MCW PATHWAYS

M-3 Scholarship Forum
May 9, 2013

MEDICAL COLLEGE OF WISCONSIN


TAIDEN


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


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Children's
Hospital of Wisconsin
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
EXIT


Evaluation of whiteboard use in a pediatric intensive care unit
Sven Olson[1]
Lea Moody[1]
David Triscari[2]
Dr. Matthew Scanlon MD, CPPS[2]
1QuIPs Pathway, Medical College of Wisconsin
2Pediatric Critical Care, Medical College of Wisconsin
EXIT


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AN-135


Session 5 – Medical Carnivalesque
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
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Technology Tutors: The Use of Educational Technology Tutorials to Promote Active Learning

Anil Sharma (M3), Amanda Martin (M3), Deborah Simpson, PhD

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Introduction: Lectures

Lecture's Assets & Current Status

- Support succinct and potentially dynamic and enthusiastic communication – by passionate teachers - of the relevant material to a large group of students at one time[1]
- Dominant teaching method in the first two years of medical education remains lecture-based[2]

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[3]
  - Passive environment: fails to engage a significant number of learners → decreased attendance particularly by students who prefer a more active, stimulating learning environment[1]
  - Educational technologies can "activate" lectures – but require new teaching skills

Needs and Opportunities

- Teachers' constraints 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 Workgroup emphases and available hardware/software at MCW, we identified 5 "simple to learn" technologies that would support active student engagement in learning:
  1. Smart Podium interactive pen displays
  2. Audience response systems
  3. Podcasts
  4. WebNotes
  5. PowerPoint
- Resources available
  - Engage Clinician 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 "angst" as teachers

Methods

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

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

Results

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

Future Work for Technology Tutors Project

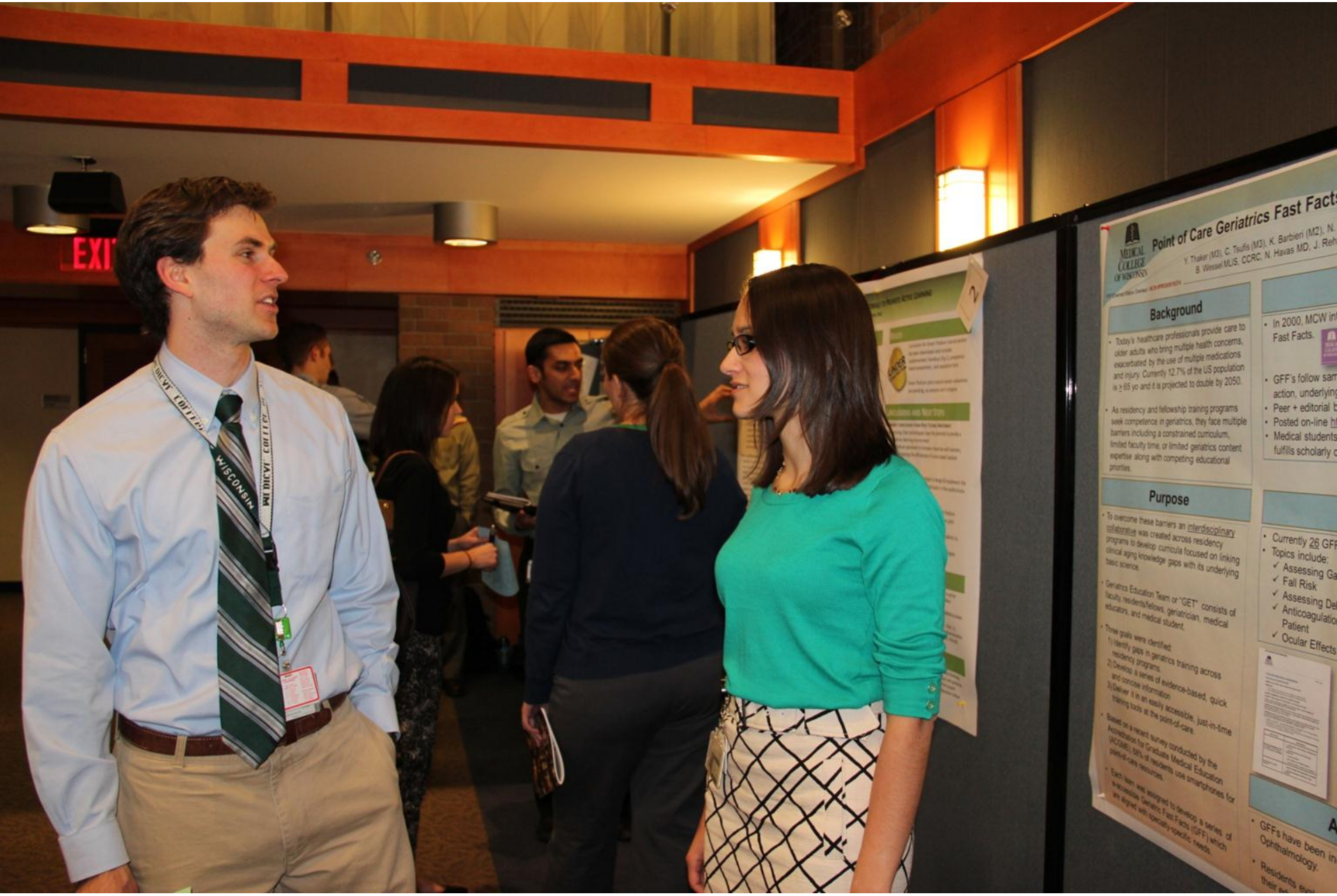
- Completion of pilot training sessions for the Smart
- Compilation and analysis of tutorial evaluations fr participants to inform tutorial revision
- Recruitment and training of first and second year assist with full-scale implementation of tutorials
- Application of similar approaches to other key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

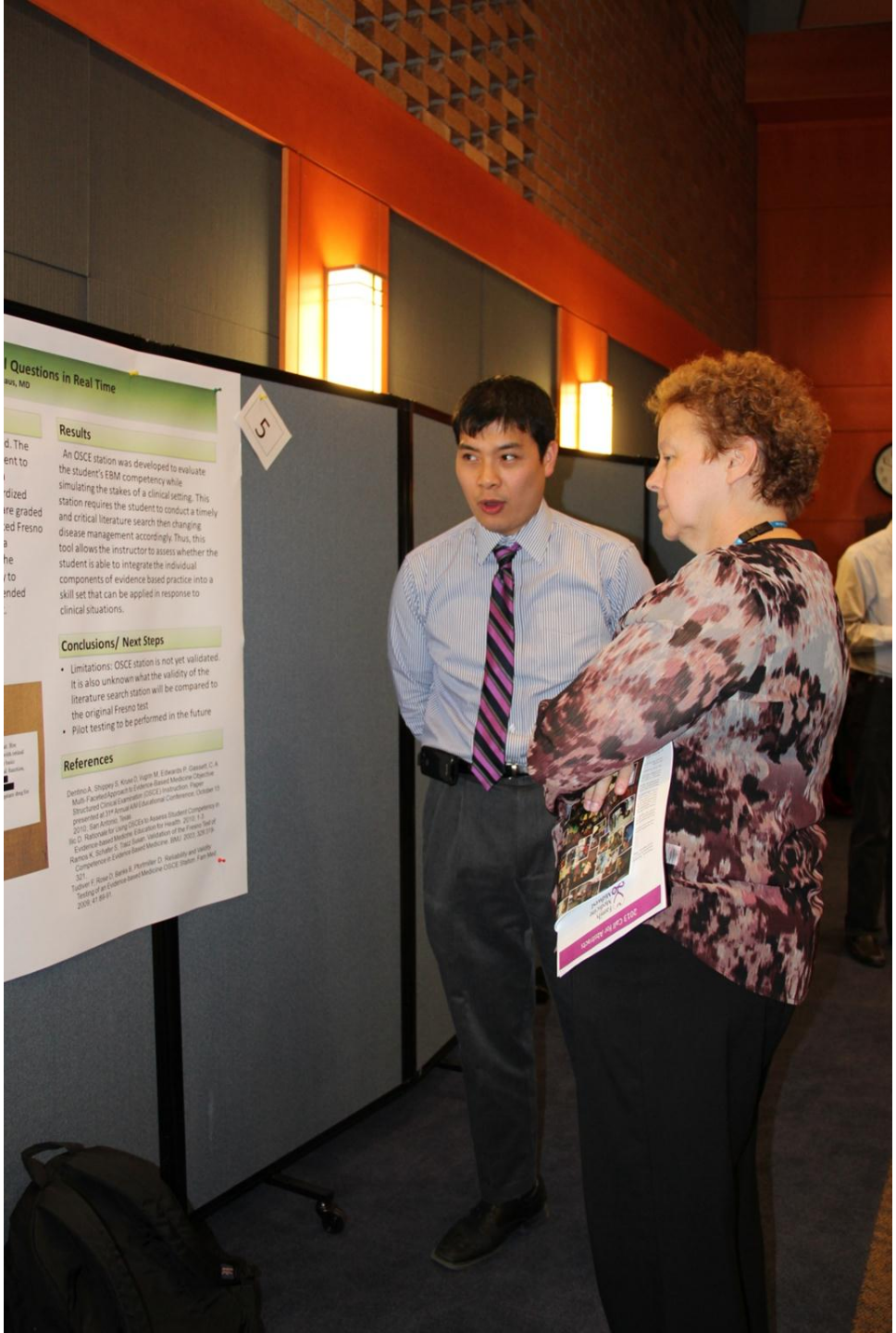
References

1. Cooke, M., Irby, D.M., & O'Brien, B.C. (2010). Educating ph reform of medical school and residency. San Francisco, CA
2. AAMC Curriculum Report – Medical School Course Detail (https://www.aamc.org/initiatives/mededapi/curriculumre hirgan/assessmentformats.htm). Accessed April 21, 20
3. Friedlander, M.J., Andrews, L., Armstrong, E.G., Aschenb Ogden, P., Schwartzstein, R., & Viggiano, T.R. (2011). Wh learn from the neurobiology of learning? Academic Med

Acknowledgements

The authors wish to acknowledge Drs. Mary Cienki and Vi Advisors) and Meaghan Howes (Pathway Coordinator) for t as well as Donal Cienki (M3) for his work on the initial v Ms. Martin is an OHA/MCW Eva B. & Roger D. Cohen M


EXIT
Point of Care Geriatrics Fast Facts
Background
Purpose


Questions in Real Time
Results
An OSCE station was developed to evaluate the student's EBM 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
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EXIT
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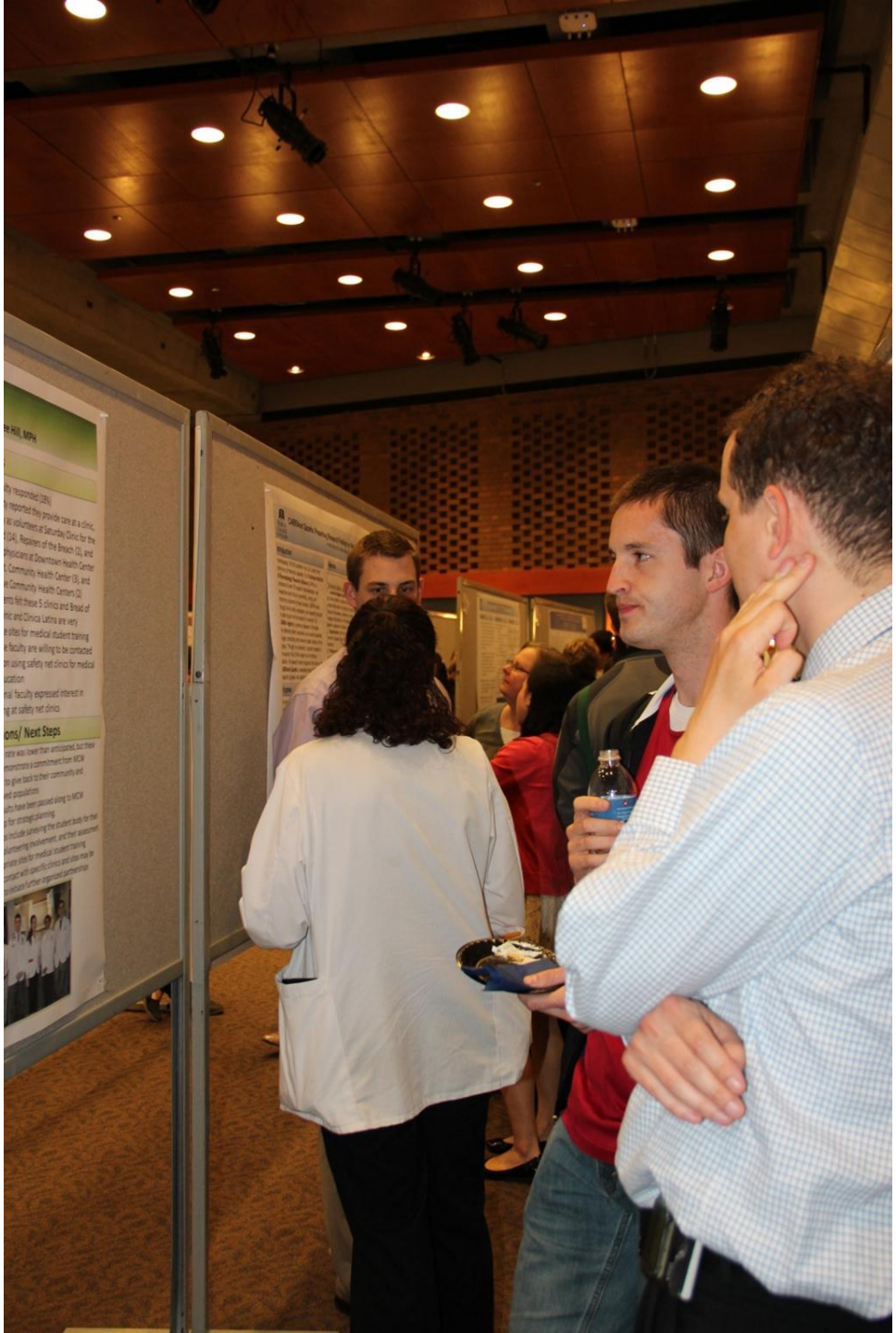
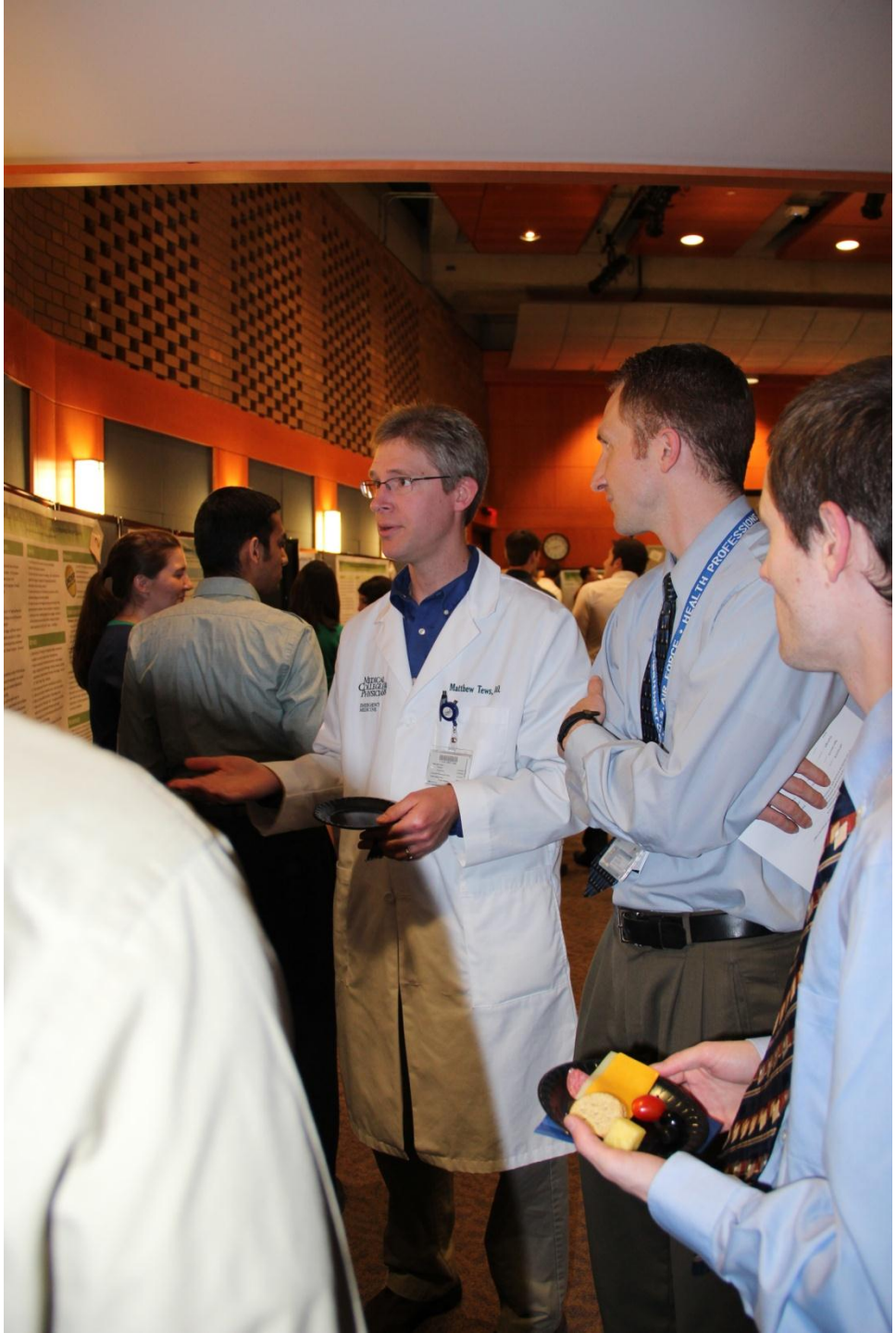
Background
Methods
Objectives
Findings
Summary
Recommendations
References




Matthew Tews, MD
HEALTH PROFESSIONS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Medical College of Wisconsin
Novel Approach in Burn Donor Site Dressing Using Melolin & Flexigrid
1. Medical College of Wisconsin, 2. University of Washington Dept. of Surgery (Seattle, WA) & Imam Reza Hospital (Mashad, Iran)
Amir H. Talebi Liasi[1], Amir Vejdani M.D.[2]
Introduction
Burns are 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 (extension into superficial papillary dermis), deep 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 method using a combination dressing consisting of an absorbent dressing (Melolin) and a protective transparent film (Flexigrid). A total of 107 patients were divided into control and treatment groups randomly. 54 patients were placed in the treatment group with an average age of 26.5 years and 53 patients were placed in the control 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 1/250th of inch, two thin layers of dry gauze are placed on the donor site. The surgeon then straightens the layers and then further places 2 or 3 more dry gauzes and completes the dressing by using a pressure sterile bandage. Using a heat lamp the wound 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 1/250th of inch, a layer of absorbent Melolin is placed on the donor site with a layer of transparent Flexigrid to follow. On the third day, the mixed dressing is removed and the wound is washed with normal saline. A Flexigrid 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 this point the wound site can be treated only with topical Vitamin A+D ointment.
Purpose
Burn donor site cares is one of the most important concerns in burn surgery. In the deep burn wounds requiring surgical debridement and semi-thickness grafting from another site, the choice of dressing type and its quality are of important determinants of graft donor site healing time. Traditional dressings have some disadvantages, which interfere with epithelial growth and final results. This study evaluates 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 layer 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. Flexigrid is 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.
References
Results
Complete Epithelialization period in the treatment group was found to be 9.1 ±2.1 days and 15 ±3 days for the control group (p<0.001).
Infection rates were 4% and 21% for the treatment and control groups respectively (p<0.007).
Hospital stay time in the treatment group was 17.6 ±2.1 days and in the control group was 23.2 ±2.7 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 graded as 4 ... result, ... grade


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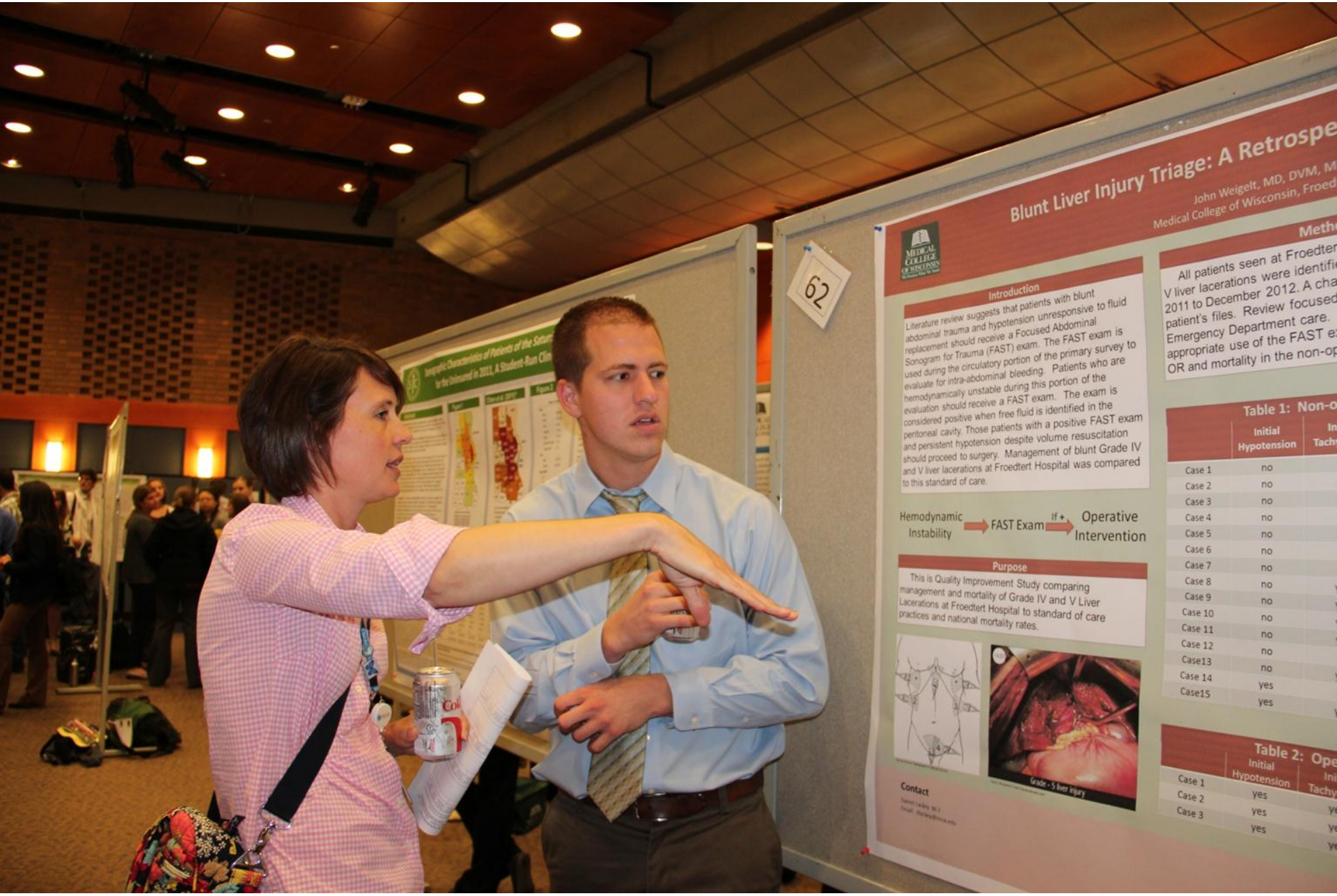
An Error of Omission?
% of Known Pressure Ulcers
64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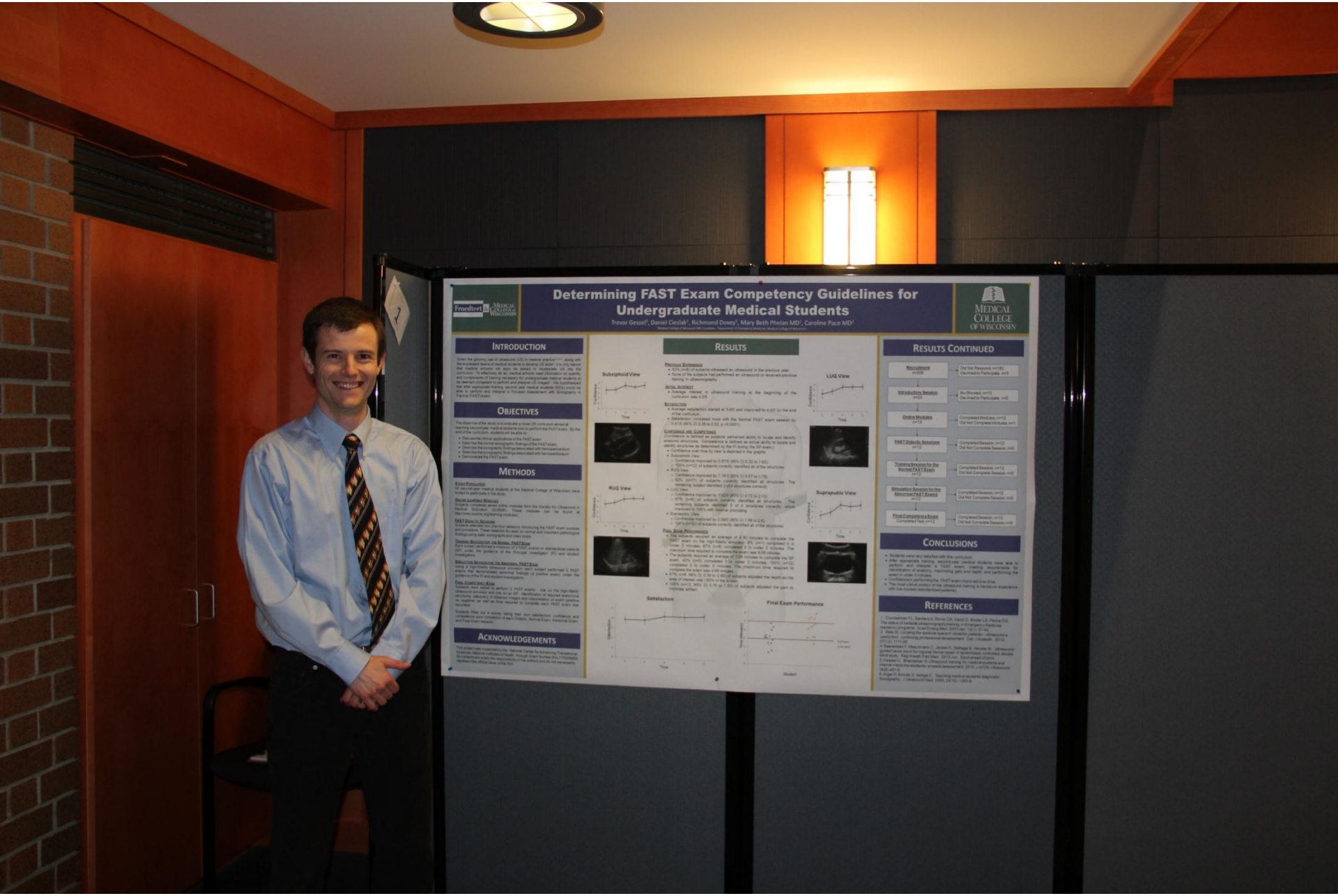
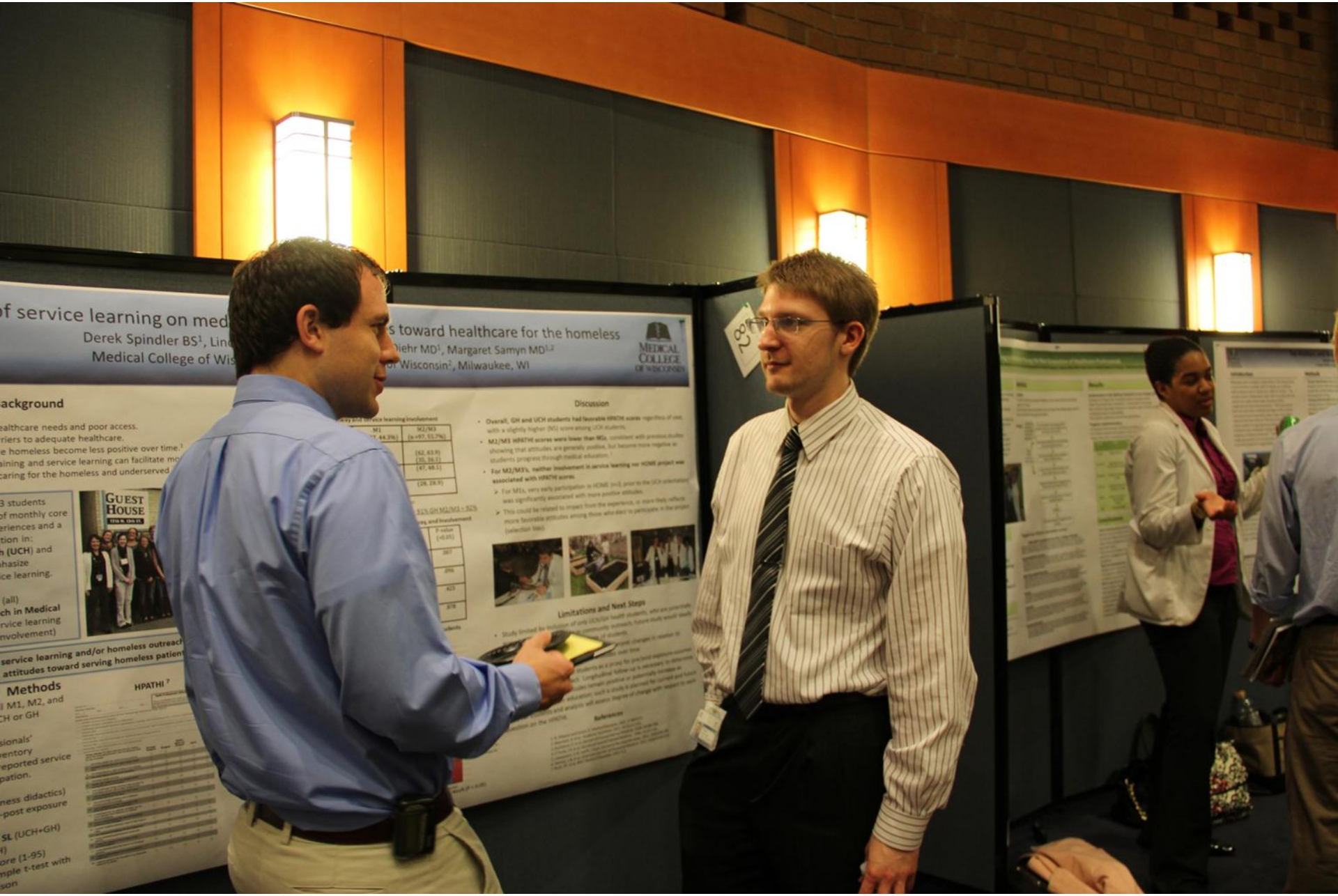
Blunt Liver Injury Triage: A Retrospe
John Weigelt, MD, DVM, M
Medical College of Wisconsin, Froed
Introduction
Literature review suggests that patients with blunt abdominal trauma and hypotension unresponsive to fluid replacement should receive a Focused Abdominal Sonogram for Trauma (FAST) exam. The 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 Froedtert Hospital was compared to this standard of care.
Hemodynamic Instability
FAST Exam
If +
Operative Intervention
Purpose
This is Quality Improvement Study comparing management and mortality of Grade IV and V Liver Lacerations at Froedtert Hospital to standard of care practices and national mortality rates.
Grade - 5 liver injury
Contact
Meth
All patients seen at Froedter
V liver lacerations were identifi
2011 to December 2012. A cha
patient's files. Review focused
Emergency Department care.
appropriate use of the FAST e
OR and mortality in the non-op
Table 1: Non-o
Initial Hypotension
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
Case13 no
Case 14 yes
Case15 yes
Table 2: Ope
Initial Hypotension
Case 1
Case 2 yes
Case 3 yes
yes


Determining FAST Exam Competency Guidelines for Undergraduate Medical Students
Trevor Gessel[1], Daniel Cieslak[2], Richmond Doxey[2], Mary Beth Phelan MD[2], Caroline Pace MD[2]
Introduction
Objectives
Methods
Acknowledgements
Results
Subxiphoid View
LUQ View
RUQ View
Suprapubic View
Satisfaction
Final Exam Performance
Results Continued
Recruitment
Introductory Session
Online Modules
FAST Didactic Sessions
Training Session for the Normal FAST Exam
Stimulation Session for the Abnormal FAST Exams
Final Competency Exam
Conclusions
References


f service learning on med
Derek Spindler BS[1], Lin
Medical College of Wis
s toward healthcare for the homeless
iehr MD[1], Margaret Samyn MD[1,2]
or Wisconsin[2], Milwaukee, WI
MEDICAL COLLEGE OF WISCONSIN
ackground
ealthcare needs and poor access.
riers to adequate healthcare.
e homeless become less positive over time.[1]
aining and service learning can facilitate mo
caring for the homeless and underserved.
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(all)
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rvice learning
nvolvement)
GUEST HOUSE
service learning and/or homeless outreach
attitudes toward serving homeless patient
Methods
M1, M2, and
CH or GH
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-post exposure
SL (UCH+GH)
ore (1-95)
mple t-test with
son
HPATHI [7]
Discussion
Overall, GH and UCH students had favorable HPATHI scores regardless of year, with a slightly higher (NS) score among UCH students.
M2/M3 HPATHI 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.[1]
For M2/M3's, neither involvement in service learning nor HOME project was associated with HPATHI scores.
For M1s, very early participation in HOME (m3, prior to the UCH orientation) was significantly associated with more positive attitudes.
This could be related to impact from the experience, or more likely reflect more favorable attitudes among those who elect to participate in the project (selection bias).
Limitations and Next Steps
Study limited by inclusion of only UCH/GH health students, who are primarily
References


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The Effect of Chronic Neonatal Stress on the Expression of Proteins Associated with Endocannabinoid Signaling in the Rat Brain
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PATHWAYS


Universal Depression Screening by Non-Physician Staff in a Low-Income Underserved Family Practice Setting
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2
Technology Tutors: The Use of Educational Technol
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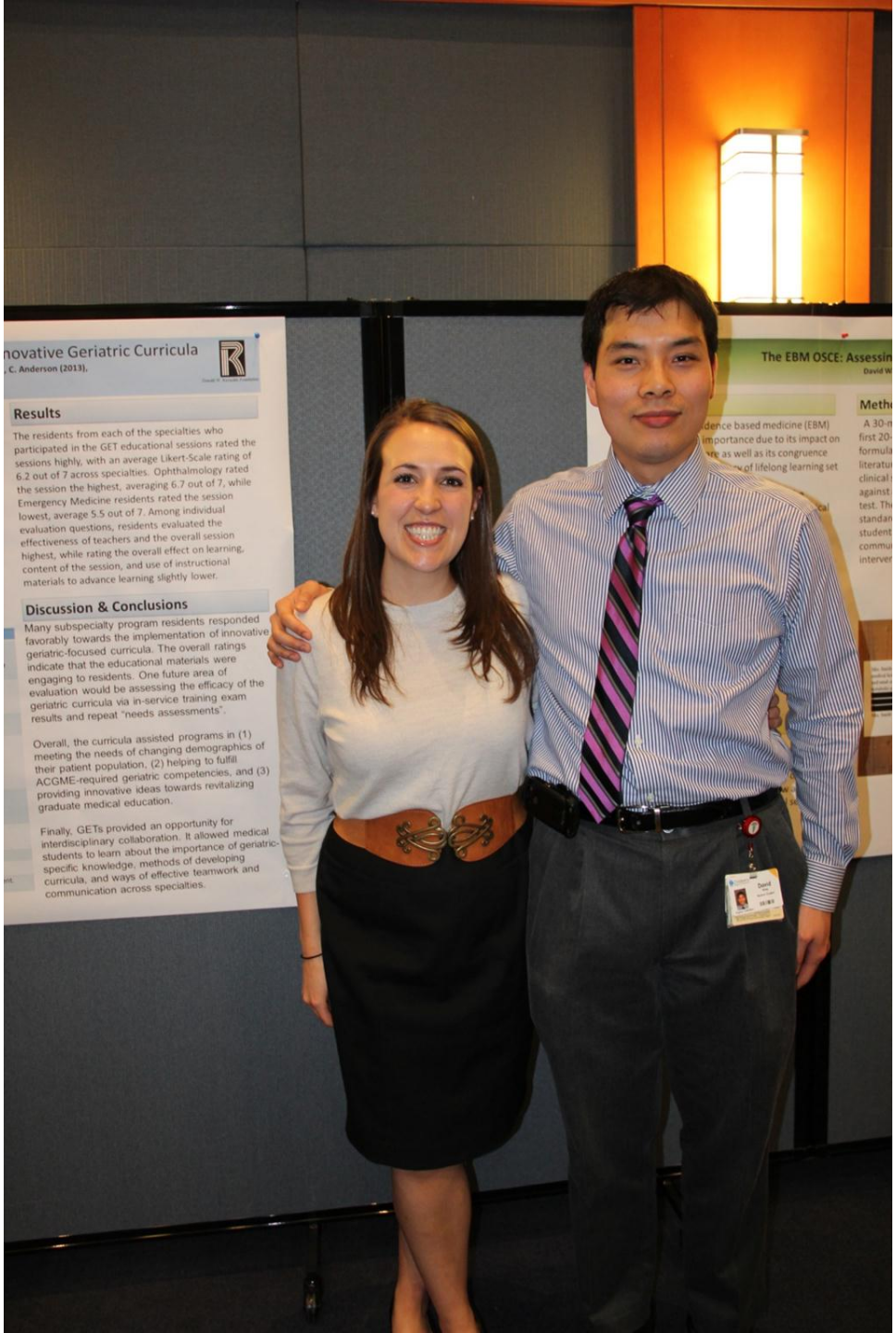
novative Geriatric Curricula
C. Anderson (2013).
Results
The residents from each of the specialties who participated in the GET educational sessions rated the sessions highly, with an average Likert-Scale rating of 6.2 out of 7 across specialties. Ophthalmology rated the session the highest, averaging 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: Assessin
David W
Meth
dence based medicine (EBM)
importance due to its impact on
as well as its congruence
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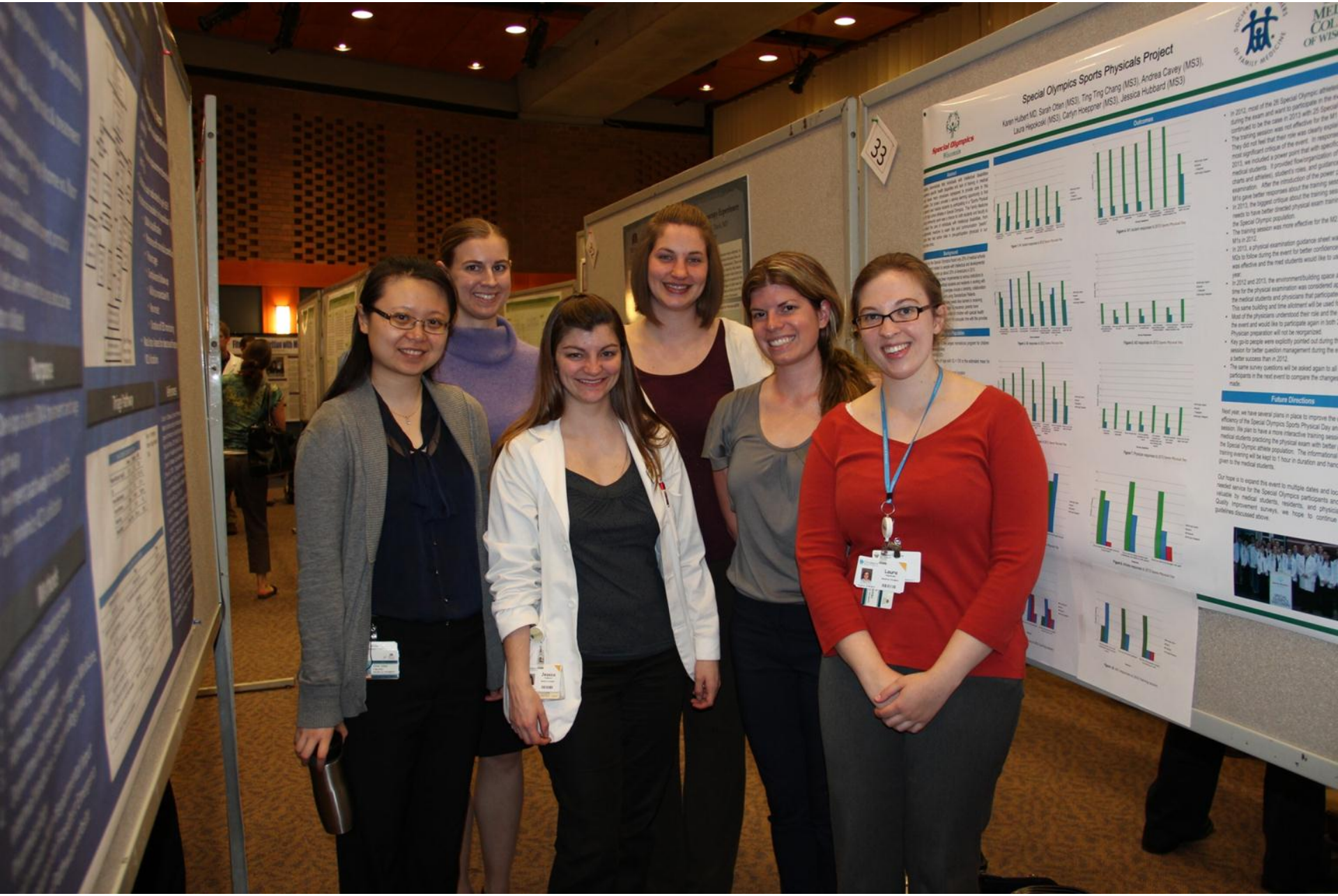
Results
Conclusions/ Next Steps


Special Olympics Sports Physicals Project
Karen Hubert MD, Sarah Otten (MS3), Ting Ting Chang (MS3), Andrea Cavey (MS3),
Laura Hepokoski (MS3), Carlyn Hoeppner (MS3), Jessica Hubbard (MS3)
Special Olympics
Wisconsin
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