participants during and after the tutorial session for the Smart Podium.



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MEDICAL COLLEGE OF WISCONSIN

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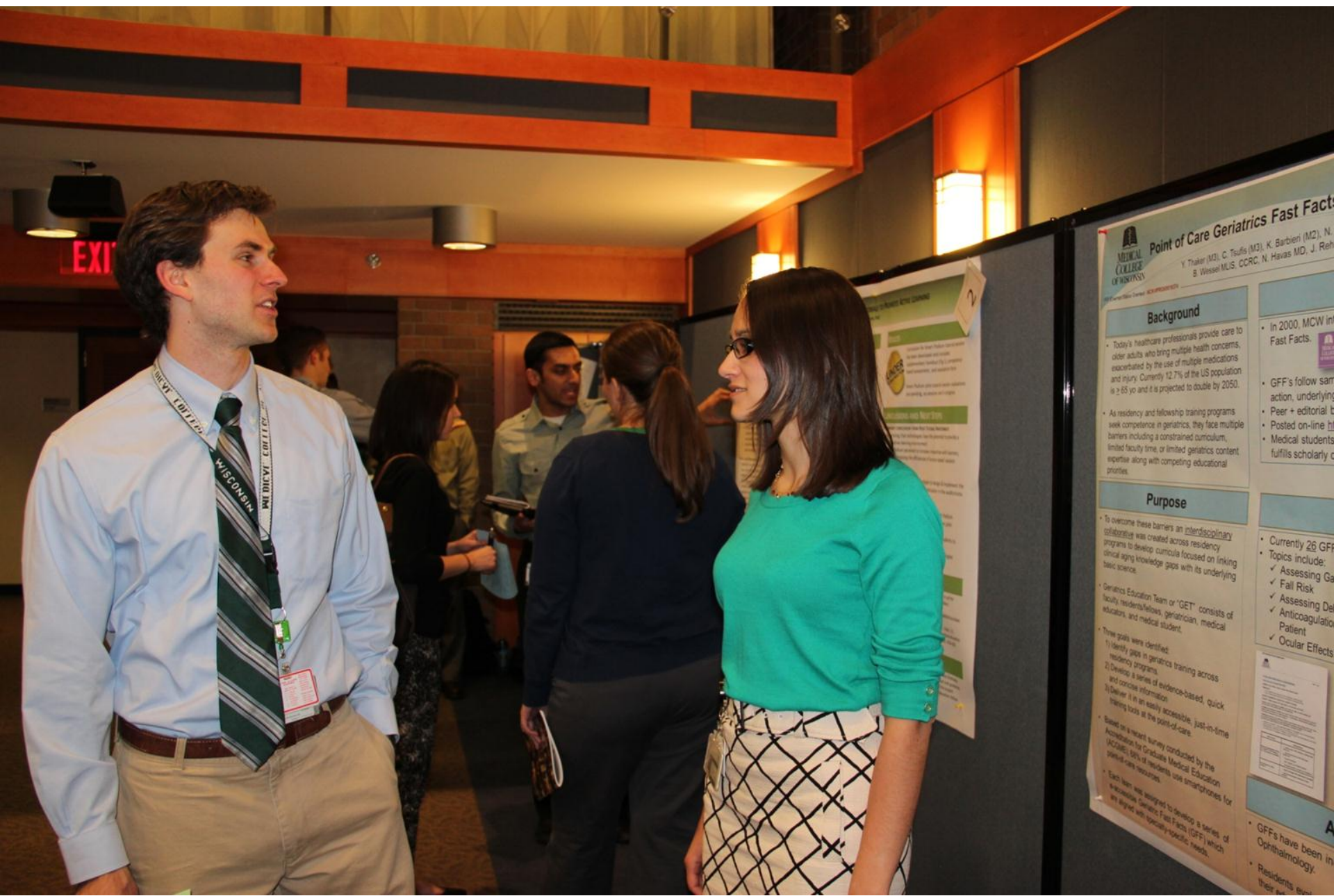
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Point of Care Geriatrics Fast Facts

Y. Traher (M3), C. Touffis (M3), K. Barbieri (M2), N. B. Wissele M.U.S. CCRC, N. Havas MD, J. Rehr

Background

Today's healthcare professionals provide care to older adults who bring multiple health concerns, exacerbated by the use of multiple medications and injury. Currently 12.7% of the US population is > 65 yo and it is projected to double by 2050.

As residency and fellowship training programs seek competence in geriatrics, they face multiple barriers including a constrained curriculum, limited faculty time, or limited geriatrics content expertise along with competing educational priorities.

Purpose

To overcome these barriers an interdisciplinary collaborative was created across residency programs to develop curricula focused on linking clinical aging knowledge gaps with its underlying basic science.

Geriatrics Education Team or "GET" consists of faculty, residents/fellows, geriatrician, medical educators, and medical student.

Three goals were identified:

- 1) Identify gaps in geriatrics training across residency programs
- 2) Develop a series of evidence-based, quick and concise information
- 3) Deliver it in an easily accessible, just-in-time learning facts at the point-of-care.

Based on a recent survey conducted by the Association for Graduate Medical Education (ACGME), 69% of residents use smartphones for patient-care resources.

Each team was assigned to develop a series of concise Geriatric Fast Facts (GFF) which are aligned with specialty-specific needs.

GFFs have been in Ophthalmology.

Residents benefit their patients.

- In 2000, MCW introduced Fast Facts.
- GFF's follow same action, underlying
- Peer + editorial board
- Posted on-line through
- Medical students fulfills scholarly

- Currently 26 GFF
- Topics include:
 - ✓ Assessing Gait
 - ✓ Fall Risk
 - ✓ Assessing Delirium
 - ✓ Anticoagulation Patient
 - ✓ Ocular Effects



GFFs have been in Ophthalmology.

Residents benefit their patients.

Questions in Real Time
 Xu, MD

Results

An OSCE station was developed to evaluate the student's EBIM competency while simulating the stakes of a clinical setting. This station requires the student to conduct a timely and critical literature search then changing disease management accordingly. Thus, this tool allows the instructor to assess whether the student is able to integrate the individual components of evidence based practice into a skill set that can be applied in response to clinical situations.

Conclusions/ Next Steps

- Limitations: OSCE station is not yet validated. It is also unknown what the validity of the literature search station will be compared to the original Fresno test
- Pilot testing to be performed in the future

References

Dortch, A., Shipes, R., Koval, D., Agler, M., E. Sandoz, R., Garavito, C. A. Multi-Faceted Approach to Evidence Based Medicine Objective Structured Clinical Examination (OSCE) Instruction Paper presented at the Annual AAMC Educational Conference, October 10-14, 2010, San Antonio, Texas

Wu, D. Rationale for Using OSCE to Assess Student Competency in Evidence-Based Medicine Education for Health. 2010; 12(1): 1-10

Ramsey, K., Schaller, S. "Real World" Validation of the Fresno Test of Competency in Evidence Based Medicine. BMC. 2003; 129(19): 302.

Tanaka, F., Akashi, T., Sakai, H., Murakami, D. Reliability and validity Testing of Evidence Based Medicine OSCE Station. Fam Med. 2008; 41: 88-91.

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Poster for the American Osteopathic Association (AOA) featuring a collage of images and the text "AMERICAN OSTEOPATHIC ASSOCIATION" and "ADVANCING THE ARTS OF HEALING".



Meningioma with Beva

Andrew DiCicco, Jennifer Connelly

25

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Purpose

This retrospective case series
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Methods

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EXIT

Building a Resilient Blue and Green Infrastructure

Background

- The City of Milwaukee has a long history of investing in infrastructure.
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- The City of Milwaukee has a long history of investing in infrastructure.

Methods

- The City of Milwaukee has a long history of investing in infrastructure.
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- The City of Milwaukee has a long history of investing in infrastructure.

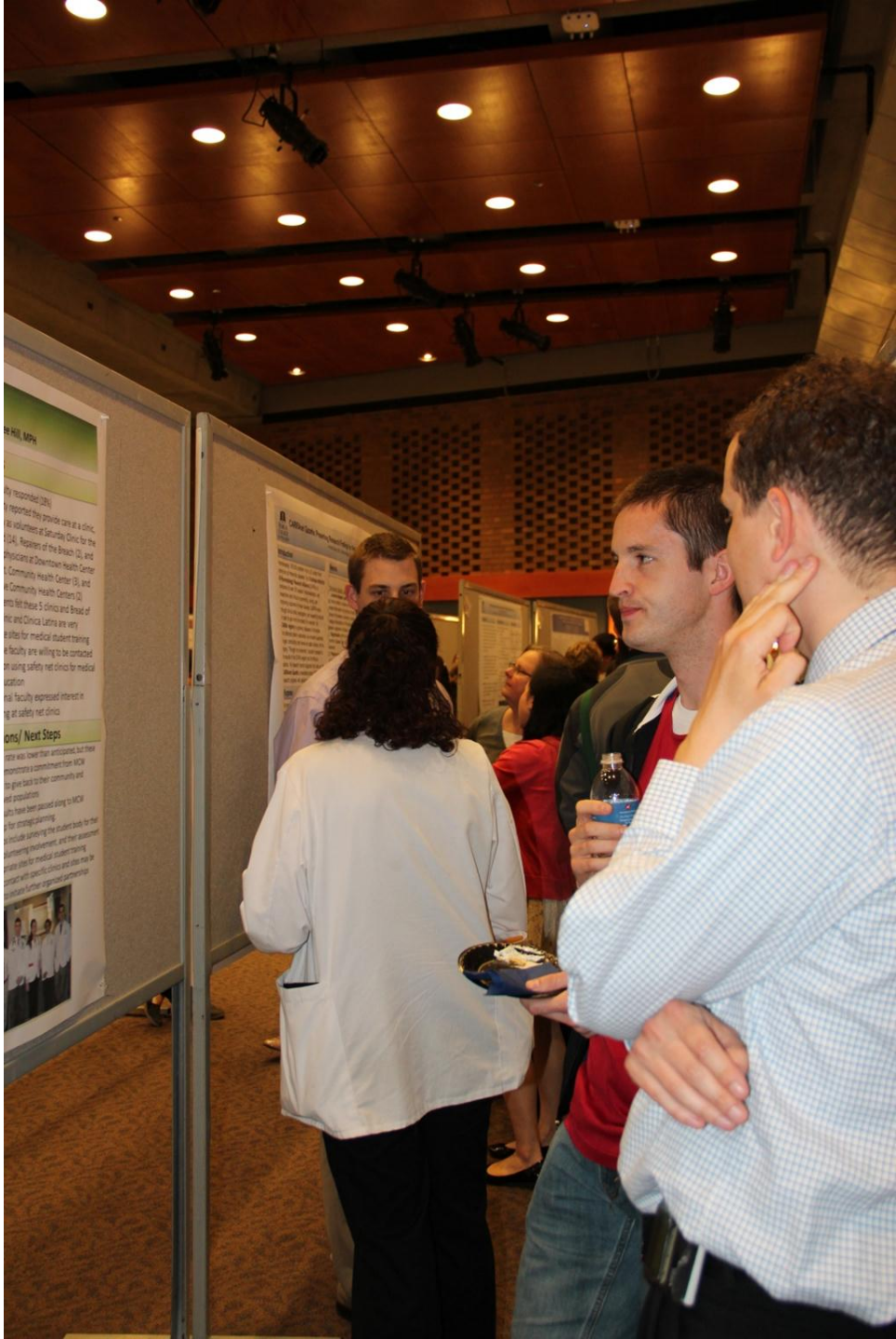
Findings

- The City of Milwaukee has a long history of investing in infrastructure.
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Recommendations

- The City of Milwaukee has a long history of investing in infrastructure.
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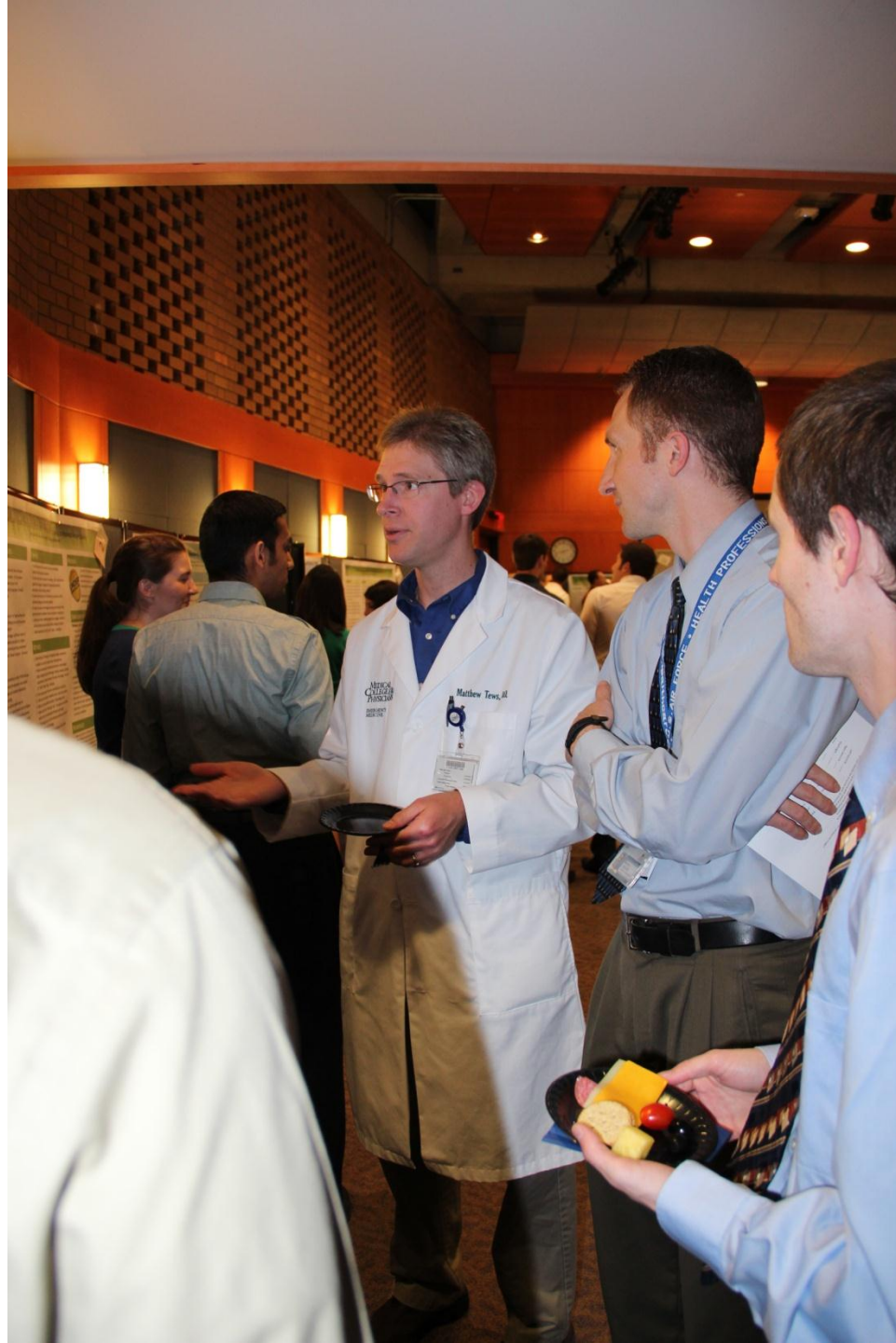
PHH, MPH

My respondent (28%) reported they provide care at a clinic, are volunteers at Saturday Clinic for the 11/14. Respondents of the Branch (3), and physicians at Downtown Health Center & Community Health Center (3), and at Community Health Center (3), and at Community Health Center (3) attend all these 5 clinics and Broad of clinic and Clinical Latins are very a sites for medical student training. Faculty are willing to be contacted or using safety net clinics for medical location. Faculty expressed interest in using safety net clinics.

Conclusions/ Next Steps

While we know more than anticipated, but there is more to do. We need to have a representative commitment from MCH to give back to their community and need populations. We have been passed along to MCH for strategic planning. We need to include sampling the students back for the planning involvement, and then assess the problem sites for medical student training. We need to contact with specific clinics and see how we can make further organizational changes.







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Novel Approach in Burn Donor Site Dressing Using Melolin & Flexgrid

1. Medical College of Wisconsin, 2. University of Washington Dept. of Surgery (Seattle, WA), & 3. Harborview Medical Center (Seattle, WA)

Introduction

Burns are one of the most common forms of trauma. Patients with severe thermal injury are in immediate need of specialized care to reduce morbidity and mortality rates. Burn wounds are typically classified based on the extent of tissue injury as first degree (damage confined to the epidermis), superficial partial thickness (second degree), partial thickness second degree (extension into deep reticular dermis), full thickness third degree (extension through entire dermis) and fourth degree (extension through skin, subcutaneous tissue and into underlying muscle and bone). Proper choice of dressing is of tremendous importance in the care of burn patients. An ideal dressing would be one that would result in least number of complications and one that requires lowest degree of maintenance—resulting in an enhanced rate of recovery, and minimal risks of hyperpigmentation and hypertrophic scar formation.

Methods

In this study, after harvesting skin graft from donor site, two different methods of dressing were selected for the main and control groups. In the control group, traditional dressing was placed on the donor site and compared with the treatment group, dressed with a new dressing consisting of a combination dressing consisting of an absorbent method using a combination dressing (Flexgrid) and a protective transparent film (Melolin) and a protective transparent film (Flexgrid). A total of 107 patients were divided into control and treatment groups randomly. 54 patients were placed in the control group with an average age of 26.5 years and 53 patients were placed in the treatment group with an average age of 25 years. The results of both groups were compared regarding hospital stay time, infection rate, costs, time of epithelialization and cosmetic results.

- Traditional Method: After removing a skin graft with a thickness of 1.25mm of inch, two thin layers of dry gauze are placed on the donor site. The surgeon then straightens the layers and then further places a site. The surgeon then straightens the dressing by using a site. 2 or 3 more dry gauzes are placed on the donor site in a pressure sterile bandage. Using a heat lamp, the second site is dried for a half hour every 4 hours in the next day or two. The donor area is dried and covered with two layers of gauze during the next few days to prevent tampering or wetting if the opportunity is given.
- New Method: After harvesting a graft with a thickness of 1.25mm of inch, a layer of absorbent Melolin is placed on the donor site with a layer of transparent Flexgrid to follow. On the first day, the moist layer of absorbent Melolin is removed and the wound is washed with normal saline. A Flexgrid dressing is placed on the wound and is replaced once every three days. Usually after 8-10 days new epithelium grows and the donor site no longer needs further dressing. At the point the wound site can be treated only with topical Vitamin A/D ointment.

Purpose

Burn donor site care is one of the most important concerns in burn surgery. In the deep burn wounds requiring surgical debridement and semi-thickness grafting are of important determinants of graft donor site healing and quality time. Traditional dressings have some disadvantages, which interfere with epithelial growth and final results. This study evaluated the role of a novel complex dressing in the management of the donor burn site. We evaluated the effectiveness of using a mixed dressing. Melolin is a type dressing composed of two layers. It consists of a non-adhesive, highly absorbent cotton and polyester fiber pad with a hydrophobic backing layer. The polyester fiber has numerous small pores that allow exudates to exit and to be absorbed by the absorbent cotton layer. These small pores, due to their size, allow passage of exudate and water vapor but do not allow introduction of microbial organisms. As a result this dressing does not adhere to the wound site and will not result in any increased trauma to the donor site when replacing Flexgrid a type of semi-permeable transparent film that allows passage of water vapor but is not permeable to water itself, hence it does not adhere to moist surfaces. The unique properties of these two dressings inhibit bacterial entry, resulting in a sterile environment that is resistant to infection.

Results

- Complete epithelialization speed in the treatment group was found to be 81.42% (days 10-15) as compared to the control group (p<0.0001).
- Infection rates were 4% and 2% for the treatment and control groups respectively (p<0.001).
- Hospital stay time in the treatment group was 17.42±2.21 days and in the control group was 20.2±2.12 days (p<0.0001).
- Aesthetic results of the two groups were evaluated by a surgeon using a 4-point scale. Patients in the treatment group were graded as A result, as compared to B result in the control group.



References

1. Park H, DeWitt J, O'Brien J, et al. (2007) A Novel Approach in Burn Donor Site Dressing Using Melolin & Flexgrid. *Journal of Burn Care and Research*, 28(1), 1-5.

2. Park H, DeWitt J, O'Brien J, et al. (2007) A Novel Approach in Burn Donor Site Dressing Using Melolin & Flexgrid. *Journal of Burn Care and Research*, 28(1), 1-5.

3. Park H, DeWitt J, O'Brien J, et al. (2007) A Novel Approach in Burn Donor Site Dressing Using Melolin & Flexgrid. *Journal of Burn Care and Research*, 28(1), 1-5.



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Detection of Pressure Ulcers: Is It an Error of Omission?



Discussion

There is a large discrepancy between the documentation of pressure ulcers. The assumption that lack of physician documentation is an error of omission is not supported by other studies. Documentation, including education regarding the prevalence of pressure ulcers as a patient safety issue, is needed. It is important to remember that pressure ulcers are not always detected at the time of admission, which may have led to the underdocumentation of physician documentation.

Conclusions

The documentation of nurse known pressure ulcers is significantly higher than the prevalence of pressure ulcers.

Research

Future research should focus on training operators and better documentation management. A patient safety tool that prompts the physician to document pressure ulcers as a design feature of the patient care system is needed.

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The detection of pressure ulcers is a critical patient safety issue. This study highlights the significant discrepancy between physician and nurse documentation of pressure ulcers. While nurse documentation captures approximately 85% of known pressure ulcers, physician documentation captures only about 45%. This finding suggests that many pressure ulcers go undetected by physicians, potentially leading to delayed treatment and increased patient morbidity. The study also indicates that physician documentation is often incomplete, even when a pressure ulcer is present. This underdocumentation may be due to a lack of physician awareness, time constraints, or a failure to recognize the signs and symptoms of pressure ulcers. The study emphasizes the need for improved physician education and training regarding the prevalence and detection of pressure ulcers. Future research should focus on developing interventions to improve physician documentation, such as standardized documentation tools and prompts, and exploring the impact of these interventions on patient outcomes.



Blunt Liver Injury Triage: A Retrospective

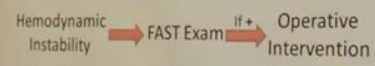
John Weigelt, MD, DVM, MEd
 Medical College of Wisconsin, Froedter



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Introduction

Literature review suggests that patients with blunt abdominal trauma and hypotension unresponsive to fluid replacement should receive a Focused Abdominal Sonogram for Trauma (FAST) exam. The FAST exam is used during the circulatory portion of the primary survey to evaluate for intra-abdominal bleeding. Patients who are hemodynamically unstable during this portion of the evaluation should receive a FAST exam. The exam is considered positive when free fluid is identified in the peritoneal cavity. Those patients with a positive FAST exam and persistent hypotension despite volume resuscitation should proceed to surgery. Management of blunt Grade IV and V liver lacerations at Froedter Hospital was compared to this standard of care.



Purpose

This is Quality Improvement Study comparing management and mortality of Grade IV and V Liver Lacerations at Froedter Hospital to standard of care practices and national mortality rates.



Contact
 David Lohrey, M.D.
 Email: dloehrey@mcw.edu

Method
 All patients seen at Froedter Hospital with liver lacerations were identified from 2011 to December 2012. A chart review of patient's files. Review focused on management, appropriate use of the FAST exam, and mortality in the non-operative group.

Table 1: Non-operative

	Initial Hypotension	Initial Tachycardia
Case 1	no	
Case 2	no	
Case 3	no	
Case 4	no	
Case 5	no	
Case 6	no	
Case 7	no	
Case 8	no	
Case 9	no	
Case 10	no	
Case 11	no	
Case 12	no	
Case 13	no	
Case 14	yes	
Case 15	yes	

Table 2: Operative

	Initial Hypotension	Initial Tachycardia
Case 1	yes	
Case 2	yes	
Case 3	yes	





Determining FAST Exam Competency Guidelines for Undergraduate Medical Students

Trevor Gessaf, Daniel Ciechla¹, Richmond Downey¹, Mary Beth Phelan MD¹, Caroline Pace MD²
¹Medical College of Wisconsin, ²University of Wisconsin, ³University of Michigan, ⁴University of Colorado

INTRODUCTION

Given the growing use of ultrasound (US) in medical practice¹⁻³, along with the increasing demand for medical students to identify US skills⁴, it is vital that medical students are able to identify US skills. The purpose of this study was to determine the effects of an US medical training curriculum on the acquisition of US skills and to determine the effects of this curriculum on the acquisition of US skills. The curriculum included a 10-week training period over medical students (MS) and was designed to be a part of a larger US training curriculum with a focus on US skills in the ER setting.

OBJECTIVES

The objective of this study is to evaluate a cohort of curriculum aimed at teaching second-year medical students how to perform the FAST exam. By the end of the curriculum, we expect to see:

- An increase in the number of applications of the FAST exam
- An increase in the number of correct applications of the FAST exam
- An increase in the number of correct applications of the FAST exam
- An increase in the number of correct applications of the FAST exam

METHODS

Study Population
An introductory medical students at the Medical College of Wisconsin were recruited to participate in the study.

Study Location
The study was conducted in the University of Wisconsin at Madison, Wisconsin (UW-Madison). The study was conducted in the University of Wisconsin at Madison, Wisconsin (UW-Madison).

FAST Practice Session
During the practice session, students were instructed on the FAST exam and its application. These sessions were held in a classroom setting with a focus on the FAST exam.

Training Session for the Normal FAST Exam
The training session for the normal FAST exam was held in a classroom setting with a focus on the FAST exam.

Results of the FAST Exam
The results of the FAST exam were compared to the results of the FAST exam. The results of the FAST exam were compared to the results of the FAST exam.

Statistical Analysis
The statistical analysis was performed using a t-test. The statistical analysis was performed using a t-test.

Results
The results of the FAST exam were compared to the results of the FAST exam. The results of the FAST exam were compared to the results of the FAST exam.

Conclusions
The results of the FAST exam were compared to the results of the FAST exam. The results of the FAST exam were compared to the results of the FAST exam.

References
1. Gessaf T, Ciechla D, Downey R, Phelan M, Pace C. The effects of an US medical training curriculum on the acquisition of US skills. *Journal of Emergency Medicine*. 2015;41(1):1-10.

RESULTS

Subgraph View

RUQ View

LUQ View

Suprapubic View

Final Exam Performance

Previous Experience
• 62% (n=12) of students indicated an ultrasound in the previous year.
• None of the subjects had performed an ultrasound at an ultrasound practice training in the laboratory.

FAST Practice Session
• Average score for the FAST exam was 1.0 (SD=0.0) at the beginning of the curriculum.
• Average score for the FAST exam was 2.0 (SD=0.0) at the end of the curriculum.
• Difference in score was 1.0 (SD=0.0) (p<0.0001).

Competency and Confidence
Competency is defined as the ability to perform a task and identify anatomic structures. Confidence is defined as the ability to identify and apply a task. Competency and confidence were measured at the beginning and end of the curriculum.

FAST Practice Session
• Competency improved by 0.8 (SD=0.2) (p<0.0001).
• Confidence improved by 1.0 (SD=0.2) (p<0.0001).
• 100% (n=12) of students correctly identified all of the structures.
• 100% (n=12) of students correctly identified all of the structures.
• 100% (n=12) of students correctly identified all of the structures.

Final Exam Performance
• The mean score for the FAST exam was 2.0 (SD=0.0) at the beginning of the curriculum.
• The mean score for the FAST exam was 2.0 (SD=0.0) at the end of the curriculum.
• The mean score for the FAST exam was 2.0 (SD=0.0) at the end of the curriculum.

RESULTS CONTINUED

Recruitment
• Did Not Respond: n=12
• Did Not Complete Session: n=0

Introduction Session
• Did Not Respond: n=12
• Did Not Complete Session: n=0

Ultrasound Session
• Completed Session: n=12
• Did Not Complete Session: n=0

FAST Practice Session
• Completed Session: n=12
• Did Not Complete Session: n=0

Training Session for the Normal FAST Exam
• Completed Session: n=12
• Did Not Complete Session: n=0

Introduction Session for the Advanced FAST Exam
• Completed Session: n=12
• Did Not Complete Session: n=0

Final Competency Exam
• Completed Session: n=12
• Did Not Complete Session: n=0

CONCLUSIONS

• Students who completed the curriculum were able to identify US skills and to identify US skills. The curriculum was effective in teaching US skills to medical students. The curriculum was effective in teaching US skills to medical students.

REFERENCES

1. Gessaf T, Ciechla D, Downey R, Phelan M, Pace C. The effects of an US medical training curriculum on the acquisition of US skills. *Journal of Emergency Medicine*. 2015;41(1):1-10.
2. Gessaf T, Ciechla D, Downey R, Phelan M, Pace C. The effects of an US medical training curriculum on the acquisition of US skills. *Journal of Emergency Medicine*. 2015;41(1):1-10.
3. Gessaf T, Ciechla D, Downey R, Phelan M, Pace C. The effects of an US medical training curriculum on the acquisition of US skills. *Journal of Emergency Medicine*. 2015;41(1):1-10.
4. Gessaf T, Ciechla D, Downey R, Phelan M, Pace C. The effects of an US medical training curriculum on the acquisition of US skills. *Journal of Emergency Medicine*. 2015;41(1):1-10.

of service learning on med... toward healthcare for the homeless
 Derek Spindler BS¹, Lind...
 Medical College of Wis...
 ...iehr MD¹, Margaret Samyn MD^{1,2}
 ...or Wisconsin², Milwaukee, WI



background

Healthcare needs and poor access.
 barriers to adequate healthcare.
 The homeless become less positive over time.
 Training and service learning can facilitate more
 caring for the homeless and underserved.

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(all)
 ch in Medical
 rvice learning
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service learning and/or homeless outreach
 attitudes toward serving homeless patient

Methods

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 entory
 eported service
 pation.
 ness didactics
 -post exposure
 SL (UCH+GH)
)
 ore (1-95)
 mple t-test with
 son

M1	M2/M3
77 (64.3%)	76 (67.53.7%)
(62.43.8)	(78.38.3)
(47.66.1)	(28.28.9)

- Discussion
- Overall, GH and UCH students had favorable HPATH scores regardless of year, with a slightly higher (SD) score among UCH students.
 - M2/M3 HPATH scores were lower than M1s, consistent with previous studies showing that attitudes are generally positive, but become more negative as students progress through medical education.
 - For M2/M3s, neither involvement in service learning nor HCME project was associated with HPATH scores.
 - For M1s, very early participation in HCME (Y1) prior to the UCH intervention was significantly associated with more positive attitudes.
 - This could be related to impact from the experience, or more likely reflects more favorable attitudes among those who elect to participate in the program (selection bias).



Limitations and Next Steps

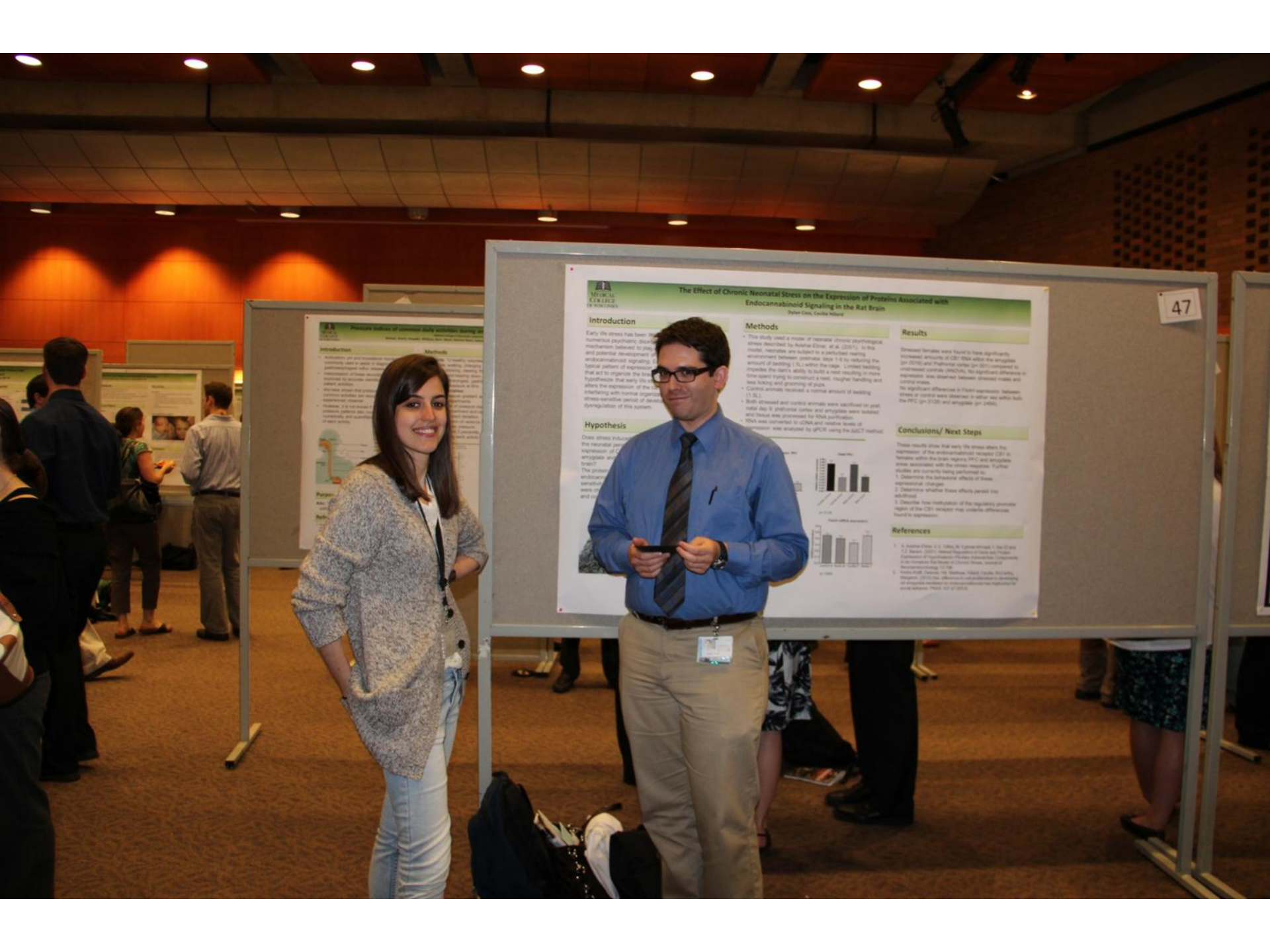
- Study limited to freshmen of one UCH/for based students, who are primarily from predominantly minority backgrounds, future study would need to include other student populations.
- Changes in attitude over time.
- Longitudinal follow-up is necessary to determine whether attitudes remain positive or generally become more negative.
- Additional study is needed to determine the extent and duration of the intervention and analysis will assess degree of change/long-term retention on the HPATH.

References

1. Spindler D, et al. (2014) [Abstract]
2. [Reference]
3. [Reference]
4. [Reference]
5. [Reference]

100%





The Effect of Chronic Neonatal Stress on the Expression of Proteins Associated with Endocannabinoid Signaling in the Rat Brain
 Daniel Cook, Cecilia Nelson

Introduction
 Early life stress has been linked to numerous psychiatric disorders. Mechanisms believed to play a role in the pathogenesis of these disorders include dysregulation of the endocannabinoid system. The endocannabinoid system is a complex signaling system that acts to regulate the brain's response to stress. The hypothesis is that early life stress alters the expression of the endocannabinoid system, leading to dysregulation of this system.

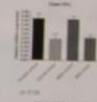
Hypothesis
 Chronic stress induces the neonatal expression of CB1R, CB2R, and other proteins associated with endocannabinoid signaling. The protein levels of these proteins were measured in the rat brain.

Methods
 This study used a model of neonatal chronic psychosocial stress described by Akbari-Ebani *et al.* (2011). In this model, rodents are subject to a perturbed rearing environment between postnatal days 1-8 by reducing the amount of bedding (1.5L) within the cage. Limited bedding often leads to crowded conditions, rough handling and less licking and grooming of pups.
 Control animals received a normal amount of bedding (1.5L).
 Both stressed and control animals were sacrificed on postnatal day 8. Prefrontal cortex and amygdala were isolated and tissue was processed for RNA purification. RNA was converted to cDNA and relative levels of expression were analyzed by qPCR using the ΔΔCT method.

Results
 Stressed females were found to have significantly increased amounts of CB1R that within the amygdala (p < 0.05) and Prefrontal cortex (p < 0.05) compared to unhandled controls (UNH). No significant differences in expression were observed between stressed males and control males.
 No significant differences in CB2R expression between stressed or control were observed in either sex within both the PFC (p < 0.05) and amygdala (p < 0.05).

Conclusions/Next Steps
 These results show that early life stress alters the expression of the endocannabinoid receptor CB1R in females within the brain regions PFC and amygdala areas associated with the stress response. Further studies are currently being performed to:
 1. Determine the behavioral effects of these endocannabinoid changes.
 2. Determine whether stress effects persist into adulthood.
 3. Determine how modification of the regulatory promoter region of the CB1 receptor may mitigate differences found in expression.

References
 1. A. Akbari-Ebani, C. S. Nelson, M. Espinosa-Vega, L. Lee, D. G. Kim, T. J. Bartley (2011) "Neonatal Stress Alters the Expression of Neuroendocrine-Related Endocannabinoid Components in the Prefrontal Cortex of Chronic Stress Rats." *Journal of Neuroendocrinology*, 33, 166-174.
 2. Akbari-Ebani, C. S., Nelson, M., Espinosa-Vega, L., Lee, D. G., Kim, T. J., Bartley, T. J. (2011) "The effects of neonatal stress on the expression of neuroendocrine-related endocannabinoid components in the rat brain." *Journal of Neuroendocrinology*, 33, 166-174.



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Universal Depression Screening by Non-Physician Staff in a Low-income Inner-City Practice Setting

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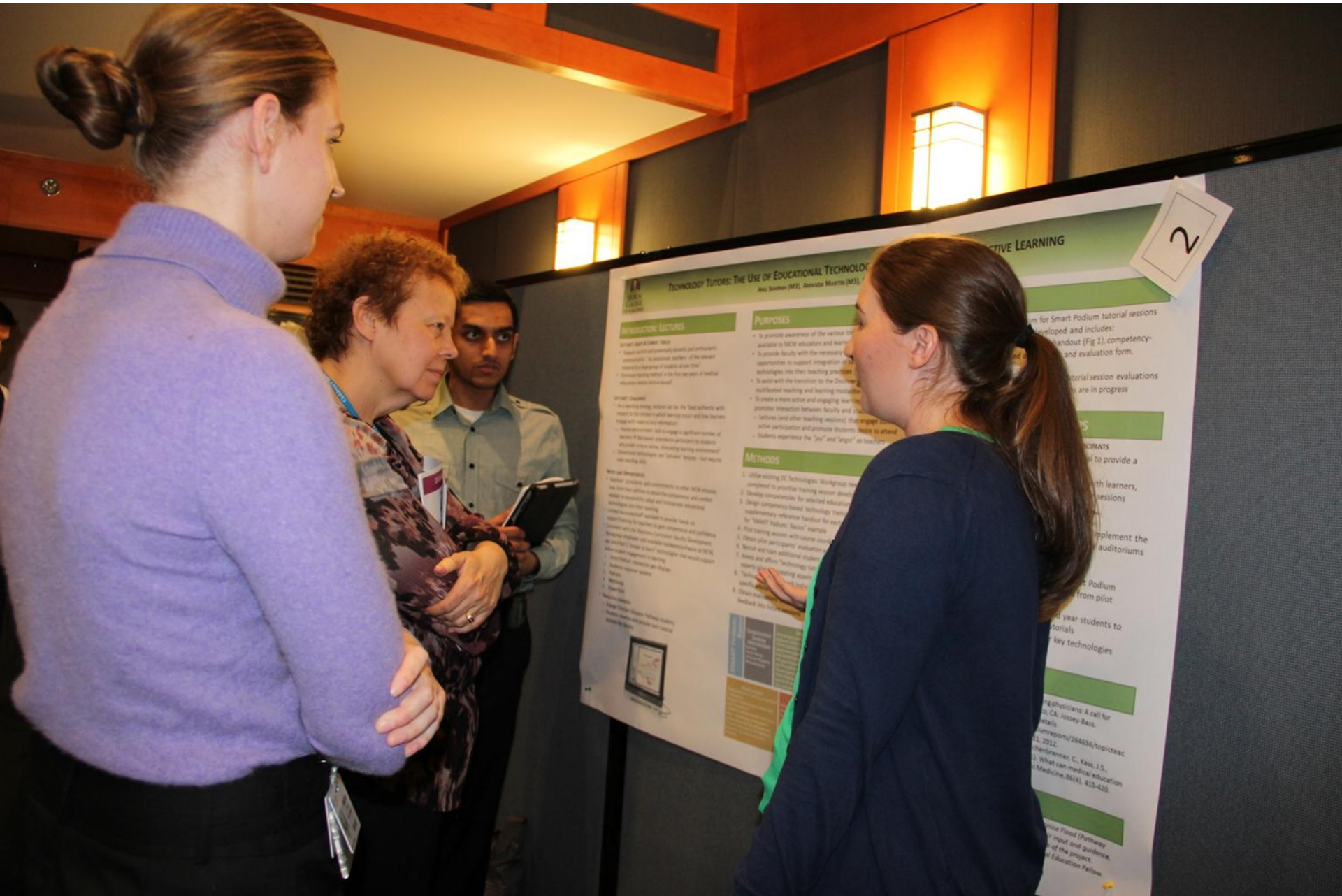
Introduction

Depression is common in the United States affecting an estimated 6.6% of the U.S. adult population per year costing >\$43 billion. In 2002, the US Preventive Services Task Force recommended screening for depression in primary care settings¹ and the American College of Preventive Medicine reiterated this recommendation in 2009.²

Purpose

Evaluate the feasibility and efficacy of a non-physician depression screening program in an inner-city, low-income underserved community. Evaluate the impact of the program on the prevalence of depression in the community.





TECHNOLOGY TUTORS: THE USE OF EDUCATIONAL TECHNOLOGY

Ann Santos (MEd), Associate Morris (MEd)

INTRODUCTION

Smart Podium™ is a...
...to promote awareness of the various...
...to provide faculty with the necessary...
...opportunities to support integration of...
...technologies into their teaching practices.
...to assist with the transition to the...
...multifaceted teaching and learning...
...to create a more active and engaging...
...promote interaction between faculty and...
...students (and other teaching resources) that...
...active participation and promote students...
...Students experience the "aha" and "light" at teaching.

PURPOSES

- To promote awareness of the various...
- To provide faculty with the necessary...
- To provide opportunities to support integration of...
- To assist with the transition to the...
- To create a more active and engaging...
- To promote interaction between faculty and...
- To provide students with the necessary...
- To provide opportunities to support integration of...
- To assist with the transition to the...
- To create a more active and engaging...
- To promote interaction between faculty and...

METHODS

1. Utilize existing DC Technology Workshop...
2. Develop competencies for selected educators...
3. Design competency-based technology training...
4. Pilot training sessions with course coordinators...
5. Develop and participate in additional student...
6. Assess and refine technology training...
7. Assess and refine technology training...
8. Assess and refine technology training...



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ACTIVE LEARNING

...for Smart Podium tutorial sessions...
...developed and includes:
...handout (Fig 1), competency-
...and evaluation form.

...tutorial session evaluations
...are in progress

...to provide a
...with learners,
...sessions,

...to complement the
...auditoriums

...Podium
...from pilot

...year students to
...tutorials
...key technologies

...ing physicians: A call for
...CA: Jojoey Bass.
...etails
...omports/264636/topic/teac
...1, 2022.
...chenbrower, C., PhD, J.S.,
...What can medical education
...Medicine, 86(4), 413-420.

...ous Flood (Pathway
...input and guidance,
...of the project.
...Education Fellow.

Innovative Geriatric Curricula

J. C. Anderson (2013).



Results

The residents from each of the specialties who participated in the GET educational sessions rated the sessions highly, with an average Likert-Scale rating of 6.2 out of 7 across specialties. Ophthalmology rated the session the highest, averaging 6.7 out of 7, while Emergency Medicine residents rated the session lowest, average 5.5 out of 7. Among individual evaluation questions, residents evaluated the effectiveness of teachers and the overall session highest, while rating the overall effect on learning, content of the session, and use of instructional materials to advance learning slightly lower.

Discussion & Conclusions

Many subspecialty program residents responded favorably towards the implementation of innovative geriatric-focused curricula. The overall ratings indicate that the educational materials were engaging to residents. One future area of evaluation would be assessing the efficacy of the geriatric curricula via in-service training exam results and repeat "needs assessments".

Overall, the curricula assisted programs in (1) meeting the needs of changing demographics of their patient population, (2) helping to fulfill ACGME-required geriatric competencies, and (3) providing innovative ideas towards revitalizing graduate medical education.

Finally, GETs provided an opportunity for interdisciplinary collaboration. It allowed medical students to learn about the importance of geriatric-specific knowledge, methods of developing curricula, and ways of effective teamwork and communication across specialties.

The EBM OSCE: Assessment

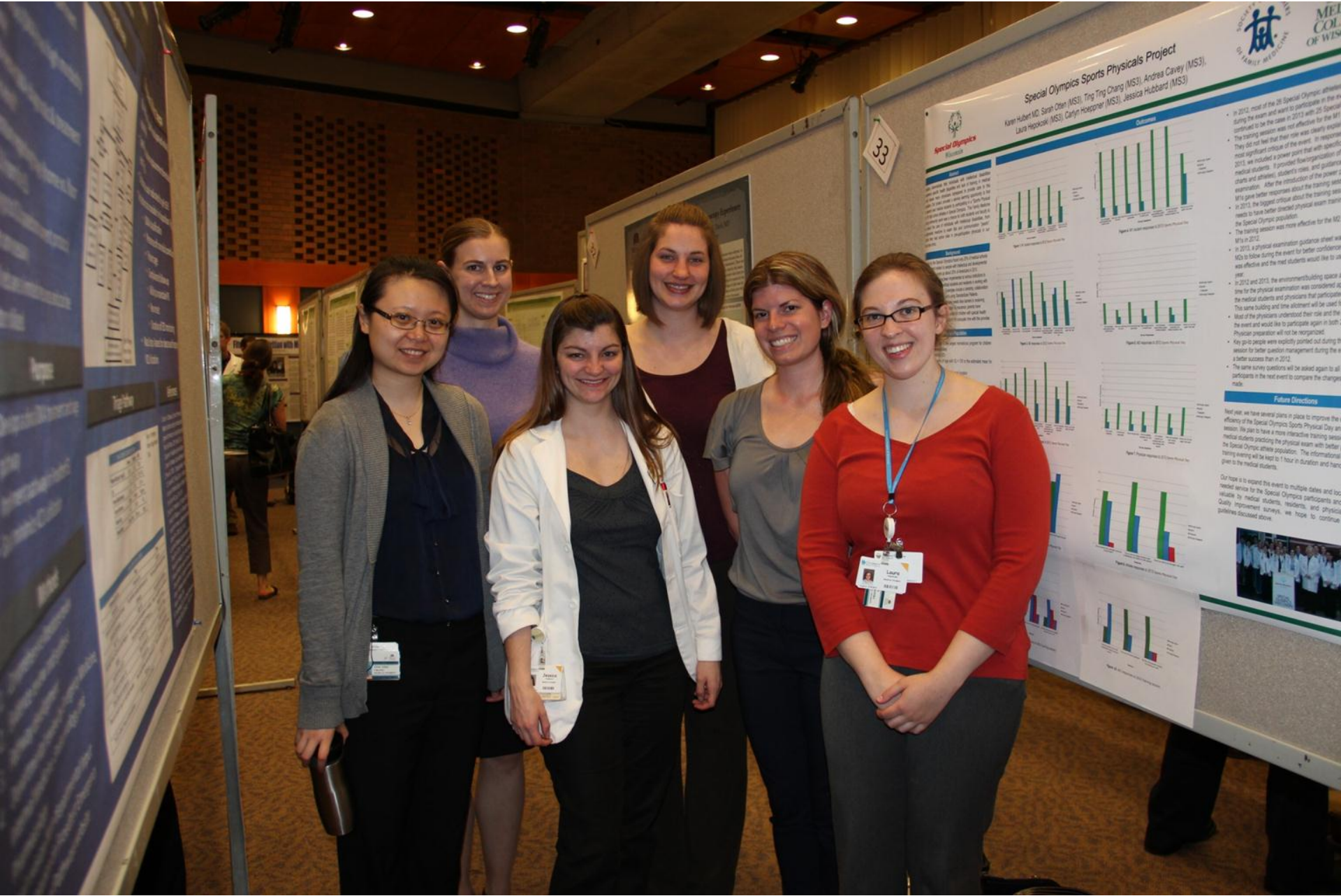
David W.

Method

A 30-minute first 20-formula literature clinical test against a standard student communication interview







Special Olympics Sports Physicals Project

Karen Hubert MD, Sarah Oren MSJ, Ting Ting Chang MSJ, Andrea Cavity MSJ, Laura Heppeski MSJ, Carlyn Hoepner MSJ, Jessica Hubbard MSJ



Introduction
The Special Olympics Physical Examination (PE) is a critical component of the Special Olympics program. It is designed to identify and address medical conditions that may affect an athlete's performance and safety. The PE is a comprehensive physical examination performed by a physician or physician assistant. The results of the PE are used to determine if an athlete is eligible to compete in Special Olympics and to develop a plan of care for any medical conditions identified.

Background
The Special Olympics Physical Examination (PE) is a critical component of the Special Olympics program. It is designed to identify and address medical conditions that may affect an athlete's performance and safety. The PE is a comprehensive physical examination performed by a physician or physician assistant. The results of the PE are used to determine if an athlete is eligible to compete in Special Olympics and to develop a plan of care for any medical conditions identified.

Objectives
The objectives of the Special Olympics Physical Examination (PE) project are to:



- In 2012, most of the 26 Special Olympics athletes who participated in the PE were found to have a medical condition that required further evaluation.
- The training session was not effective for the majority of the athletes who participated in the PE.
- The PE did not feel that their role was clearly defined.
- In 2013, we included a power game that with specific instructions and feedback from the medical students, students' roles and guidelines were clarified and athletes' understanding of the training session was improved.
- In 2013, the program received positive feedback from the athletes who participated in the PE.
- In 2013, the program received positive feedback from the medical students who participated in the PE.
- In 2013, the program received positive feedback from the Special Olympics staff who participated in the PE.
- In 2013, a physical examination guidance sheet was developed to help medical students and Special Olympics staff to follow during the event for better coordination and the medical students would like to do this in the future.
- In 2012 and 2013, the environment building space for the physical examination was considered as a space for the medical students and physicians that participate in the event and the time allocation will be used for the event and would like to participate again in both the future.
- Key go-to people were explicitly pointed out during the training session for better question management during the event.
- The same survey questions will be asked again to all participants in the next event to compare the changes made.

Future Directions

Next year, we have several plans in place to improve the efficiency of the Special Olympics Sports Physical Day examination. We plan to have a more interactive training session for medical students practicing the physical exams with better feedback from the Special Olympics athletes. The informational training evening will be kept to 1 hour in duration and handed out to the medical students.

Our hope is to expand this event to multiple dates and locations to provide service for the Special Olympics participants and to be available for medical students, residents, and physicians. In the future, we will conduct more surveys, we hope to continue to improve the service.



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