Transforming Inter-professional Education Through Simulation: Going the Extra Mile

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Concordia University Ann Arbor School of Nursing

Purpose
- Provide opportunities for nursing and justice and public policy (JPP) students to learn from and about each other's programs
- Expose students to opportunities to work in teams
- Engage our students in experiences that required the use of effective personal and patient safety strategies

Methods
- Four simulations were created to address safety and teamwork with vulnerable populations
  - Issues of elder abuse, domestic violence, veterans with PTSD, and patients with brain injuries were addressed
  - Created simulations to enhance learning about patient and personal safety, communication skills, collaboration, and role definition
- Simulations focused on patient-centered care skills specific for Nursing and JPP
- 27 nursing students and 35 JPP students completed the simulations and the evaluation at the end of the semester

Results
- 89% indicated that this experience increased their awareness of safety concerns
- 90-97% agreed they could demonstrate strategies to reduce the risk of harm to self and others
- 93% acknowledged the unique attributes that members with different professional orientations bring to a team
- Participation improved interdisciplinary dialog skills, and heightened appreciation for other perspectives
- Students commented that they felt more prepared to handle stressful real life situations
- Student feedback indicated a new appreciation for the importance of safety as a critical aspect of quality care

Implications
- Our initiative holds promise for extending IPE to include non-traditional members of the care team
- Increasing appreciation and knowledge for different team member roles
- IPE promotes efficient use of resources as it affords opportunities to share infrastructure, institutional knowledge and viewpoints
- Future IPE simulations have been planned with additional non-traditional partners
  - Pre-seminary, education, child life specialists, family life

Simulation provides a safe, non-threatening environment
Improves confidence, competence, decision-making ability, and clinical judgment

Typical inter-professional education (IPE)
- Involves MD, RN, RT, SW, NP, PM, Pharmacy
- Effective for the development of collaborative, highly functioning health care teams

Non-traditional IPE rarely used

Typical IPE options not available at CUAA
- Developed a unique partnership with JPP
The decline in attitudes towards physician-nurse collaboration from medical school to residency

Samantha Kempner, MD; Melissa Brackmann, MD; Emily Kobernik, MPH, CPH; Bethany Skinner, MD; Maya Hammoud, MD; Helen Morgan, MD

Background

- Effective interprofessional collaboration decreases healthcare costs, improves job satisfaction, and improves patient care outcomes.
- What is the impact of clinical exposure on medical students’ and residents’ attitudes towards physician-nurse collaboration?

Methods

The Jefferson Survey of Attitudes Towards Physician Nurse Collaboration

Validated Questionnaire

- 75% response
- Medical Students OB/GYN clerkship
- 18.4% response
- Residents Surveyed via e-mail in July

Scores compared using Student’s t-tests

Results

<table>
<thead>
<tr>
<th>Jefferson Survey of Attitudes</th>
<th>Students n=129</th>
<th>Residents n=295</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Collaborative Decision Making</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 During their education, medical and nursing students should be involved in teamwork in order to understand their respective roles</td>
<td>3.68 ± 0.56</td>
<td>3.61 ± 0.62</td>
<td>0.25</td>
</tr>
<tr>
<td>2 Interprofessional relationships between physicians and nurses should be included in their educational programs</td>
<td>3.53 ± 0.67</td>
<td>3.56 ± 0.59</td>
<td>0.67</td>
</tr>
<tr>
<td>3 A nurse should be viewed as a collaborator and colleague with a physician rather than his or her assistant</td>
<td>3.78 ± 0.49</td>
<td>3.53 ± 0.70</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>4 There are many overlapping areas of responsibility between physicians and nurses</td>
<td>3.39 ± 0.70</td>
<td>3.31 ± 0.67</td>
<td>0.28</td>
</tr>
<tr>
<td>5 Physicians should be educated to establish collaborative relationships with nurses</td>
<td>3.71 ± 0.51</td>
<td>3.60 ± 0.62</td>
<td>0.07</td>
</tr>
<tr>
<td>6 Physicians and nurses should contribute to decisions regarding the hospital discharge of patients</td>
<td>3.54 ± 0.61</td>
<td>3.41 ± 0.68</td>
<td>0.05</td>
</tr>
<tr>
<td>7 Nurses should also have responsibility for monitoring the effects of medical treatment</td>
<td>3.59 ± 0.52</td>
<td>3.59 ± 0.58</td>
<td>0.97</td>
</tr>
<tr>
<td><strong>Role Expectations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Nurses are qualified to assess and respond to psychological aspects of patient’s needs</td>
<td>3.50 ± 0.61</td>
<td>3.48 ± 0.63</td>
<td>0.71</td>
</tr>
<tr>
<td>9 Nurses should be involved in making policy decisions affecting their working conditions</td>
<td>3.73 ± 0.51</td>
<td>3.65 ± 0.56</td>
<td>0.19</td>
</tr>
<tr>
<td>10 Nurses have special expertise in patient education and psychological counseling</td>
<td>3.45 ± 0.67</td>
<td>3.14 ± 0.84</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>11 Nurses should clarify a physician’s order when they feel that it might have the potential for detrimental effects on the patient</td>
<td>3.84 ± 0.37</td>
<td>3.89 ± 0.32</td>
<td>0.19</td>
</tr>
<tr>
<td>12 Nurses should be involved in making policy decisions affecting their working conditions</td>
<td>3.71 ± 0.49</td>
<td>3.59 ± 0.56</td>
<td>0.05</td>
</tr>
<tr>
<td><strong>Authority</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Nurses should be accountable to patients for the nursing care they provide</td>
<td>3.81 ± 0.43</td>
<td>3.91 ± 0.48</td>
<td>0.03</td>
</tr>
<tr>
<td>14 The primary function of the nurse is to carry out the physician’s orders</td>
<td>2.02 ± 0.72</td>
<td>2.42 ± 0.81</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>15 Doctors should be the dominant authority in all health care matters</td>
<td>2.36 ± 0.84</td>
<td>2.65 ± 0.87</td>
<td>0.001</td>
</tr>
<tr>
<td>16 Physicians should be primarily responsible for managing the education and psychological counseling needs of the patient</td>
<td>2.74 ± 0.70</td>
<td>2.48 ± 0.70</td>
<td>0.0008</td>
</tr>
<tr>
<td>17 Nurses want to exert more authority in patient care than they are capable of assuming</td>
<td>1.99 ± 0.65</td>
<td>2.42 ± 0.81</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>18 As nurses become more highly educated, they lose interest in providing bedside care</td>
<td>1.83 ± 0.68</td>
<td>2.12 ± 0.81</td>
<td>0.0002</td>
</tr>
<tr>
<td>19 Patients usually feel more open to talking about their health care concerns with nurses than with physicians</td>
<td>2.61 ± 0.71</td>
<td>2.40 ± 0.74</td>
<td>0.008</td>
</tr>
<tr>
<td>20 Nurses should be permitted to initiate changes in patient care without prior physician approval</td>
<td>1.93 ± 0.70</td>
<td>1.54 ± 0.65</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>

Pooled Survey Results By Domain

NOTE: Results are expressed as the mean value of responses to selected categories of questions. Responses range from “Strongly Disagree” (1) to “Strongly Agree” (4).

* Significantly different from medical student category, p<0.05

Conclusion

- Resident physicians’ perceptions of the nurse-physician relationship are significantly less favorable than the views of third year medical students.
- Differences particularly pronounced in the areas of authority and responsibility.

References


Impact of Interprofessional Education in a Community Setting on Student Attitudes and Learning: A Pilot Study
Amber Dallwig MSN¹, Joseph House MD², Karen Farris PhD³, Leslie Smith DPT⁴, Tazin Daniels PhD⁵
¹ School of Nursing, 2 Medical School, 3 College of Pharmacy, 4 School of Health Professional and Studies (Flint), 5 Center for Research on Learning and Teaching; University of Michigan

Method (Figure)

Design. A mixed method approach with pre- and post-experiment and a focus group
Participants. All students enrolled in the course were asked to participate in the surveys. A cohort of students provided their service learning at MOW and were asked to participate in additional study activities.
Intervention. Students assigned to MOW conducted up to 6 intra-professional nutritional assessments and up to 6 inter-professional nutritional assessments.
Data collection. All students (n=72) were asked to complete the Inter-professional Attitude Scale (IPAS) at the beginning and end of the semester. The IPAS focuses on core competencies (Norris et al., 2015).

Results

65% of students (47 of 72) completed the baseline survey. The majority were between 23-25 years old, and 70% were female (Table 1). Almost half were student pharmacists.

IPAS average scores were positive, and patient-centeredness and diversity/equity showed the strongest (lowest) agreement (Table 2).

The community connectedness subscale varied by age and race, where respondents between 23 to 25 had more positive (lower) attitudes and Other race had less positive (higher) attitudes (Figure).

Results (to date)

Table 1. Demographic Characteristics (n=47)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
</tr>
<tr>
<td>20-22</td>
<td>36.2</td>
</tr>
<tr>
<td>23-25</td>
<td>42.6</td>
</tr>
<tr>
<td>&gt;25</td>
<td>14.9</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>70.2</td>
</tr>
<tr>
<td>Male</td>
<td>29.8</td>
</tr>
<tr>
<td>Race</td>
<td></td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>57.4</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>25.5</td>
</tr>
<tr>
<td>Other</td>
<td>16.6</td>
</tr>
<tr>
<td>Program</td>
<td></td>
</tr>
<tr>
<td>Pharmacy</td>
<td>48.9</td>
</tr>
<tr>
<td>Kinesiology</td>
<td>21.3</td>
</tr>
<tr>
<td>Nursing</td>
<td>10.6</td>
</tr>
<tr>
<td>Other</td>
<td>18.8</td>
</tr>
<tr>
<td>Years of Education</td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>19.1</td>
</tr>
<tr>
<td>3-4</td>
<td>53.2</td>
</tr>
<tr>
<td>5-7</td>
<td>14.9</td>
</tr>
</tbody>
</table>

Table 2. Average Scores for the IPAS Subscales

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teamwork Roles and Responsibilities</td>
<td>1.68</td>
<td>0.33</td>
</tr>
<tr>
<td>Patient-centeredness</td>
<td>1.16</td>
<td>0.35</td>
</tr>
<tr>
<td>Interprofessional Roles</td>
<td>2.07</td>
<td>0.69</td>
</tr>
<tr>
<td>Diversity and Ethics</td>
<td>1.18</td>
<td>0.33</td>
</tr>
<tr>
<td>Community Connectedness</td>
<td>1.34</td>
<td>0.46</td>
</tr>
</tbody>
</table>

References

Background
Silos of health care education continue to exist throughout many universities despite a major paradigm shift towards interprofessional care (IPC) (Haggarty and Dalcin, 2014).
Further, new healthcare graduates are expected to work collaboratively in medical centers and hospitals providing client focused care.

Objective
The goal of these interprofessional faculty was to utilize an already existing community partnership with Meals on Wheels (MOW) to intentionally modify the student experience (same professional vs inter-professional) and determine the impact on student learning.
This approach is consistent with the National Academies of Sciences, Engineering, and Medicine (2016) to educate health professionals regarding the social determinants of health, by engaging students through interprofessional projects in and with communities.

IPE Course/Activity
Service Learning for Health Professionals was expanded to include Medicine, Pharmacy, Public Health, Nursing, Social Work and Kinesiology.
This course is a 2-credit course for both undergraduate and professional students. 72 students were enrolled in the course.
12-13 students had their service learning at MOW.
Nursing students’ oral health-related education, knowledge and behavioral intentions: Comparing dental and nursing students’ attitudes

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University of Michigan - School of Dentistry, Ann Arbor, MI

ABSTRACT

Objectives: The objectives were to analyze junior and senior nursing students’ oral and health-related educational experiences, backgrounds and children who experience severe challenges when seeking oral health care services. Nursing students do not receive a strong oral health-related education and therefore are not sufficiently knowledgeable and skilled to engage in oral health-related interprofessional care. CONCLUSIONS: Nursing students do not receive a strong oral health-related education and therefore are not sufficiently knowledgeable and skilled to engage in oral health-related interprofessional care. However, they are interested in such activities and dental students value the nursing students’ collaboration highly. Educational efforts are needed to prepare nurses optimally for IPC with dental care providers.

AIMS

The objectives were to analyze junior and senior nursing students’ oral health-related educational experiences, backgrounds and children who experience severe challenges when seeking oral health care services. Nursing students do not receive a strong oral health-related education and therefore are not sufficiently knowledgeable and skilled to engage in oral health-related interprofessional care. However, they are interested in such activities and dental students value the nursing students’ collaboration highly. Educational efforts are needed to prepare nurses optimally for IPC with dental care providers.

METHODS

The first objective was to analyze junior and senior nursing students’ oral health-related educational experiences, backgrounds and children who experience severe challenges when seeking oral health care services. Nursing students do not receive a strong oral health-related education and therefore are not sufficiently knowledgeable and skilled to engage in oral health-related interprofessional care. However, they are interested in such activities and dental students value the nursing students’ collaboration highly. Educational efforts are needed to prepare nurses optimally for IPC with dental care providers.

RESULTS

The second objective was to analyze junior and senior nursing students’ oral health-related educational experiences, backgrounds and children who experience severe challenges when seeking oral health care services. Nursing students do not receive a strong oral health-related education and therefore are not sufficiently knowledgeable and skilled to engage in oral health-related interprofessional care. However, they are interested in such activities and dental students value the nursing students’ collaboration highly. Educational efforts are needed to prepare nurses optimally for IPC with dental care providers.

DISCUSSION

Given that substantial percentages of U.S. citizens are still not receiving the oral health care services they need, an increase in oral health-related interprofessional care (IPC) is required. Assessing that nursing students will be better educated about oral health-related care for their patients could increase nurses’ involvement in oral health care. If hospitals and patients engage in oral hygiene efforts and are screened for oral disease that could compromise their care. The fact that dental students’ attitudes concerning nursing students’ oral health-related education, rather positive is a promising starting point for future IPC.

CONCLUSIONS

Nursing students do not receive a strong oral health-related education and therefore are not sufficiently knowledgeable and skilled to engage in oral health-related interprofessional care. However, they are interested in such activities and dental students value the nursing students’ collaboration highly. Educational efforts are needed to prepare nurses optimally for IPC with dental care providers.

REFERENCES


2. Czarnecki GA, Klooteste SJ, Bayorton JR, Inglehart MR. Nursing students’ oral health-related educational experiences, backgrounds and children who experience severe challenges when seeking oral health care services. Nursing students do not receive a strong oral health-related education and therefore are not sufficiently knowledgeable and skilled to engage in oral health-related interprofessional care. However, they are interested in such activities and dental students value the nursing students’ collaboration highly. Educational efforts are needed to prepare nurses optimally for IPC with dental care providers.

ACKNOWLEDGEMENT

We want to thank the faculty members for allowing us to distribute the surveys at the end of their classes to the students and all the students who participated in the surveys.
Interprofessional Education Seminar And Clinical Experience at a Medical Student Run Free Clinic
Jolene R. Bostwick, PharmD, BCPS, BCPP; Diana Ellis, DDS; Marilyn S. Filter, PhD, CNM, MS, RN; Emily Ginier, MLIS; Thomas Templin, PhD; Gina Shereda, PhD.

Background
There is currently a potential gap within our health science curricula: students within health professions are educated in silos. There is a need to bring students together to engage in interprofessional education and Collaboration (IPEC) activity whereby they address healthcare issues collaboratively and explore the opportunities.

Project Goal: Students will demonstrate a readiness and effectiveness in engaging as an interprofessional team.

Objectives
1. To demonstrate IPEC competencies
2. To partner with an established student run medical clinic
3. To increase collaboration between health science professions through clinical service provided to patients
4. To improve patient care experiences
5. To address gap within health science curricula
6. To connect clinic experience with semester-long seminar course

Objectives for students enrolled based on the four domains of IPEC competencies:
1. To learn more about the concept of interprofessional communication
2. To enhance understanding of the needs of underserved populations
3. To develop team building and communication skills
4. To develop assessment skill when working with the underserved in a multidisciplinary team

IPEC Core Competencies
- Values and Ethics: Work with individuals of other professions to maintain a climate of mutual respect and shared values
- Roles and Responsibilities: Use understanding of one’s own role and those of other professions to appropriately assign and address the health care needs of patients and populations served
- Interprofessional Communication: Communicate with patients, families, communities, and other health professionals in a compassionate and respectful manner that supports a team approach to the maintenance of health and the treatment of illness
- Team and Taskwork: Apply relationship building values and the principles of team dynamics to perform effectively in different team roles to plan and deliver patient/population centered care that is safe, timely, efficient, effective and equitable

Course Description
A 2 credit interprofessional education (IPE) seminar/clinical will be offered in the fall of 2017. Students from Kinesiology, Pharmacy, Dentistry, and Nursing may enrolled in the course. Students will be introduced to interprofessional education and collaboration and be prepared to interact with students and professionals in various healthcare professions at the Medical School Student Run free clinic in Pinckney, Michigan. Students will attend supervised clinics throughout the semester.

Discussion
Potential Benefits:
Students will experience and work in IPE groups.
Students will gain an appreciation for interprofessional collaboration, especially surrounding the roles of various disciplines.
Through the seminar and experiential portions, students will be able to directly apply and discuss what they have learned in each setting.
Patients will gain increased coordinated and comprehensive care for improved health outcomes.

Potential Risks:
It can be a challenge to achieve acceptance and buy-in from medical professionals who manage the clinic. It can be difficult to receive buy-in, commitment, and interest from students to working in this clinic, which is off campus. Acceptance from patients who are currently receiving care from medical students may have concerns about working with professionals who are in healthcare fields other than medicine.
BACKGROUND

The Milestones are the knowledge, skills, attitudes, and other attributes for the six ACGME Competencies organized in a developmental framework from less to more advanced. In Obstetrics and Gynecology, Level One is the level expected of an incoming intern.

Medical schools currently are struggling to create individual curricula to meet the Milestones Level One requirements. Simulated pages have been used to prepare fourth year medical students for patient care responsibilities. Communication and professionalism competencies additionally present assessment challenges at the undergraduate medical education level.

A simulated paging curriculum provides an opportunity to assess and supply feedback on the level one milestone of Professionalism and Communication competencies for medical students matching into OB/GYN residencies.

STUDY DESIGN

Fourth year medical students enrolled in a four week resident preparation course for OB/GYN. The paging curriculum was a portion of this course. All students participated in 2015 and 2016. Certified Nurse Midwives (CNM) completed a one hour training session prior to initiating and directing the simulation. Each CNM simulated the role of a floor nurse. A standard page was sent. The time from when a page was sent to when it was returned was recorded. The CNM next gave a standard sentence or two. Subsequently, she and the student completed the simulation. Upon conclusion of each case, the CNM assessed level one communication competencies for each student using a 100mm visual analogue scale and rated global effectiveness in communication using a 1-10 scale. Finally, gave the student immediate feedback on clinical care and communication. (Fig:2)

RESULTS

Sixteen students participated in 2015 and 11 in 2016. Complete data for 2015 was 104 cases (128 total cases with 24 incomplete forms). All cases were complete for 2016. Professionalism was evaluated via responsiveness to a page. The students are given instructions during a one hour orientation to the paging curriculum of the four week course in which they are asked to stop whatever activity they are doing to answer a page. A response time within five minutes occurred for 83% of the 171 pages sent. 60% of pages were returned in under 3 minutes. (Graph 1)

The mean score for ‘respectful when communicating’ and ‘cooperative when communicating’ was 87 and 86% respectively. Assessment of ‘structured when communicating’ had a mean of 77% and ‘able to gather and share information’ 75%. The overall mean score for global effectiveness of communication during the scenario was 9. (Graph 2)

Six cases (four obstetrical and two gynecology) were the same both years. The two eliminated cases were included (GYN 3 and 4). Graph 3 depicts that for some of the cases, 100% of the students are respective and cooperative when communicating during the simulation. However, fewer students are able to communicate in a structured manner over the phone, gathering and sharing information for the same cases.

CONCLUSIONS

Despite the limitations, this paging simulation explores the possibility that a paging based curriculum can assess Professionalism and Communication level one competencies for medical students entering residency in Obstetrics and Gynecology. An opportunity exists to improve structured conversation and gathering/sharing information over the telephone through simulations such as these. Lastly, this structure allows for immediate feedback on clinical care and communication.

REFERENCES

Santos, S, Rademaker N, Harvis S, Khandelwal S, Haff F, Zinner S. How competent are fourth year medical students entering residency in Obstetrics and Gynecology? An opportunity exists to improve structured conversation and gathering/sharing information over the telephone through simulations such as these. Lastly, this structure allows for immediate feedback on clinical care and communication.


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LIMITATIONS

There are several limitations to the study. The sample size spans two years and is small. Also, annually, portions of the simulation and curriculum are changed, including the cases, the student didactic sessions, and CNM training sessions. This makes comparisons across years challenging.

OBJECTIVE

- Improve preparedness of our medical students for residency
- Use a paging curriculum to assess professionalism and interpersonal and communication milestones

Fig 1: Graphic representation of Level One Milestone- Professionalism and Communication

Fig 2: Obstetrical case 1: Vulvar Hematoma

Graph 1: Response times

Graph 2: Average score for Milestones for all cases

Graph 3: Number of students evaluated above the 85th centile on the visual analogue score in the competencies.

Graph 2: Obstetrical case 1: Vulvar Hematoma

Graph 3: Number of students evaluated above the 85th centile on the visual analogue score in the competencies.
Incorporating Social Justice Grand Rounds into an Existing Pharmacy Ethics Course

Gundy Sweet, PharmD, Daniel Fischer, LMSW, David Fulkerson, LLMSW

Background

National recommendations, accreditation bodies, and U-M initiatives have resulted in a movement to incorporate interprofessional education (IPE) into health-science curricula.

The goal of expanding the educational background of health-science students is to improve the triple aim of healthcare:

- Improve the patient experience
- Improve population health
- Reduce cost of care

Implementing meaningful IPE experiences can be challenging due to infrastructure barriers including time, resources, and logistics.

Pharmacy Ethics Course

- Fall term, required course for all third year pharmacy students
- Goal: To understand and apply ethical principles to challenging, real-world clinical dilemmas
- Topic-based discussions that bring evidence-based medicine, ethical principles and clinical dilemmas into the classroom

Social Justice Grand Rounds (SJGR)

- Structured event at Michigan Medicine that formally unites social work constituents including MSW students, field instructors, faculty, and staff social workers
- Goal: To address social injustice through an actual case illustrative of injustice in health care
- Educational session provided by MSW student doing field work at Michigan Medicine
- Typical format includes SW student presentation of a clinical case that highlights a relevant social justice issue affecting clinical practice
- The presentation is followed by a expert panel discussion and audience discussion

Creating the IPE Event

- SJGR was incorporated into the pharmacy ethics course in November 2016
- Participation was required for all 3rd year pharmacy students and for MSW students doing field work at Michigan Medicine
- Faculty outlined learning objectives and defined the structure to ensure there was intentional time where students would interact with each other
- Social work faculty had the lead for SJGR and pharmacy faculty had the lead for defining learning objectives and assignments

Assessment

Anonymous survey to provide feedback on the value of the IPE experience

Post-class reflection to identify:
- Take-away message from the session
- Change in approach to care as a result of participating in this IPE event

Educational Program: Transgender Care

Program objectives:

- Identify factors that optimize care provided to transgender people
- Discuss ways in which interprofessional collaboration can influence overall patient care

Assignments prior to SJGR:

- Prework readings designed to guide learning and familiarize students with LGBTQ terminology
- Voluntary, anonymous survey sent to all students 3 weeks in advance allowing them to ask any questions they have on the topic
- Survey responses used to guide interprofessional panel discussion points during SJGR session

SJGR session:

- Students met in small interprofessional groups (2 Rx/1SW) for 30 minute discussion to explore each discipline's role and perspective on the topic
- Two discussion prompts were provided to guide the discussion

Survey Questions | Pharmacy Students* | SW Students*
--- | --- | ---
Increased understanding of LGBTQ care | 93.8% | 89.3%
Increased understanding of health disparities | 96.2% | 100%
Increased appreciation for actions to create a welcoming environment | 92.3% | 96.4%
Improved understanding of other discipline’s perspective | 91% | 92.9%
IPE nature of event enhanced learning | 91% | 86.2%
Greater appreciation for importance of IP teamwork and communication | 91% | 93.1%

Results

Demographics

151 attendees present at SJGR
- 78 pharmacy and 29 social work students
- 44 licensed social workers

Overall Impressions

All students reported increased awareness of healthcare needs of LGBTQ people pre vs post (p<0.001; NSD between student cohorts

*Percentages indicate Agree/Strongly Agree

Purpose

Faculty from pharmacy and social work combined two existing activities (didactic pharmacy ethics course and social justice grand rounds) as a means of creating a meaningful IPE experience that brought student learners together in a real-world setting.

Conclusions

Combining two existing activities was an effective way of incorporating IPE.

Students from both cohorts saw value in the program, learning about the topic and about each other’s disciplines.

This program will continue in the 2017/18 academic year with consideration given to expanding to other disciplines.
The Shark Tank – Medical Innovation Program

Adish Parikh1; Seth Klapman1; Patrick Li1; Ali Arastu1; Jessa Miller1; Neal Al-Attar1; Owen Brown1; Mark Cohen, MD2

University of Michigan Medical School1, University of Michigan Department of Surgery2

BACKGROUND

Medical education has traditionally focused on teaching basic sciences and clinical applications through didactic lectures. Although this plays an integral role in students’ education, training students to become physician leaders to address tomorrow’s macroscopic healthcare problems is lacking. With growing inefficiencies in healthcare, our future physicians must work with individuals across campus and the health system to create innovative solutions. The Medical Innovation Group (MIG) was founded to address the gap in education. For the first time, MIG, along with the Surgery Interest Group (SCRUBS), created an innovation incubator that culminated in a pitch competition for the University of Michigan Medical School student body.

The shark tank program was funded by supported by the University of Michigan Medical School, the Department of Pathology, and Department of Surgery.

CONCLUSIONS

Nine teams of 34 medical students were created. Teams developed innovative ideas to address modern healthcare problems. Projects ranged from medical devices to social networks. Along the way, we made strong partnerships with several entrepreneurial programs across the UM community. We were able to create a 7-month student incubator program, which led to the Shark Tank Finale- an opportunity for teams to publically compete for a chance to win $4,000 in grants to further develop their innovations.

METHODS

2012: Establishment of MIG

- Funding provided by the Department of Pathology at the University of Michigan via Dr. Jeffrey L. Myers
- Initial board consisted of four pre-clinical medical students

Spring 2013: First seminars and design-thinking workshops

- Informal coffee talks brought students from colleges across the university
- Lunch seminar topics ranged from prototyping, 3-D printing, elevator pitching, needs-identifying as well as success stories from faculty across campus

April 2016: Initial Shark Tank Interest Meeting

- M1 students discussed areas of interest
- Teams of 3-4 students were formed based on innovation interest
- Devices
- Diagnostics
- IT
- Individual team members identified physicians in clinic/OR to identify areas for intervention

July 2016: Initial Faculty Pitch Night

- Teams prepared preliminary slide decks and pitched ideas to a faculty panel
- Faculty provided teams with feedback regarding the clinical utility of the proposals
- Each team was paired with one faculty to serve as a team advisor

September 2016: Introduction to M1 class

- Presented the program to the new U of M M1 class to recruit students
- Attracted 14 new M1 participants
- Coordinated with Entrepreneurship Path of Excellence program

October 2016: FFMI Early Tech Development Course

- Partnership with Fast Forward Medical Innovation program
- Student teams participated in 4-week entrepreneurship course
- Education on needs-finding, customer discovery, and business plans

November 2016 Partnered with MJM and Innovate Blue

- Worked with Michigan Journal of Medicine to create business model submissions
- Partnered with Innovate Blue to highlight the program and our teams

December 2016: The Finale

- Partnered with Innovatrum to host the final pitch competition
- “Sharks” from the entrepreneurial and venture capital world judged teams
- Five final teams, over 50 audience members
- $4000 in grants for top two teams

The Future: The Growing Shark Tank

- Plans to recruit students from other top UM programs
- Attract angel investors and venture capitalists
- Growing pool of resources to support student ventures
MISSION
Promote the total well-being of vulnerable person while reducing avoidable healthcare costs.

Design by K. Reid

COMPLEX CARE MANAGEMENT PROGRAM TEAM

Interprofessional Education in Practice
Fox, RN, Heather Rye, LMSW, Brent C. Williams, MD, MPH

Patients
High-Need, High Cost

Community
Medical
Behavioral
Resources
CN
SWK

Relationship-Based

PCP
RN
Inpt
Specialty

LEARN

Skills
Knowledge
Observe
Participate

SW Students
PharmD Students
Med Students
Nursing Students
Introduction

• Medical students often worry over what aspects of their experiences—those with mentors, in clerkships, and elsewhere—might help them match most effectively in their field of choice.

• For students interested in General Surgery and surgical subspecialties, previous authors have identified factors like early mentorship, increased time in the operating room, relationships with residents and faculty, and personality type as associated with the choice of a surgical career.[1-3]

• Students who perform better in a clerkship, as evaluated by clinical skills or clerkship grade, tend to go into that field, including surgery.[4,5]

• Given the importance of the clerkship grades, the factors that can affect them—most prominently clinical performance and shelf exam score—must be considered.

• Using data from the years of students who passed through the Surgery and Internal Medicine clerkships at the University of Michigan Medical school, we sought to assess what factors (including preclinical mentorship, grades, shelf score, and clerkship timing) are associated with choosing a career in General Surgery or a surgical subspecialty.

• In addition, we investigated how timing, shelf score, and mentorship affected the clerkship grades themselves, and what factors were associated with a match at a highly-regarded residency program in a surgical specialty.

Materials and Methods

• We reviewed grading, residency placement, and mentorship data for all students who passed through the Surgery and Internal Medicine clerkships at a single allopathic medical school from 2010-2015.

• For each student, data collected included grade on each clerkship (Honors, High Pass, Pass, Fail), shelf score in the clerkship, the presence of preclinical mentorship, students’ grades, and clerkship timing were used to analyze the data.

• Chi-square testing, Student’s t-test, logistic regression, and ordered logistic regression were used to analyze the data.

• Data was analyzed by considering groups of students—groups included students who matched into general surgery, students who matched into a surgical subspecialty (excluding Ophthalmology and Obstetrics and Gynecology), students who matched into any surgical field (including Ophthalmology and Obstetrics and Gynecology), and students who matched into any non-surgical field.

Table 1: Factors Associated with Clerkship Grade

<table>
<thead>
<tr>
<th>Factors</th>
<th>OR</th>
<th>95% CI</th>
<th>P-value</th>
<th>OR</th>
<th>95% CI</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgery Shelf Score</td>
<td>1.14</td>
<td>1.12-1.16</td>
<td>&lt;0.0001</td>
<td>1.09</td>
<td>1.08-1.10</td>
<td>0.007</td>
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<tr>
<td>IM Shelf Score</td>
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<td>1.07-1.11</td>
<td>&lt;0.0001</td>
<td>1.08</td>
<td>1.05-1.10</td>
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<tr>
<td>Surgery After Internal Medicine</td>
<td>1.07</td>
<td>0.82-1.40</td>
<td>0.556</td>
<td>0.97</td>
<td>0.74-1.27</td>
<td>0.843</td>
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<tr>
<td>Presence of Surgery Mentorship</td>
<td>0.86</td>
<td>0.59-1.25</td>
<td>0.546</td>
<td>0.85</td>
<td>0.55-1.32</td>
<td>0.388</td>
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</tbody>
</table>

Discussion

• This study of five years of students in Surgery and Internal Medicine clerkships at an allopathic U.S. medical school shows that students who matched into surgical fields did proportionately well in their Surgery clerkship.

• The strongest measureable factor affecting grade in Surgery and Internal Medicine clerkship was shelf score.

• Students interested in Surgery and surgical subspecialties were distributed evenly across the year.

• There was no significant variance in grades in Surgery or Internal Medicine based on timing of clerkship.

• The largest limitation to this dataset is the lack of information on clinical evaluations. We also did not analyze demographic factors like gender, age, or ethnicity, which have been shown to be predictors of clerkship grades.

Conclusions

• This study has shown that students are more likely to match into General Surgery or a surgical subspecialty if they receive higher grades in Surgery and Internal Medicine.

• Students with higher Surgery grades are more likely to match into a highly-regarded residency program in their field of choice.

• Order of clerkship and presence of preclinical mentorship were not associated with higher grades or with a higher chance of matching into General Surgery or another surgical field.

• While mentorship may often guide students towards a surgical career, this study indicates that preclinical surgical mentorship is not necessary to match into a surgical field.

• Overall, this study demonstrates that students who do well in Surgery and Internal Medicine are competitive candidates for the Match in surgical specialties, and students are able to alter their path during their clinical clerkships and successfully choose a new career.

References


Multidisciplinary Clinical Nutrition Elective

Jill R. Cherry-Bukowiec MD, MS, PNS, FACS, FCCM
Theresa Han-Markey MS, RD
Grace Heymsfield, BS
Michael D. Kraft, Pharm.D., BCNSP

University of Michigan, Ann Arbor, MI

(1. Department of Surgery, School of Medicine, 2. School of Public Health, 3. School of Pharmacy)

Background

• Interprofessional education is becoming a required component for most health professional training.
• Clinical nutrition education in US medical schools, residencies, and fellowships has been considered inadequate to meet the needs of the trainees and the public.
• We developed a pilot multidisciplinary (and subsequently interdisciplinary) nutrition elective which would leverage local, multidisciplinary expertise in nutrition through a short immersion elective to meet the needs of our trainees.
• To our knowledge, this pilot project was the first of its kind in creating a multidisciplinary learning approach mimicking real world practice in clinical nutrition at the University of Michigan.

Objectives & Description

• The elective consists of 4 types of discipline trainees: Surgical Critical Care Fellows, M4 students, Pharmacy Residents and/or students, and Master’s Degree prepared Dietetic Interns and/or students.
• The objectives for the project are as follows:

1. Diagnose common nutrition issues in hospitalized patients.
2. Formulate nutrition therapy plans.
3. Experience new and cutting edge research and clinical nutrition treatment environments.
4. Collaborate and work within a multidisciplinary team.

Week 1 Sample Schedule:

<table>
<thead>
<tr>
<th>Day/Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.M.</td>
<td>Orientation</td>
<td>Clinical Rounds</td>
<td>Clinical Rounds</td>
<td>Clinical Rounds</td>
<td>Clinical Rounds</td>
</tr>
<tr>
<td>Lunch</td>
<td>Nutrition Advisory Committee Meeting</td>
<td>Journal Club</td>
<td>Nutrition Supplements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P.M.</td>
<td>Body composition lecture</td>
<td>TPN lecture</td>
<td>Lecture: Complications</td>
<td>Lecture: EN access</td>
<td>Visit Lab: Morphomics</td>
</tr>
</tbody>
</table>

• Each elective lasts 2-4 weeks

Results

• The third and fourth session blocks of this elective course is currently being completed
• 2 fellows, 6 dietetic interns, 1 MPH student, 1 PharmD resident and 3 M4 students completed the first three blocks

Lessons Learned

• Feedback was uniformly positive about the educational experience
• 100% of trainees would recommend this course to others
• Participation on rounds in the TBICU added an additional valuable dimension to the educational experience of learning about critical care and team dynamics

Next Steps

• We plan to formalize the rotation and expand the program to allow more students to experience the elective.
• We also plan to present the results at national meetings and publish the results in nationally recognized peer reviewed journals.

Project Funded by the Academy of Medical Educators Small Grants Program
Interdisciplinary Team Training within the TBICU: A Pilot Study

Jacob Gillen MD, Anna Krzak PA-C, Sarah Taylor MS RN ACNS-BC, Jill Cherry-Bukowiec MD, MS

Department of Surgery, University of Michigan, Ann Arbor, MI

Background

- Interdisciplinary team training is increasingly recognized as a valuable strategy to improve teamwork and patient care within health systems, and facilitates interprofessional education opportunities
- This educational structure is especially valuable in preparing to care for critically-ill patients in high-stakes situations
- Our project used an interdisciplinary team training format with simulated patient scenarios to educate members of the Trauma Burn Intensive Care Unit (TBICU) staff
- We hypothesized that these training sessions would educate staff on the management of critically ill patients, improve team dynamics, and improve the teamwork culture within the TBICU

Methods

- Two simulated patient scenarios were created based on actual patient events within the TBICU
- After the scenarios were written, they were programmed to be run on a simulation mannequin “Sim Man” in conjunction with the University of Michigan Simulation Center
- TBICU staff, including nurses, physicians, respiratory therapists, pharmacists, and ICU technicians were recruited to participate in the pilot study and divided into interdisciplinary teams
- Each team performed two patient scenarios, debriefing after each scenario
- The scenarios were run in an empty patient room within the TBICU
- Participants were surveyed after each scenario using the Team Emergency Assessment Measure, a well validated survey of teamwork while caring for critical patients
- Additionally, an observer not involved in the scenario evaluated each team using the same survey

Results

- The pilot study involved 17 participants divided into two separate teams (8-9 participants per team)
- Feedback was uniformly positive about the educational experience
- After debriefing the first scenario, overall teamwork scores trended towards improvement in the second scenario (8.61 vs 9.00, p=0.37)
- Performing the pilot study within the TBICU uncovered several items for improvement within the unit
  - For example, angiocaths used to dart a chest for tension pneumothorax were out of stock

Lessons Learned

- Team training is an effective strategy for applying medical knowledge within critically-ill patient scenarios
- Practicing and debriefing about teamwork can be a mechanism for improved team dynamics and patient care
- Simulated patient encounters is a valuable strategy to identify areas for improvement in patient safety on the unit

Next Steps

- We will build off the lessons learned from this pilot study as we continue future team training sessions using these two scenarios with additional TBICU staff
- Eventually we hope to expand this project design to other Intensive Care Units within the University of Michigan, and create a template program that can be adopted by ICU’s at other institutions

Project Funded by the University of Michigan CME Innovation Grant, the Department of Surgery, and supported by UMHS Nursing
The objectives were to assess dental students’ (a) didactic and (b) clinical interprofessional education (IPE) and eating disorders (ED) education and (c) perceived preparedness to communicate with patients and other health professionals about ED, and (d) examine how communication preparedness, educational experiences and attitudes correlate with IPC and ED responses.

Methods: Anonymous survey data were collected from 596 dental students from 22 U.S. dental schools about the amount of IPE and ED didactic and clinical education and their perceptions and intentions for IPC and treating patients with ED. One specific cohort of students (D4) was identified as having already graduated by the time the survey was completed.

Results: Overall, ED- and IPC-related clinical education was not evaluated positively, with first year students (D1) reporting the lowest amount of clinical education about general health-related issues (2.98; p<0.01), and D4 students reporting the highest amount of clinical education about ED (2.89; p<0.01).

Conclusions: Students felt better prepared for IPC-related communication. All educational experiences and attitudes were positively correlated with communication preparedness. The results showed that although average reported amounts of IPE and ED education were somewhat low, as quantity of such educational experiences increased, students felt better prepared to discuss oral, general, and mental health issues with patients and to communicate interprofessionally. Students’ attitudes about ED, dental involvement, and IPC were positively correlated with communication preparedness, but these correlations were lower than those between educational indices and preparedness. As students’ preparedness to communicate with patients and in IPC increased, intention to engage in IPC increased. Overall, this may suggest that knowledge and understanding of health issues are important; helping students feel prepared to communicate with this knowledge may be key to actualizing IPC for ED.

The fourth objective was to assess the relationship between IPC- and ED-related responses and communication preparedness, educational experiences, and attitudes. Table 4 shows these correlations. Increased extent of educational experiences positively correlated with communication preparedness.

The results showed that although average reported amounts of IPE and ED education were somewhat low, as quantity of such educational experiences increased, students felt better prepared to discuss oral, general, and mental health issues with patients and to communicate interprofessionally. Students’ attitudes about ED, dental involvement, and IPC were positively correlated with communication preparedness, but these correlations were lower than those between educational indices and preparedness. As students’ preparedness to communicate with patients and in IPC increased, intention to engage in IPC increased. Overall, this may suggest that knowledge and understanding of health issues are important; helping students feel prepared to communicate with this knowledge may be key to actualizing IPC for ED.

CONCLUSIONS

Given that IPE and ED education correlate with more positive IPC perceptions, dental school curricula can promote IPC by providing students with more, rich IPE and specifically about ED may be necessary to increase the likelihood that dentists will participate in IPC for patients with ED. Moreover, providing students with opportunities to develop skills and confidence in IPC, ical. Additional studies to determine which experiences would most help students to develop communication skills may help improve education to promote IPC.

REFERENCES


ACKNOWLEDGMENTS

We would like to thank the University of Michigan School of Dentistry education program and the Department of Periodontics, and the University of Michigan School of Dentistry for their support of this research. We would like to thank the University of Michigan School of Dentistry for their support of this research. We would like to thank the University of Michigan School of Dentistry for their support of this research. We would like to thank the University of Michigan School of Dentistry for their support of this research.
Background

Interprofessional care is critical to the future of health care.¹ IPE involves groups of students from at least two disciplines learning together and interacting with each other.² Efforts to understand how to implement IPE effectively at the University of Michigan are in its infancy. However, IPE efforts and innovation are growing. In early Winter term of 2016, the Michigan Center for Interprofessional Education charged a group of faculty to develop an IPE effort centered on Motivational Interviewing (MI). The group who developed the pilot IPE-MI workshop series consisted of faculty from UM across health disciplines (Dental Hygiene, Dentistry, Medicine, Nursing, Pharmacy, Physical Therapy (UM Flint), Public Health, and Social Work).

Project Goals

The goals for the pilot were to evaluate (1) the feasibility of teaching MI in an IPE format and (2) the ability to maintain quality of MI content while (3) meeting the IPE objectives.

Actions, Methods of Intervention

- The faculty group worked together to design, plan, and implement the workshop, which would be held in two 3-hour blocks one week apart early in the Winter Term, 2017.
- The workshop series was an optional experience offered to a maximum of 12 students from health science schools across all of the University’s campuses.
- Marketing materials were sent and shared with students from each school by respective faculty to elicit interest. Interested students completed a brief survey to indicate their level of experience with IPE and MI.
- Students had mandatory pre-requisite readings to ensure a shared MI background prior to the two, 3-hour workshop sessions.
- Learning objectives for the workshops included:
  (1) Learning across disciplines about the use of MI with a variety of patients and problem areas.
  (2) Working with individuals from other professions to foster a climate of mutual respect and shared values.
  (3) Learning cutting-edge MI skills that can improve treatment engagement across disciplines.
  (4) Understanding of the challenges that various disciplines face in engaging and treating patients.

Results

Students’ prior experience with IPE and MI ranged from “none” (N=12/N=10) to “extensive” (N=4/N=2). Means on scale from 1=none to 4=extensive were 2.37 for IPE and 2.47 for MI. Open-ended responses reflected commitment to and interest in IPE.

Lessons Learned

This experience served as the first didactic IPE experience for most of the participating faculty. Faculty debriefs identified the following positive outcomes and challenges to inform adjustments to future offerings.

Positive Outcomes:

- Faculty from 8 health science disciplines implemented the workshop series with enthusiasm and engagement to expand the scope of IPE at UM
- The workshop was well attended, with 9 health science schools represented
- Student feedback was positive and they were enthusiastic about the opportunity to engage in IPE

Challenges Faced:

- Finding meeting times for all 9 faculty members made unanimous agreement on process and content difficult
- Faculty were subdivided based on availability and meetings were mostly conducted via phone or videoconference; much communication and decisions were made via email by necessity
- Organizational structure
- Agreement on balance of MI versus IPE content

Next Steps

Faculty will continue to make efforts to meet and improve upon this first IPE-MI effort. Further, a group process has been developed for deciding on content for a workshop in Fall 2017. Grant support will be sought to help fund future IPE-MI endeavors. We will continue to analyze student feedback and engage students in our planning process. Results will be submitted for publication.

References

ABSTRACT

The objectives were to assess pre-doctoral dental students’ attitudes towards a dual DDS/business program. The first objective was to determine the respondents’ business-related educational considerations related to their dental school education. Concerning the second objective, Table 2 shows that the majority of students were not very satisfied with their current business-related dental education. However, Table 2 also shows that students were on average very interested in business related education in general.

METHODS

This study was determined to be exempt from Institutional Review Board (IRB) oversight by the IRB for the Behavioral and Health Sciences at the University of Michigan (HUM00119764).

RESULTS

The third objective was to assess dental students responses to positively formulated attitude statements and the fourth objective was to assess their responses to negatively formulated attitude related to a dual DDS/business program. Table 3a shows that the majority of students held positive attitudes towards a dual program, and Table 3b that fewer students endorsed negative statements.

DISCUSSION

The data showed an interesting divergence in the students average responses of their own business-related education and their average interest in general business-related education. Efforts should therefore be made to improve dental school education related to business-related topics. Establishing a dual DDS/business program could be one of these efforts because the majority of students evaluated such a program very positively and relatively fewer students endorsed a statement that they would prefer business-related education once they had graduated from dental school.

CONCLUSIONS

> Dental students did not evaluate their own business-related education very positively, but were on average quite positive about business-related education in general.
> Their attitudes towards establishing a dual degree program at their school were on average quite positive.
> Relatively fewer students endorsed negative attitudes.
> Subgroups of students differed in their responses and more in depth future research concerning subgroup differences would be helpful.

REFERENCES


ACKNOWLEDGEMENT

We thank the dental student respondents for taking time out of their busy schedules to participate in our survey.
The objectives were to explore:

(a) which benefits dental and dental hygiene students perceive when interdisciplinary education takes place,

(b) which curricular suggestions they have for interdisciplinary education, and

(c) whether the number of joint courses is correlated with the perceived benefits of interdisciplinary education.

The first objective was to explore which benefits students and dental hygiene students perceive when interdisciplinary education takes place. The majority of students agreed that having joint classes with dental/dental hygiene students would allow them to develop better interprofessional relationships, gain a better understanding of the roles of the members of the other profession, and a better understanding of what the other profession “is all about” (see Table 2).

The second objective was to explore which curricular suggestions students have for interdisciplinary education. Suggestions of curricular interventions included having a lecture about the roles of dentists and dental hygienists and discussions of professional roles in joint classes. Other endorsed classroom-based interactions were to include interprofessional group projects. The majority of dental and hygiene students wanted “partnering up” in lab courses; numerous suggestions were made for increased clinical interactions. Joint classes, merely educating students jointly without IPE, were supported by 45% of dental/dental hygiene students and 45% of dental students.

The third objective was to explore whether the number of joint courses is correlated with the perceived benefits of interdisciplinary education. The data showed that having more joint educational experiences and 49% wanted to take more interdisciplinary courses with each other. The second objective was to explore which curricular interventions students have for interdisciplinary education. Suggestions of curricular interventions included having a lecture about the roles of dentists and dental hygienists and discussions of professional roles in joint classes. Other endorsed classroom-based interactions were to include interprofessional group projects. The majority of dental and hygiene students wanted “partnering up” in lab courses; numerous suggestions were made for increased clinical interactions. Joint classes, merely educating students jointly without IPE, were supported by 45% of dental/dental hygiene students and 45% of dental students.

In order to assure that dental hygienists can practice in a way that allows them to utilize their complete scope of practice, future dentists and dental hygiene students need to be well educated about their mutual roles and responsibilities in the dental team. While the majority of dental and dental hygiene students perceived the benefits for joint classes, merely educating students jointly without IPE focused interactions did not result in a better understanding. This finding could be due to the fact that both groups of students realize that there is a lack of genuine interprofessional interactions in those joint classes.

CONCLUSIONS

The data showed that:

1. The majority of the students were positive about having joint classes between dental and dental hygiene students.

2. Students endorsed quite a number of suggestions for classroom-based and clinical IPE efforts.

3. Merely educating dental and dental hygiene students side-by-side in classes does not result in increased interprofessional understanding. Curricular interventions, especially in clinical settings, should be developed.

REFERENCES


ACKNOWLEDGEMENT

We want to thank the academic deans of the dental schools involved for providing a recruitment email to their students, and the students for responding to our survey.
Team Simulation to Facilitate Learning of Interprofessional Education Competencies

S Munz, DDS, M Aebersold, PhD, RN, FAAN, M Bakewell, PhD, L Cherara, BSN, RN, DNPs, D Fischer, MSW, D Kurz, MHSA, P Mullan, PhD, A Hart, MD

Background

Simulation, as a method, has been proven to foster and practice team-based decision making in health professions education. Using simulation exercises, students are provided an opportunity to develop skills in ethics/professionalism, communication, roles and responsibilities, and teams/teamwork while navigating the nuances of these behaviors in an observed and mentored setting. A simulation exercise was designed for inclusion in the University of Michigan’s Interprofessional Education (IPE) Course on Team-Based Clinical Decision Making for the Winter semester 2017. Utilizing mixed methodology, our interprofessional faculty team has three specific aims: 1) to evaluate if the sequence of these experiences affects observable team performance 2) to identify if measured teamwork attitudes and behaviors correlate to the timing of the simulation exposure and 3) how these experiences affect the students’ perception of individual and overall team performance.

Learning Objectives

1. Function as a contributing member of the team caring for an acutely ill hospitalized patient.
2. Use effective verbal and nonverbal communication skills.
3. Accept responsibility for the care of their simulated patient and her outcome(s).
4. Formulate an appropriate and achievable plan of care that is consistent with the patient’s and family’s values and goals.
5. Actively elicit input and incorporate treatment recommendations from other team members given the evolving clinical need.
6. Demonstrate respect for others’ roles and responsibilities.

Simulation and Case Studies

A group pre-brief is followed by concurrent activities:

A. an acute care simulated patient scenario involving an 88-year-old female who is acutely ill and presents for emergency evaluation after a recent surgery and hospital stay related to an oral squamous cell carcinoma.
B. a brief lecture followed by group activity utilizing a values and goals matrix to facilitate shared decision-making. The session concludes with a group debrief. There is an optional reflection that students are invited to participate in after the session ends.

Preliminary Results

Health professions students were from Medicine, Pharmacy, Nursing, Dentistry, and Social Work. There are three main assessment instruments based on:

A. the validated Communication and Teamwork Skills (CATS) Assessment framework\(^2\) with and without crisis:

B. a global assessment of readiness to practice\(^3\), graded from 1-4 as follows:

C. an optional student reflection:

Analysis and Discussion

Data from 16 teams of an anticipated total of 20 teams of IPE students. We completed a preliminary analysis of the differences in teams’ performance, comparing two groups. Group A represents those participants from Week 1 to Week 4, and Group B represents Week 5 to Week 8. Each group represents an average of \(6\) IP students from various disciplines (Medicine, Pharmacy, Nursing, Dentistry, and Social Work). The overall CATS weighted performance was 60.31 (4.87) and 81.25 (2.19) respectively, which was statistically significant to a \(p = 0.0015\). Students’ reflections on the overall simulation experience demonstrated that their perceptions of each other roles and responsibilities has changed as a result of collaboration with their teams during the course.

Table 1: Progression of Teams’ CATS Scores in Simulation Experience Over Time

<table>
<thead>
<tr>
<th>Overall CATS score</th>
<th>Simulation A</th>
<th>Simulation B</th>
<th>Simulation C</th>
<th>Simulation D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A (n = 16)</td>
<td>10.25 ± 2</td>
<td>13.53 ± 2</td>
<td>12.06 ± 2</td>
<td>16.25 ± 2</td>
</tr>
<tr>
<td>Group B (n = 16)</td>
<td>8.83 ± 2</td>
<td>13.6 ± 2</td>
<td>9.67 ± 2</td>
<td>4.44 ± 2</td>
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</table>

Table 2: CATS Assessment Scores

<table>
<thead>
<tr>
<th>CATS Score</th>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>2</td>
<td>0 (0)</td>
<td>4 (25)</td>
</tr>
<tr>
<td>3</td>
<td>10 (62.5)</td>
<td>9 (56.25)</td>
</tr>
<tr>
<td>4</td>
<td>0 (0)</td>
<td>3 (18.75)</td>
</tr>
</tbody>
</table>

References

2. Crosby J and Jolly B. Making sense of work based assessment; ask the right questions, in the right way, of the right things, of the right people. Medical Education; 2012; 46: 28-37.

Lessons Learned and Future Steps

Counter measures are considered for adjustments in the structure and function of the experience weekly. Based on student feedback thus far, unique lessons learned include an expected response to the cognitive and emotional load of managing a seriously ill patient.

Adjustment: The final team debrief was modified to include content on self-care, including dual management of the cognitive and emotional load, stress response leading to either a good or bad outcome (compassion fatigue, burnout or resilience) types of coping mechanisms (active versus avoidance), and finding balance.

Simulation has a proven track record for positive team learning despite certain known challenges, which is thus far supported in these findings. Of particular relevance, students may benefit from training in health professional self-care and coping mechanisms in acute patient care scenarios. With continued student feedback and observation data, further simulation scenarios may be developed. The process for simulation design of this module as well as identification of logistical and design challenges will be addressed in a distributable format to others who are committed to using simulation in their team-based IPE experiences.

This material is based upon work supported by the University of Michigan’s Center for Interprofessional Education, which was funded through the U-M Transforming Learning for a Third Century (TLTC) grants program. Additional project support was provided by the Center for Research on Learning and Teaching and the Interprofessional Leadership Fellows program.
Quantitative and Qualitative Assessment of Clinical Performance Feedback Given to Medical Students via an Electronic Feedback System

Gabrielle Shaughness BA, Patrick Georgoff MD, Gurjit Sandhu PhD, Lisa Leininger MPH, Rishindra Reddy MD, David T. Hughes MD
University of Michigan Department of Surgery

Objective

The feedback medical students receive during clinical rotations, traditionally verbal and not formally captured, plays a critical role in student development. This study evaluates written daily feedback given to students through a novel web-based feedback system and identifies deficiencies that may benefit from targeted education and system improvement in the delivery of medical student feedback.

Methods

A Minute Feedback System was used to collect feedback given to medical students during their surgery clerkship from May 2015-April 2016. Using qualitative content analysis, feedback comments were categorized as: Encouraging, Corrective, Specific, and Non-specific. Effective feedback was a combination of specific and either corrective or encouraging feedback; Ineffective feedback contained only non-specific comments; Mediocre feedback contained elements of both Effective and Ineffective comments.

Results

3,191 feedback requests were sent by medical students and 2,029 faculty/resident feedback responses were received. The overall response rate was 62%. Non-specific feedback comprised 80% of faculty, 83% of senior resident, and 78% of junior resident comments. Specific feedback was given by only 35% of faculty, 17% of senior residents, and 26% of junior residents. Faculty provided Effective feedback in only 16% of comments, senior residents 8%, and junior residents 17%. Mediocre feedback comprised 13% of faculty, 9% of senior resident, and 7% of junior resident comments. Ineffective feedback comprised 67% of all feedback: 60% of faculty, 72% of senior resident, and 68% of junior resident feedback.

Table 1: Categorization of feedback given to third year medical students during the surgery clerkship (by percentage)

<table>
<thead>
<tr>
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<th>Non-Specific</th>
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</tr>
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<td>Total</td>
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<td>20</td>
</tr>
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</tr>
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<td>90</td>
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<td>83</td>
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</tr>
<tr>
<td>Jr. Residents</td>
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Table 2: Examples of feedback provided by faculty and residents to third year medical students during the surgery clerkship.

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The majority of resident and faculty feedback to medical students using an electronic, email-based application during their surgery clerkship was non-specific and encouraging and therefore of limited effectiveness. Ineffective feedback is given three times more often than Effective feedback. This presents an opportunity for resident/faculty development and education regarding optimal feedback techniques.

Objective A

The feedback medical students receive during clinical rotations, traditionally verbal and not formally captured, plays a critical role in student development. This study evaluates written daily feedback given to students through a novel web-based feedback system and identifies deficiencies that may benefit from targeted education and system improvement in the delivery of medical student feedback.

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Medical Students’ Developmental Progression across the ACGME Competencies during their Clinical Clerkship Year

Helen Morgan MD, John Burkhardt MD, MA, Leif Myklebust MS, Johmarx Patton MD, Meg Wolff MD, Nikki Zaidi PhD, Sally Santen MD, PhD

Introduction

• As undergraduate medical education shifts towards competency based education, consideration needs to be given for how competencies are assessed and attained.
• The objective of this study was to determine if medical students had developmental progression across the Accreditation Council of Graduate Medical Education (ACGME) competencies during their clinical clerkship year.

Methods

• In 2014, UMMS revised the institutional competencies to include the six ACGME competencies:
  - Patient Care
  - Medical Knowledge
  - Communication
  - Professionalism
  - Systems Based Practice
  - Practice Based Learning

• Attending physicians and house officers assessed medical student performance at the completion of the seven required clinical clerkships using a standard 9 point Likert-like scale (see Figure 1)

  Figure 1. UMMS Clerkship Assessment Form Scale

• Aggregate means (at one month intervals over the course of this year), were determined for each of the competencies.
• Single linear regression analysis was performed for each competency to examine for statistically significant increases in competency measurement.

Results

From 5/2014 - 4/2016, 361 medical students were assessed

On average, students received 41 assessments

Total of 14,863 assessments

• Students demonstrated increasing competency over the year as shown by the aggregate means increasing significantly for all six of the ACGME competencies.

  Table 1 Competency Score Change Over Time
  *P<0.05, Table displays single regression results between Score and Time by Month

<table>
<thead>
<tr>
<th>Competency Domain</th>
<th>Increase in Score per Month of Time</th>
<th>Expected Change in Score over One Year</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>0.04*</td>
<td>0.48</td>
<td>0.01 - 0.08</td>
</tr>
<tr>
<td>Medical Knowledge</td>
<td>0.05*</td>
<td>0.60</td>
<td>0.00 - 0.09</td>
</tr>
<tr>
<td>Patient Care</td>
<td>0.06*</td>
<td>0.72</td>
<td>0.01 - 0.10</td>
</tr>
<tr>
<td>Practice Based Learning</td>
<td>0.04*</td>
<td>0.48</td>
<td>0.00 - 0.08</td>
</tr>
<tr>
<td>Professionalism</td>
<td>0.04*</td>
<td>0.48</td>
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<td>0.48</td>
<td>0.00 - 0.08</td>
</tr>
</tbody>
</table>

  Figure 2: Competency Score Trends Over Time

Discussion

• Our data demonstrated developmental growth of medical students across the competencies.
• If competency based education is indeed going to ease the transition between UME and GME, then we need to demonstrate learners’ developmental progression through the continuum.
Entrustment of Medical Students with Supervised Procedures during Core Clerkships
Darci C. Foote, MS; Niki Matsuko, BS; Rishindra M. Reddy, MD; Gurjit Sandhu, PhD

Introduction: Increased regulations have limited medical student participation in patient care as evidenced by declining student participation in supervised bedside procedures. Program directors across specialties and graduates themselves expressed concerns over poor preparation for internship. The authors sought to understand medical student entrustment with procedures and variances in entrustment between core clerkships (family medicine, internal medicine, neurology, obstetrics/gynecology, pediatrics, psychiatry, surgery) during the first clinical year.

Methods: An online survey was distributed to students who had completed their first clinical year at an allopathic, US-based medical school. Students were queried on attitudes towards procedures, procedures they were exposed to and performed, and factors important in enabling performance. Surrogates for entrustment were constructed including Performance Rate of Student (PDR), Procedure Difficulty Rating (PDR), and Procedure Performance Rate (PPR). Procedure complexity was incorporated through Procedure Difficulty Ratings (PDR) as assigned by clerkship directors. Entrustment was also measured through Procedure Difficulty score of Student (PDS=Σ(PDR performed)/ΣPDR exposed).

Conclusions: Medical student participation in supervised procedures is essential to developing competent graduates prepared for internship. Students express higher entrustment in procedural clerkships, especially surgery. Target areas for increased participation were identified as procedures frequently performed by interns and to which students have high exposure. Ways to increase student performance are rotating on procedural teams, simulation, and "boot camp" rotations. Additionally, faculty and resident training may help foster safe teaching methods that increase student procedural performance and ultimately preparation for internship.

Results

Figure 1: Procedure performance and exposure arranged by Procedure Difficulty Rating (PDR). Low PDR, high exposure (EF) procedures that currently have low performance frequency (PF), such as inserting an nasogastric tube, placing a surgical drain, placing a wound vac, or making an opening incision are viable targets for increased student involvement. Procedures such as placing a Foley catheter, perforating the uterus, preparing surgical drains should continue to have high student involvement.

Figure 2: Procedure performance and exposure arranged by Procedure Difficulty Rating (PDR). Low PDR, high exposure (EF) procedures that currently have low performance frequency (PF), such as inserting an nasogastric tube, placing a surgical drain, placing a wound vac, or making an opening incision are viable targets for increased student involvement. Procedures such as placing a Foley catheter, perforating the uterus, preparing surgical drains should continue to have high student involvement.

Figure 3: Procedure performance and exposure arranged by Procedure Difficulty Rating (PDR). Low PDR, high exposure (EF) procedures that currently have low performance frequency (PF), such as inserting an nasogastric tube, placing a surgical drain, placing a wound vac, or making an opening incision are viable targets for increased student involvement. Procedures such as placing a Foley catheter, perforating the uterus, preparing surgical drains should continue to have high student involvement.

Figure 4: Procedure performance and exposure arranged by Procedure Difficulty Rating (PDR). Low PDR, high exposure procedures, such as pelvic exam, pap smears, injections, and cryotherapy, are viable targets for increased student involvement.

Figure 5: Procedure performance and exposure arranged by Procedure Difficulty Rating (PDR). Low PDR, high exposure procedures, such as pelvic exam, pap smears, injections, and cryotherapy, are viable targets for increased student involvement.
Don’t Our Students Need Both? Physicians and Social Behavioral Scientists Focus on Different, Yet Mutually Important Aspects of Communication and Physical Exam Skills

Emily Hopkyn, Class of 2019 1, Julie S. Taylor, MD, MSc2, Patricia Mullan, PhD, Jennifer Stojan, MD, MHPE, Michelle Daniel, MD, MHPE1

1University of Michigan Medical School, 2The Warren Alpert Medical School of Brown University

Background:
- The enhanced Calgary-Cambridge Model was introduced in 2016.1 The model is widely used to teach combined content process-perceptual approach to clinical skills.

Methods:
- Content: At the Warren Alpert Medical School of Brown University, SBS and physicians longitudinally co-teach clinical skills 3 hours/week for 1 year.
- Participants: Grouping Participants were recruited by email from among 64 eligible faculty. Sampling was purposive to achieve maximal variation.
- Data Collection: 13 semi-structured interviews (6 SBS, 6 MD), and 3 multidisciplinary focus groups were conducted and transcribed verbatim.
- Data Analysis: The constant comparative method was used to develop a grounded theory and discourse analysis was used to determine if what SBS/MD faculty individually described as contributing to instruction was what was observed by the other.

Results:

- Representative Interview Quote
  - **Medical Interview**
    - "In many cases… the patient is not ready to provide the information you need… you have to ask questions that are open-ended and not too leading. You need to be able to listen and understand the patient’s perspective."
  - **Nonverbal**
    - "I find it helpful to observe the patient’s body language and facial expression to gauge their comfort and confidence."
  - **Medical Interventions**
    - "I think it’s important to ask questions that require thoughtful responses. By listening carefully, you can gain insight into the patient’s concerns and help guide them towards making informed decisions."
  - **Physical Exam**
    - "I focus on observing the patient’s physical responses to my questions, such as nodding or shaking their head. This helps me understand how they are processing the information and whether I am asking the right questions."

- Themes
  - **Process/Perceptions of “How”**
  - **Process/Perceptions of “What”**
  - **Process/Perceptions of “Why”**

Discussion:
- Physicians and social behavioral scientists have different approaches to instruction in clinical skills.
- Physicians may need more guides on how to deliver content, whereas social behaviorists may need more specific strategies for improving patient-physician interactions.

References:

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An Innovative Model for Clinical Skills Instruction that warrants further exploration.
Integrating Health Disparities Education into a Pre-Clinical Curriculum through Site Visits

Jacob Cedarbaum, MSEd; Maya Faison, BA; Lauren Merz, BA; Ann A. Soliman, BS
University of Michigan Medical School

Purpose

- Meaningful integration of health disparities content into undergraduate medical curricula is vital to ensuring that new physicians understand the barriers to care that many patients face.
- However, there is a notable lack of opportunities for preclinical students to gain experience with the clinics and community organizations that play a crucial role in the care of underserved patients.
- To address this shortcoming at the University of Michigan Medical School, four second year students designed a site visit experience to expose their peers to underserved populations and the organizations who serve them.

Methods

- Sixteen local partners serving the health needs of groups ranging from prisoners to American Indians to LGBTQ teens were recruited to host medical students for an afternoon.
- Students were split into groups of 6-10 and assigned to visit one site. Following the visits, students had a small group discussion to reflect on their experiences.
- M2 students were assigned to one site location and conducted a 2-3 hour visit during afternoon time allotted for their Doctoring course.
- Site visits experiences included:
  - Lecture style-experiences
  - Tours of facilities
  - Illustrative games
  - Case presentations
  - Patient interaction
- A 1-hour debrief in small groups (10-12 students), facilitated by one faculty mentor

Site Visit Locations:

- American Indian Health and Family Services
- Arab Community Center for Economic and Social Services (ACCESS)
- Catholic Social Services of Washtenaw County
- Corner Health Clinic
- Dawn Farms
- Egeler Reception & Guidance Center (Department of Corrections)
- Home of New Vision
- Hope Clinic
- Ozone House
- Packard Health
- Planned Parenthood
- Pediatric Advocacy Initiative (PAI)
- Therapeutic Riding
- Woodland Center Correctional Facility (Department of Corrections)
- Ypsilanti Health Center

Selected Narrative Feedback:

“It may have been the 2-3 hours that I have learned the most in the past month, which is not what I was expecting! The staff were so prepared—we did an interactive hour-long activity that simulated the unique challenges that some adolescents and their families face. We learned about many of the services available in the community, but also how hard it can be to access these services and how many hoops often have to be jumped through, the first of which is knowing they exist... We all found this experience so valuable and thought-provoking that my group chose to spend an hour afterwards at Starbucks talking about what we had learned and how it fit into the context of our lives and our future interactions with patients.”

“[The information provided about medical legal partnerships was very practical and applicable to our futures as 3rd year medical students, residents, and doctors.]

“[We] are glad this was included in our schedule. I hope students continue to get exposed to the care of these populations in the hopes that more doctors are drawn to these fields as a career.”

“[The site coordinators] were very welcoming and enthusiastic to have us there and teach us. This was a population that I had not learned much about before, so this visit was very informative.”

Site Coordinator Feedback

Overall experience with site visits: 4.75 / 5 (N=12)

Program Strengths:

“Overall, my experience talking with the students about our clinic was fantastic. It was great to expose students to the many services our site provides, and I loved when the students asked questions or engaged in the conversation.”

“They were very engaged in our presentation and seemed genuinely interested in the ways in which medical-legal partnerships can help address social determinants of health.”

Areas for Improvement:

“While I understand that not all students will have a passion for underserved medicine, during one of the visits, I had a particular group that did not appear engaged.”

“Prepare for the visit with anticipatory questions and some basic community knowledge.”

Site Visit Locations:

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Student Participant Feedback

Overall experience with site visits: 4.4 / 5 (N=70)

Percentage of Students (N=70)

- Recommend keeping this site for future site visits: 94.30%
- Felt experience increased knowledge and appreciation of health disparities: 85.70%
- Rated site visit as positive or very positive: 88.50%

Conclusions

Strengths:

- Exposure to new Clinical Contexts
  - Students enjoyed visiting sites that they would otherwise be unlikely to experience in traditional medical training—including prisons, FQHCs, homeless shelters, and resource centers.
- Practical Learning
  - Students appreciated learning about practical, community-based resources that different sites offered and which they could potentially recommend for future patients.
- Experience of Host Sites
  - All host sites rated their experience as positive or very positive and would want to host medical students again for future visits.

Weaknesses:

- Inconsistent Host Site Experiences
  - Host sites were given suggestions on what topics to discuss with students, but ultimately decided on their own programming. Student feedback mentioned that lecture-style experiences and lack of engagement with the population served detracted from the overall visit.
- Sites without Strict Underserved Focus
  - Some sites could have been more explicit in discussing their work with the underserved.

Future Directions:

- Addition of New Sites
  - Continue to add new sites in order to provide an even more diverse set of experiences for students. These may include AIDS clinics, women’s shelters, and school health centers.
- Encourage more Interactive Experiences
  - Sites that provided more interactive experiences (games, case presentations, and patient interactions) were especially well received.
- Incorporate into Permanent Curriculum
  - Integrate into the “Initial Clinical Experience” curriculum for the M1 2016-2017 academic year.
Addressing Unconscious Bias in Standardized Patient Performance

Jennifer Murphy, MPH, MSW, Sally Santen, MD, Laurie Whitman, MSE, David Belmonte, MD
Office of Medical Student Education, University of Michigan Medical School, Ann Arbor, MI

Background

The science of unconscious bias is an emerging area of study that explores how the human brain’s natural functioning influences people’s perceptions, behaviors, and interactions with others. Leading institutions around the country recognize the negative, and at times discriminatory, impact unconscious bias can have on its workforce and the people they serve. Michigan Medicine is currently training its staff to recognize and address unconscious bias in patient care, education, and research with colleagues, students, and patients. This includes the Standardized Patient Program at our medical school where standardized patients (SPs) are expected to be free of implicit bias as they portray designated patient roles in a consistent manner.

Action

For medical students it is important to have the opportunity to practice taking a sexual history in a safe environment. We developed a sexual history case for first-year medical students to offer them this experience. SPs were trained to portray a 35-45-year-old father in a same-sex marriage who is having difficulty with sexual dysfunction. SPs spent approximately 3 hours learning the case, practicing with their peers and SP Educators and receiving feedback prior to the real experience with our students.

Results

During training the SPs exhibited initial discomfort engaging in discussion about specific sexual behaviors. They sought clarification about same-sex sexual activities and appropriate language related to some of these practices. Despite role portrayal training, several SPs independently adopted stereotypical behavior and communication styles historically associated with gay men in the United States. For example, although SPs were instructed to dress professionally, they self-selected somewhat flamboyant and flashy outfits they thought appropriate to this role. This behavior was observed by faculty and SP educators both during the initial training as well as during interviews with students.

Lessons Learned and Next Steps:

Bias is inherent in everyone, and providing explicit training to SPs in this area is necessary, especially as curricula begins to include more culturally sensitive topics, such as sexual orientation and gender identity. It is imperative to assess and address SP implicit and unconscious bias during and post-training to avoid any negative impact the formative and summative experiences for our students. SP training should include unconscious bias awareness training to mitigate SP unconscious bias. The Standardized Patient Program will be requiring all Standardized Patients to attend the University of Michigan’s Office of Diversity, Equity and Inclusion’s "Unconscious Bias in Everyday Life" training in 2017.

REFERENCES

Implementation of a Palliative Medicine Curriculum in Emergency Medicine Residency

Neil Khanna, MD and Carrie Harvey, MD
University of Michigan, Department of Emergency Medicine

Background

• Emergency Medicine clinicians frequently encounter patients with terminal events or who are near end of life. 3-5
• Palliative care discussions have the ability to increase quality of care by avoiding undesired interventions, improving symptom management, and directing patients and families towards appropriate resources such as hospice services. 3,6
• When delivering bad news, good communication skills can lead to improved patient-provider relationships and improve patients’ and relatives’ long-term adjustment. 1-3
• Although there is a significant amount of literature with different protocols available for delivering bad news and increased discussion regarding the interplay between Emergency Medicine and Palliative Medicine, the Emergency Medicine Residency does not have a Palliative Medicine curriculum in place.
• This project aims to address that deficit by teaching strategies for addressing Goals of Care and communication skills for difficult conversations.

Methods

<table>
<thead>
<tr>
<th>PGY-1’s at the end of intern year</th>
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<td>Baseline survey assessing comfort with and current understanding of palliative medicine concepts</td>
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</tr>
<tr>
<td>Standardized Patient difficult conversation simulation evaluation</td>
<td>Delivering bad news lecture</td>
</tr>
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<td>Delivering bad news lecture</td>
<td>Standardized Patient difficult conversation simulation evaluation</td>
</tr>
<tr>
<td>Follow-up survey assessing comfort and confidence with palliative medicine concepts and curriculum effectiveness</td>
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</tr>
</tbody>
</table>

Results

• The curriculum includes didactic lectures from Palliative Medicine literature and simulation of difficult conversations with standardized patients.
• Lectures will focus on the GRIEV_ING and SPIKES protocols.
• Currently in the process of implementing this curriculum.
• Using our data, we hope to modify our curriculum to better suit our resident’s needs and assist them in attaining clinical competency in these Palliative Medicine concepts.

References

Surgery Olympics – An Opportunity for Medical Students to Learn Surgical Techniques and Gain Research Experience

Jessa Miller, BS¹, Owen Brown, BS¹, Neal Al-Attar, BS¹, Gabrielle Shaughness, BS¹, Rishindra Reddy, MD², Michael Englesbe, MD²
University of Michigan Medical School¹, University of Michigan Department of Surgery²

Background

- SCRUBS is the University of Michigan Medical School’s surgery interest group
- SCRUBS events:
  - Monthly faculty-student dinners
  - Surgeon lunch talks
  - SIM center workshops
  - Surgery Olympics

Methods

- Research experience and satisfactory surgical skills are two important criteria for medical students applying to surgical residency programs
- Surgery Olympics was created to address these needs
- Designed for medical students to participate in during the 10-week summer break after M1 year
- Students were arranged into teams of 4-5 and paired with one faculty mentor to collaborate on a research project
- All students in the program were required to attend a bimonthly SIM center session taught by surgical residents
- At the end of the summer, teams were evaluated on surgical skills (knot-tying, complex suturing, and laparoscopic skills)
- Teams were required to present their research at the Department of Surgery Grand Rounds in the fall
- The team with the highest rankings in both of these categories was deemed winner of the Surgery Olympics
  - Surgical skills competition
  - Grand Rounds research presentation
- A survey was sent out to the 70 students who participated in the Surgery Olympics to evaluate the program’s effectiveness

Results

- The survey had a 30% survey response rate (n=21)
- Of the 21 respondents, 71.43% said their team published or were in the process of publishing an abstract and/or manuscript
- The mean rating of surgical skills at the start of the program was 1.29, while the mean rating after completing the program was 2.62
  - 1=poor, 3=average, 5=advanced
- Of the 21 respondents, 66.7% (n=14) rated their experience as average, good, or great

Future Applications and Next Steps

- Increasing the number of faculty mentors in the program will allow for:
  - Smaller research teams
  - Greater individualized mentorship
  - More student involvement
- We hope to get M4 students involved in the program to serve as a peer mentor for M1 students
- We plan to send out a survey to faculty mentors to evaluate if they found the program beneficial

Conclusions

- Overall the Surgery Olympics program was beneficial for the majority of students
- Many teams have since published and presented their research
- Students’ surgical skills improved upon completion of the program

Acknowledgements

- Thank you to the University of Michigan Department of Surgery for supporting the SCRUBS program
A Needs Assessment of the Geriatric Medicine Rotation for Internal Medicine Residents

Jessica Voit, MD1, Meredith Gilliam, MD MPH1,2, Fareeha Khan, MD1,2, Erika Manu, MD1,2
Department of Internal Medicine1, Division of Geriatrics and Palliative Medicine2
University of Michigan, Ann Arbor, MI

Background

- 2014: ~46.2 million adults 65+ years old in the USA - 14.5% of the population - numbers are expected to grow
- Geriatric Conditions: - frailty - fall risk - dementia - elder abuse and neglect
- Not enough geriatricians to provide primary care or screen for geriatric conditions → rely on internists and subspecialists
- ACGME requires an assignment in geriatric medicine for all internal medicine (IM) residents
- Current IM House Officer Geriatrics Rotation:  - PGY2 and PGY3 residents  - Receive a welcome email and schedule a few days before the start of the rotation  - Entirely in Turner Geriatric Clinics (primary care and specialty)  - Minimal orientation or didactics

UM Geriatric Rotation

- Physician-based care (81%)
- House officer (HO) satisfaction with the geriatrics rotation can be improved upon
- HOs find educational benefit in clinics that:
  1. Expose them to interesting and relevant diseases
  2. Provide resident autonomy
  3. Provide high-quality teaching from faculty
- HOs feel sidelined and just there to write notes in some clinics
- Top 3 needs identified by HOs:
  1. Time for didactics
  2. Time set aside to complete notes
  3. Exposure to different clinical settings

Results

Which clinics have the MOST educational value?

Reasons for high educational value of “top” clinics

1. Quality of faculty teaching
2. Types of diseases/conditions seen in clinic
3. Amount of time discussing patients with faculty

Sample comments:
- “Dr. X would have spent a lot of time teaching me about the exam”
- “Dr. Y picked high-yield patients for me”

Reasons for low educational value of “bottom” clinics

1. Not enough house officer autonomy
2. Clinic running behind schedule
3. Not enough time to write notes

Sample comments:
- “I used the time to review the Notes”
- “I didn’t learn much”

Why Do A Needs Assessment?

- Anecdotally, residents’ opinion of the rotation have been mixed
- Geriatric fellowship programs are underfilled - 2014: only 53% of accredited fellowship slots filled
- UM IM residents historically uninterested in career in Geriatrics - from 2005-2017, only 10 (2%) matched in geriatrics
- All residents need strong geriatric training

Methods

- December 2016 – January 2017
- Qualtrics survey distributed via email to 63 UM residents or recent graduates (PGY2, PGY3, PGY4) who had completed geriatric rotation in the past 2 years
- Inquired about:
  - Most and least educational clinic experiences
  - Desire for other geriatric learning experiences
  - Degree to which rotation experiences will change their clinical practice

Results

Career interests:

- General Internal Medicine
- Primary Care
- Hospitalist
- Geriatrics
- Palliative Care
- Non medicine

Future Steps

- Provide one-hour formal orientation
- Provide one-page orientation for house officers
- Focus: rotation expectations and clinic learning objectives
- Include “concept maps” for key geriatric syndromes to facilitate faculty teaching during clinic or self-directed learning
- Restructure one to two half-days of clinic to allow time for formal didactics and tours of other geriatric clinic settings
- Would also allot time for finishing notes on those half-days
- Post-implementation: will assess the impact using the Geriatric Medicine section of the Internal Medicine In-Training Exam
- Compare changes in geriatric scores

VI. References

- Background: ACGME requires assignment in geriatric medicine for all IM residents
- Current IM House Officer Geriatrics Rotation:
  - PGY2 and PGY3 residents
  - Receive a welcome email and schedule a few days before the start of the rotation
  - Entirely in Turner Geriatric Clinics (primary care and specialty)
  - Minimal orientation or didactics
Incorporating Instructional Design Principles into Undergraduate Medical Education Video Podcasts

C. Chapman, MA; J. Westfall, MA; J. Engling, MA; M. Stephens, MAED; A. Yao

RESULTS

48 VIDEO PODCASTS
20 FACULTY PARTNERS
13 PRACTICE QUIZZES
8 SEQUENCE COURSES
1 POWERPOINT TEMPLATE
1 YOUTUBE VIDEO

LESSONS LEARNED

Through a combination of faculty development, individual coaching, and the use of structured templates, faculty can easily apply a subset of ID principles to improve their video presentations.

FUTURE STEPS

Education Design to work with faculty and staff to add the Four-Component Instruction Design (4C/ID) model to the overall process and to ensure continuous quality improvements.

DESIGN REFERENCES

Mayer’s (2011) Multimedia Learning
Learn more here: openmi.ch/MayerML

Roediger & Butler’s (2011) Retrieval Practice
Learn more here: openmi.ch/RetPract

NEW CURRICULUM

As part of the new Medical School curriculum, faculty were asked to create and produce video podcasts to support small-group learning.

Faculty partnered with Education Design for recording and instructional design (ID) assistance. Faculty were provided with a brief training and overview of ID design principles, retrieval practice, and the recording process in the Education Design podcast studio. Faculty then created narrated PowerPoint presentations to support small-group sessions.

EDUCATION AND TRAINING

Education Design provides overall leadership in curriculum analysis, design, development, and standards related specifically to Undergraduate Medical Education, Graduate Medical Education, Graduate and Postdoctoral Studies, and Continuing Professional Development.
Medical Students Make the Great Escape: An Innovative Avenue for Experiential Leadership Learning and Team Building

Christine Wu, M4; Heather Wagenschutz, Leadership; Justine Hein, M-Home
University of Michigan Medical School

**PUZZLE PIECES (BACKGROUND)**
- Need for effective physician leadership and team management is increasing, especially in a tangled and complicated American health care system
- Emerging push for leadership learning and team-based experiences in undergraduate medical education (UME)
- **Question:** Can leadership skills be developed while also focusing on building group connections in order to create physician leaders?
- **Idea:** “Escape Rooms” offer an engaging, experiential, peer-to-peer learning experience. Participants work together to uncover and solve clues within a time limit to escape from a room.
- **Objective:** Assess the outcome of an experiential, peer-based opportunity in leadership learning and teamwork development.

**RULES OF THE GAME (METHODS)**
- UME students across all 4 classes (M1-M4) were invited to participate
- 4 groups with up to 8 students each participated in 1 of 2 Escape Room scenarios
- Escape Room Rules: Uncover and solve a series of puzzles within 60 minutes
- Complete a written evaluation regarding the experience and engagement in post-game debriefing session
- Evaluate the use and/or presence of 5 Leadership Competencies* and if the experience + or - (or neutral) affected group connectivity

*5 Leadership Competencies: Leading Self, Communication & Influence, Problem Solving, Teamwork, Systems Thinking

**CLUES DISCOVERED (RESULTS)**

**Post-Escape Room Evaluation:**

<table>
<thead>
<tr>
<th>Overall rating of the Escape Room experience (4.92/5.0)</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent (5)</td>
<td>24</td>
<td>92.3</td>
</tr>
<tr>
<td>Great (4)</td>
<td>2</td>
<td>7.7</td>
</tr>
<tr>
<td>Good (3)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Okay (2)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Poor (1)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Would you recommend the Escape Room to medical student peers as a team learning activity?

<table>
<thead>
<tr>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>26</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
</tr>
</tbody>
</table>

Is this experiential learning activity applicable to becoming a doctor?

<table>
<thead>
<tr>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>24</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
</tr>
</tbody>
</table>

Which Leadership Competencies were used during the Escape Room experience:

| Leading Self                  | 25 | 96.2 |
| Communication & Influence     | 25 | 96.2 |
| Problem Solving               | 26 | 100  |
| Teamwork                      | 24 | 92.3 |
| Systems Thinking              | 13 | 50   |
| All 5 Competencies            | 13 | 50   |

Did this experience help, hurt, or have no effect on the group connection?

<table>
<thead>
<tr>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help</td>
<td>23</td>
</tr>
<tr>
<td>Hurt</td>
<td>0</td>
</tr>
<tr>
<td>No effect</td>
<td>0</td>
</tr>
<tr>
<td>N/A</td>
<td>3</td>
</tr>
</tbody>
</table>

**Specific Student Comments:**

I didn’t know these people before, and I definitely feel more connected to them now.

“Learning when to lead and when to follow is crucial in a medical team.”

“You have to be able to work in a multi-disciplinary setting in order to be a successful physician.”

“Everyone has their own unique talent/leadership skills and can contribute to the team to make us all better.”

**SOLUTIONS UNCOVERED (LESSONS LEARNED)**

- Peer-based learning opportunity for vertical integration across all classes in a dynamic and engaging environment
- Fun and meaningful approach to apply leadership skills alongside collective problem-solving in a high-pressure situation
- Common themes expressed: open communication, delegating and sharing responsibilities, shifting leadership and team fluidity, and the necessity of sharing individuals’ strengths for the team’s success
- Promoted the implementation and translation of an experience to their medical careers
- Students chose to participate (vs. required), which may have led to a cohort more invested in leadership and teamwork development
- All 4 teams successfully completed the challenge, which may have positively impacted the outcomes

**FUTURE ESCAPES (NEXT STEPS)**

- Provide a similar opportunity with twice the number of students with equal class distribution.
- Post-evaluation survey and discussion will be performed in order to analyze lessons learned, leadership competencies utilized, effect on group connectivity, and applicability to medicine.

**REFERENCES**

Background:

- Journey of medical school is challenging
- Students commonly note that there are a limited number of mentors available
- Medical students launched eMpower at University of Michigan Medical School (UMMS) in Fall 2016
- Overarching goal: Unite medical students from all classes in a small group setting to support one another in finding personal and professional success

Methods:

- Out of a total of 691 UMMS students, 272 students chose to participate in eMpower
- Students were divided into 19 small groups
- In each small group, two to four students were selected to be facilitators
- Five scheduled eMpower sessions took place throughout the year with topics including:
  - Program kickoff
  - Achieving academic success
  - Discovering one’s path through extracurriculars and research
  - Practicing wellness
  - Thriving in the clinical environment
- Provided student-designed template outlining session objectives, suggested activities, and discussion points to group facilitators
- Post-program evaluation with Likert scale and open response style questions administered to all participants via Qualtrics

Results:

Of the 104 total students who completed the survey:

- 88% of students felt that being part of eMpower was a valuable experience
- 91% would recommend the program to other medical students
- 81% have formed stronger connections with students in other class years
- 93% thought the small group format was effective

Of the 64 underclassmen who completed the survey:

- 75% now feel better prepared to achieve their goals in medical school

Of the 38 group facilitators who completed the survey:

- 89% gained teaching and facilitation skills through their involvement in the program

Participant Quotes:

What did you find most valuable about being in eMpower?

- "Having upperclassmen to bring up my concerns to was so helpful. Their advice practically saved me and totally changed my mental framework. This has been the best resource to me thus far in med school."
- "The opportunity to reflect on my medical school experience and what has been positive, helpful, challenging, etc."
- "Learning important things about what to expect while in medical school that are not readily available through other avenues."
- "As an M1, eMpower was incredibly valuable for helping me develop friendships and mentorship with M2, M3 and M4 students."

Next Steps:

- Anecdotally has already started to create a greater sense of community at UMMS
- Equipped students with relationships, tools, and strategies to help them thrive in medical school and beyond
- Program is sustainable as underclassmen return as mentors
- Students refined their teaching skills and ability to provide feedback in preparation for residency
- We envision:
  - Expansion of meetings to outside of the traditionally structured meeting times
  - Dissemination of similar programs throughout the country that will foster communities of successful students
  - Further evaluation specifically focused on the benefits in wellness that eMpower offers

Acknowledgements:

This project would not have been possible without the guidance of Justine Hein and Dr. Eric Skye within the UMMS learning community, M-Home. Thank you both for your contributions and encouragement throughout this process.

References:

ABSTRACT

In 2014, the Black Lives Matter movement sparked protests and national dialogue about racism and violence against communities of color. With this momentum, the University of Michigan Medical School (UMMS) School of Medicine (SOM) began to address issues of unconscious bias, microaggressions, and systemic racism in the medical field. UMMS partnered with the Office of Health Equity, Diversity, and Inclusion (OHEI) to deliver mandatory identity training to the UMMS class of 2020 during orientation. The Office of Health Equity, Diversity, and Inclusion (OHEI) also bolstered this work by hosting Dr. Mona Hanna-Attisha, the Hurley Medical Center pediatrician who uncovered elevated lead levels in Flint children following the water crisis. WC4BL advocated for university-sponsored identity training and OHEI partnered with admissions to deliver identity training to top candidates. In 2015, the UM Program on Intergroup Relations, as well as a collaboration with the UMMS Black Student Association (BSA) tripled its non-black membership. Follow-up events included a workshop on how that affects healthcare. WC4BL also raised awareness, garnered support and was able to model how medical schools can enact their civic responsibility to promote change.

RESULTS

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- **Methods:** UMMS’s executive board held a planning meeting to create a WC4BL-inspired event that addressed the issue of unconscious bias at University of Michigan Medical School (UMMS). We published the event to the community at large through email and co-locatedanonymous discussion questions through a google document. We promoted at all those who wanted to attend and were able to accommodate, but we also used our social media and email lists to promote the event. The event was held on Wednesday, November 18th.

- **Results:** The event was well attended by UMMS faculty, staff, and students with seventy attendees. Following the event, the UMMS BMA’s executive board held a planning meeting to create a national medical student organization devoted to embodying the responsibility of the institution of medicine to counteract systemic and interpersonal racism and its effects on the practice of medicine. We believe that the impact would be felt by our community's ability to address and the subsequent resignation of the university’s insensitive treatment of students across racial/ethnic lines and the need for a program that is relevant to all students for students of color. WC4BL called for medical schools to show solidarity with their students of color, and to do so in an honest and upfront manner. We chose the date of November 18th because it is the day when Dr. King was assassinated in 1968. We started the meeting by displaying online videos of the specific racially motivated events that took place in recent years. We then proceeded to the conclusion of the event that demonstrates how bias affects healthcare outcomes, economic opportunities, and the morbidity of certain minority groups. Members within UMMS proposed personal accounts of how their lives have been detrimentally affected by unconscious bias in the healthcare setting. The session then concluded with discussion prompted by questions derived from the google document and a message of encouraging physicians. Lastly, the attendees took a solidarity picture that was displayed on multiple media platforms.

- **Conclusions:** Our event was received positively by our attendees. Following the event, the UMMS BMA’s executive board held a planning meeting to create a national medical student organization devoted to embodying the responsibility of the institution of medicine to counteract systemic and interpersonal racism and its effects on the practice of medicine. We believe that the impact would be felt by our community's ability to address and the subsequent resignation of the university’s insensitive treatment of students across racial/ethnic lines and the need for a program that is relevant to all students for students of color. WC4BL called for medical schools to show solidarity with their students of color, and to do so in an honest and upfront manner. We chose the date of November 18th because it is the day when Dr. King was assassinated in 1968. We started the meeting by displaying online videos of the specific racially motivated events that took place in recent years. We then proceeded to the conclusion of the event that demonstrates how bias affects healthcare outcomes, economic opportunities, and the morbidity of certain minority groups. Members within UMMS proposed personal accounts of how their lives have been detrimentally affected by unconscious bias in the healthcare setting. The session then concluded with discussion prompted by questions derived from the google document and a message of encouraging physicians. Lastly, the attendees took a solidarity picture that was displayed on multiple media platforms.UMMS’s executive board held a planning meeting to create a WC4BL-inspired event that addressed the issue of unconscious bias at University of Michigan Medical School (UMMS). We published the event to the community at large through email and co-locatedanonymous discussion questions through a google document. We promoted at all those who wanted to attend and were able to accommodate, but we also used our social media and email lists to promote the event. The event was held on Wednesday, November 18th.

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**SafeMD**
Medical Students Developing a Sexual Assault Awareness and Education Curriculum Targeted To Medical Professionals

Petrina LaFaire1*, Jonathon McBride2*, Seth Klapman3* and Kathryn S. Brown4*

1University of Michigan Medical School, Ann Arbor, MI

*The authors contributed an equal amount of work

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### INTRODUCTION
- Sexual assault affects thousands of people every year, particularly on university campuses, and leaves an impact on both the individual and community level. In addition to the personal impact, medical professionals stand in a unique position as sexual assault affects their patients as well.
- As medical students at the University of Michigan, we were disappointed to find that sexual assault was only minimally addressed at our institution, both within the curriculum or extracurricularly, and specific sexual assault resources were not made clear to students.
- In Fall 2015, UM medical students founded SafeMD (Survivors, Advocates, Friends, Educators) to promote an environment in which sexual assault is illuminated, understood, not tolerated and actively combated; in which survivors of sexual assault have access to and are aware of supportive resources; and in which future medical professionals become proficient at handling patients involved in sexual assault with nuance, skill, and care.

### 2016 UMMS NEEDS ASSESSMENT
SafeMD conducted an informal needs assessment to incorporate students’ input into what needed to be addressed by both SafeMD and the medical school administration. This needs assessment was sent to attendees at SafeMD’s first meeting of the year, in order to understand where SafeMD’s efforts could be most high yield. This data was used to guide program planning and provide feedback to the administration.

---

### EDUCATION: ALLYHOOD TRAINING
**Goal:** Educate the Medical School Community Through a Peer-Led Sexual Assault Basic Training.

**Achieved:** In collaboration with the UM Central Campus Sexual Assault Prevention and Awareness Center, medical students designed and implemented a training, which included integrated, multi-day sessions exploring the themes: Bystander intervention & Community Engagement, Sexual Assault Law & Legal Processes and Responding as a Medical Professional. Speakers included representatives from the UM School of Law, UM Department of Obstetrics and Gynecology, and the UM Sexual Assault Nurse Examiner program.

**Impact:** Seventy-five medical students attended two-out-of-three sessions, and received SafeMD lapel pins for their white coat.

---

### OPTIONAL ALLYHOOD TRAINING

- **2017 Allyhood Training session in progress.**

---

### SAFE SPACE: M1 ORIENTATION
**Goal:** Introduce Incoming M1 Medical Students to Campus Sexual Assault Mandatory and Nonmandatory Reporting Resources.

**Achieved:** A dedicated session, designed and presented by medical students, was built into the M1 Orientation ("Launch") to give incoming students an introduction to Sexual Assault and ensure all students know what resources (confidential and mandatory reporters) are available to them. Topics covered during the 25-minute session include defining sexual assault, bystander intervention, consent, and resources.

**Impact:** 172 incoming M1 medical students attended the session and received Resource Cards (see below).

---

### M1 ORIENTATION / LAUNCH OVERVIEW

**Resource Wallet Card**

**Presentation – Sample Slides**

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### OUTREACH

#### SAFE MICHIGAN
**Goal:** Work with other graduate schools on the UM campus to support development of sexual assault awareness programs within each school.

**Achieved:** Organized an inter-professional mixer to share SafeMD’s successful model and assess other graduate efforts to address sexual assault.

**Impact:** Established a means for SafeMichigan communication (event sharing, networking etc.) and aided in foundation of SafeSPH.

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#### SAFE WORLD
**Goal:** Connect with medical schools across the country to share programming and ideas regarding sexual assault awareness.

**Impact:**
- Connected with medical students from other institutions at national conferences.
- Developed a shared resources portal to consolidate potential curricular activities.

---

### CONCLUSIONS

- SafeMD began to address the lack of Sexual Assault training at UMMS.
- In its inaugural year, SafeMD found strong support in the medical student body, secured funding from the Medical School and Hospital departments, partnered with UM campus organizations, and held multiple events.
- SafeMD provides an excellent model for other medical students and institutions to initiate similar programs dedicated to educating future professionals on sexual assault in order to better serve their patients and communities.

---

### ACKNOWLEDGMENTS

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Top 3 priorities identified:
1. Provide further education on how to take a sexual assault history
2. Have students undergo SAPAC intensive training
3. Learn how to conduct an aware and appropriate physical exam for sexual assault survivors

---
 WHEN THE RIGHT TO KNOW IS THE RIGHT TO UNDERSTAND: PEER-BASED HEALTH AND SAFETY TRAINING

Judy Daltuva, MSW
Mary-Catherine A. Goddard, MPH Candidate 2017
University of Michigan School of Public Health

Background

- Grant assistance provided by the National Institute of Environmental Health Sciences has allowed the United Auto Workers International Health and Safety Department (UAW) to provide trainings to UAW members and other communities such as:
  - Those disadvantaged by environmental justice
  - With limited English proficiency and/or lack of educational opportunity
- UAW has worked with worker trainers (peer trainers) to deliver health and safety trainings
- Trainings have helped protect places of employment and communities from exposure to hazardous materials

Methods and Intervention

- University of Michigan staff worked with UAW and community groups on:
  - A needs assessment survey to determine the necessary training and how best to deliver it
  - Gathered information on major occupations and hazards
  - Train the trainer program was held to train peer trainers and those trainers delivered training in their communities
- Peer training teaching strategies:
  - Introducing health and safety words and concepts in ESL classes
  - Presenting long classes in short segments
  - Holding classes on weekends

Results

- UAW partnered with agencies who work with Spanish-speaking populations to train peer trainers
- Peer trainers then deliver health and safety training to underserved workers in high-risk low-paying jobs on how to limit exposure to workplace hazards
- These vulnerable workers in Southwest Detroit, Pontiac and Macomb county work in the following fields:
  - Landscaping, agriculture, construction, hotel and restaurant services, commercial and residential

Benefit of Peer Training

- Peer training increases the likelihood that trainers/evaluators have shared values and specific knowledge of hazardous conditions faced by workers
- Utilizing peer trainers in established community organizations makes health and safety training more accessible
- UAW is collaborating with community partner organizations to:
  - deliver bi-lingual (English/Spanish) health and safety trainings to community members recruited by partner organizations
  - Transfer health and safety training skills to staff members at partner organizations through train-the-trainer programs

Lessons Learned and Next Steps

- Trainings by peer trainers were difficult to perform for the following reasons:
  - Trainees worked fluctuating and seasonal hours, difficulty accommodating work schedules
  - Some trainees had limited English proficiency
  - Many did not have access to information about workers’ rights or worker health and safety
  - Recent immigration changes and barriers in trust
- Future train the trainer programs will be used to expand the reach of the current training group

Acknowledgements

Funding was provided by the National Institute of Environmental Health Sciences under Grant Number 2U45ES006180-24 and grant # SH-27639-15-60-F-26 from the Occupational Safety and Health Administration, U.S. Department of Labor. Thanks to the United Auto Workers, United Hispanic Workers of Detroit, Detroit Hispanic Development Corporation, Macomb County Immigrant Service Center, and Catholic Charities of Southeast Michigan Hispanic Outreach Services for their participation.
**UMMS Communication Collaborative Elective: A Forum for Student Presentations and Peer-to-Peer teaching**

Ilan Fischer¹, Alisha Lussiez¹, Erin McKean, M.D.²

¹U of M Medical School, Ann Arbor, MI ²Department of Otolaryngology, University of Michigan

---

**INTRODUCTION**

The Communication Collaborative is a student-run course developed at the University of Michigan Medical School that promotes clear communication by providing forums for students to practice public speaking. Proficiency in communication, presentation, and didactic instruction are critical for all physicians, especially those in academic medicine, and this initiative provides a unique opportunity for students to develop these skills.¹ The Collaborative model is easily generalizable to other medical schools, where it could benefit students with minimal financial or administrative burden.

---

**TALK DEVELOPMENT**

<table>
<thead>
<tr>
<th>NOMINATION</th>
<th>Medical Students may nominate their peers for consideration (nomination applies only to Grand Rounds talks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPOSAL SUBMISSION</td>
<td>Nominated students (in the case of Grand Rounds) or interested students (for Research Rounds) are invited to submit a proposal to the Communication Collaborative.</td>
</tr>
<tr>
<td>EVALUATION &amp; SELECTION</td>
<td>Proposals are evaluated in a anonymous, quantified, peer-review process. Selected speakers are notified.</td>
</tr>
<tr>
<td>BRAINSTORM &amp; PLANNING</td>
<td>Selected speakers, a designated pair of M4 co-chairs, and Collaborative volunteers brainstorm each talk and create a schedule for subsequent revision.</td>
</tr>
<tr>
<td>PRACTICE TALKS</td>
<td>Speakers deliver at least two practice talks in front of designated co-chairs, previous collaborative speakers, and volunteers who give specific, constructive feedback.</td>
</tr>
<tr>
<td>DELIVERY</td>
<td>Speakers deliver their talk in a formal setting. M4 chairs secure sponsorship for lunch, disseminate advertisements, reserve room space and arrange for the talk to be recorded.</td>
</tr>
</tbody>
</table>

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**CURRICULUM**

This initiative is led by fourth year medical students and includes both an initial intensive segment as well as a year-long longitudinal component. The intensive teaches students the skills required for giving and critiquing two different types of presentations: a short, research-focused presentation, and longer, narrative presentations. Skills taught in the initial didactics portion of the course include the principles of public speaking, effective non-verbal communication, proposal evaluation, management, and how to deliver critical feedback to colleagues. Students apply for the course as they finish their third year rotations. In this pilot year, seven four year medical students were selected as chairs; one of these seven was be selected to be student director. After the completion of the intensive, the student director and coordinators work longitudinally to host forums for public speaking opportunities and as well as to coach students through the development and delivery of their presentations.

---

**REFERENCES**

Since this elective is in its pilot year, we have not yet collected sufficient data for analysis. Success of the class will depend in part on the motivations and abilities of the Student Leaders and Director. Nevertheless, the Collaborative model is a promising one for students at the University of Michigan and other medical schools.

---

**TYPES OF EVENTS**

<table>
<thead>
<tr>
<th>MEDICAL STUDENT GRAND ROUNDS</th>
<th>A monthly series featuring peer-nominated speakers covering topics of their expertise and personal interest. Example topics include:</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESEARCH ROUNDS</td>
<td>Quarterly speaker series that provides students the opportunity to present their research to their peers and faculty. Prepares students to deliver effective talks in the academic setting.</td>
</tr>
<tr>
<td>WORKSHOPS</td>
<td>Periodic training events and one-on-one coaching for interested students to learn and master skills critical for public speaking including:</td>
</tr>
</tbody>
</table>

- How to act on the wards
- Logistics and Aid in Haiti and Sudan
- 3D printing Prosthetics and media coverage of medical advancements
- Medical Apartheid

---

**NEXT STEPS**

Feedback from participating speakers and Student Leaders suggests this class provides an important niche within the academic community for students to improve their communication abilities. Assessment of this program after completion of year one will survey students to assess their attitudes about and competence in public speaking, delivering critical feedback, academic review, and management before and after participation in the Collaborative.

---

**LIMITATIONS AND CHALLENGES**

Since this elective is in its pilot year, we have not yet collected sufficient data for analysis. Success of the class will depend in part on the motivations and abilities of the Student Leaders and Director. Nevertheless, the Collaborative model is a promising one for students at the University of Michigan and other medical schools.

---

**Flint and Haiti: A Tale of Two Rivers, A Tale of Two Crimes**

Vicky Koski-Karell, BA

Tuesday, February 16, 2016
12:00-12:55 PM
West Lecture Hall
Medical Science Building II
Ann Arbor, Michigan

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**Medical Student Grand Rounds**
Comparison of Study Behaviors of Third-Year Medical Students to Resources Recommended by Clerkship Directors

Maria Pliakas, BS, Kylie Steenbergh, BS, Max Griffith, BA, Lauren McIntosh, BS, and Sally Santen, MD

University of Michigan Medical School

Background

- Guides to study resources for core clerkships exist at other medical schools.
- Lack of a comprehensive study guide for clerkships at University of Michigan Medical School (UMMS)
- Reports of generational differences leading to differing perspectives on learning strategies and challenges to succeeding during clinical rotations.

Objectives

- Query third-year UMMS students regarding perceived effectiveness of study resources and behaviors for shelf exams and other summative assessments
- Create clinical resource guide for distribution to current second-year students
- Query clerkship directors to explore in what ways their opinions of study resources and behaviors were similar and different from those of medical students

Methods

- Electronic surveys in Qualtrics distributed to third-year medical students and clerkship directors at UMMS
- Students and clerkship directors/assistant directors asked to rate usefulness of various study resources according to a Likert scale
  - 0 (Not at all useful) to 4 (Extremely useful) or "Did not use"
  - Students only given option to evaluate resources for clerkships already completed
- Option to enter free responses for unlisted resources
- Data analysis completed in Qualtrics

Results*

- Survey responses revealed discrepancies between opinions of students and clerkship directors
  - Students placed greater emphasis on question banks and multi-media resources, both in their numerical ratings and free responses
  - Clerkship directors attributed greater value to reading from textbooks and researching specific conditions affecting patients seen during the clerkship

Conclusions

- Medical students value study approaches that offer immediate feedback and those that incorporate technology
- The discrepancies with resources between clerkship directors and students are consistent with reports of generational differences.

Limitations

- Low completion rate for all clerkship rotations due to early exit of the survey
- Response rates limited by students not having completed all clerkships at time of survey
- Survey design allowed responders to rate a resource while also selecting "did not use." These data were excluded

Acknowledgements

We would like to thank the clerkship directors and assistant directors for their dedication to medical student education. We would also like to thank Jesse Burk-Rafel for his expertise on survey design and the UMMS Class of 2018 for their responses.

References

In many medical schools, preclinical students often stream recorded lecture videos instead of physically attending lecture. If these "streamers" have a question regarding a topic or lecture, they must ask it via email rather than directly. Questions over email, however, are a poor substitute for in-person questions. Email is private and decentralized; students do not know which questions have already been asked of the professor, and the answers they receive stay private unless students specifically make an effort to share answers with friends or broadcast them to the class, leaving some students uninformed. Email also removes the social discussion aspect of in-person questioning, as fellow students lose out on the opportunity to collaborate towards finding the solution.

Piazza™ is an online platform which provides a much more natural question-and-answer experience. It provides a central, searchable repository for questions and allows students to answer each other’s questions collaboratively. Faculty can make their own responses or simply endorse students’ correct answers. Questions can also be posted anonymously, reducing the intimidation factor when working with professors. The Platform has found extensive use in undergraduate courses, but has not yet been applied to medical student education. Here, we discuss the results of a two-week pilot of Piazza during the first-year (M1) Endocrine System course at the University of Michigan Medical School.

The two faculty directors of the course were provided University-sponsored educational materials regarding Piazza and used a sandbox environment to familiarize themselves with the features. Students were given a fifteen-minute orientation to Piazza describing its functions and how to enroll; they could still use email to communicate with the directors if preferred. The course directors answered questions on Piazza, trying to only address questions when a student had attempted an answer first. If a question remained unanswered, they would answer directly. After course completion, usage statistics were collected and students were surveyed.

Students perceive Piazza to be beneficial for learning, notably due to clarification of areas of uncertainty, but also due to the opportunity to assess their own knowledge by answering other people’s questions. Student participation was high for a system that is designed to be used on an as-needed basis. The number of questions answered first by students was particularly encouraging, as it demonstrated a level of student engagement that email cannot support under any circumstances. Additionally, the crowdsourced answering allowed for a faster response time than could be provided by the directors alone. Finally, the number of anonymous questions was higher than expected, indicating that student-professor interaction anxiety may depress question asking under an email-only system.

To further assess how Piazza can increase student engagement and enhance learning, students will be surveyed regarding their experience with the pilot. To deploy Piazza across all sequences, all course directors must be familiarized with the platform and consent to its usage, a significant obstacle. Going forward, we hope to compare overall levels of student engagement and satisfaction with the curriculum between incoming M1s (who would have used Piazza from the beginning) and the current M1s (who would not have used Piazza in some sequences).
Perceptions of debriefing after adverse patient events: a cross-sectional survey of Pediatric residents

M Govindan MD1, N Malas MD MPH1,2
1Department of Pediatrics and Communicable Diseases, University of Michigan, Ann Arbor, MI.
2Department of Psychiatry, University of Michigan, Ann Arbor, MI.

Background

- Residents commonly experience adverse patient events as part of their training.
- These events can engender strong emotions in physicians, and can negatively affect physician well-being and the care they provide.
- Benefits of debriefing after adverse experiences include positive impacts on teamwork, end of life care and physician stress.1,2
- Junior physicians have reported the greatest need for emotional support after difficult experiences,3 yet there is no existing model to educate pediatric resident on debriefing after adverse events.

Methods

- Cross-sectional quality assurance study and needs assessment.
- Pediatric and Medicine-Pediatric residents participated in an online Qualtrics survey and focus groups.
- Audio recordings were obtained during focus groups to allow for accurate capturing of elicited themes.
- Project deemed exempt by the University of Michigan IRB and formal consent was obtained for recordings.

Results

Table 1: Number of Distressing Events Experienced by Level of Training (N=48)

<table>
<thead>
<tr>
<th>Level of training</th>
<th># of distressing patient care events in past 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO-1</td>
<td>0-9</td>
</tr>
<tr>
<td>HO-2</td>
<td>0-9</td>
</tr>
<tr>
<td>HO-3</td>
<td>0-9</td>
</tr>
<tr>
<td>HO-4</td>
<td>0-9</td>
</tr>
<tr>
<td>Total</td>
<td>0-9</td>
</tr>
</tbody>
</table>

Figure 1: Importance of Debriefing (N=45)

Figure 2: Importance of Having Skills to Debrief (N=45)

Figure 3: Confidence in Leading Debrief (N=45)

Figure 4: Interest in Debriefing Training (N=45)

Conclusions

- The majority of Pediatric residents believe it is important to debrief after adverse events, yet debriefing takes place infrequently.
- Only half of residents feel confident to lead a debrief, and few have received formal training.
- The majority of residents are interested in receiving training on debriefing.

Next Steps

- Pilot workshop in April 2017 to teach 2nd year Pediatric and Medicine-Pediatric residents the components and skills to lead debriefing sessions after adverse events.
- We are building an online repository of educational materials to strengthen longitudinal learning and practice.

For More Information

- Please contact Morgen Govindan at morgenlf@med.umich.edu.

References

Doctors of Tomorrow: Enabling High School Students to Ignite Change Within Their Community

Jessa Miller, BS¹, Andrea Matthew, BS¹, Jonathan Silverberg, BS¹, Kylie Steenenbergh, BS¹, Carol Noronha BS¹, William Sturdavant, BA¹, Lauren Phillips, BS¹, Emily Flagler, BS¹, Paula Ross, PhD¹, Gurjit Sandhu, PhD², Jonathan Finks, MD²

University of Michigan Medical School¹, University of Michigan Department of Surgery²

Mission Statement
Doctors of Tomorrow (DoT) was founded in 2012 to increase diversity among medical students and physicians by inspiring and enabling under-represented youth to pursue careers in medicine.

Background
- Partnership between the University of Michigan Medical School (UMMS) and Cass Technical High School (CTHS) in Detroit, MI
- 9th grade students paired with first-year medical student mentors
- Hands-on clinical experience:
  - Physician shadowing
  - Anatomy lab
  - Simulation center

Objectives
- Community Health Capstone Projects were introduced to the program in Fall 2015
- Through the capstone projects, 9th grade students:
  - Develop crucial skills for pursuing careers in medicine
  - Gain a better understanding of healthcare disparities
  - Act as agents of change within their community

Methods
- 5 capstone group topics:
  - Nutrition
  - Inequity in Healthcare
  - Hunger
  - Obesity
  - Youth Violence
- Each capstone group consisted of:
  - 1-2 medical student capstone leaders
  - 7 medical student mentors
  - 7 high school students
- Capstone groups collaborated with community organizations:
  - Artesian Farms
  - Neighborhood Service Organization
  - Detroit Food Academy
  - American Indian Health and Family Services
- Project Implementation:
  - With the help of mentors, 9th grade students researched their community health topic
  - Collectively, groups brainstormed viable interventions
  - Developed an action plan that addressed the assigned topic
  - Contacted and visited community partner organizations
  - Executed student-designed projects at CTHS
  - Designed posters to present at an end-of-year research symposium

Outcomes
- In Spring 2016, the capstone groups successfully carried out interventions within the CTHS community
- Projects included:
  - Construction of a vertical garden
  - School-wide assembly on obesity prevention and healthy lifestyles
  - Organization of a food drive
  - Health fair which addressed nutrition, physical health and mental health
- End-of-year research symposium highlights:
  - Student synthesis of capstone projects into posters
  - Delivery of oral presentations
  - Keynote speaker: Dr. Abdul El-Sayed, Health Officer for the City of Detroit

Conclusions
- Students learned critical thinking skills and executed viable solutions to healthcare disparities affecting their community
- Students gained a better understanding of the healthcare challenges that impact urban cities

Acknowledgements
- CTHS Administration
- Community organizations: Artesian Farms, Neighborhood Service Organization, Detroit Food Academy, American Indian Health and Family Services
- Funding support: Jeffrey Cappo and the Victory Automotive Group
- Funding support: UAW

Vertical Garden
SIM center
Nutrition Capstone Group
Research Symposium
Health Fair

Keynote speaker: Dr. Abdul El-Sayed, Health Officer for the City of Detroit
A Pipeline Program for Healthcare Leadership
U-M Summer Enrichment Program (UMSEP)
University of Michigan School of Public Health | Ann Arbor, Michigan

“From Pipeline Program to Recruitment (and Retention) Services”

### Background

- Since its first summer cohort in 1986, the University of Michigan Summer Enrichment Program (UMSEP) has served as the premier health professions pipeline program designed to attract and educate future leaders who are committed to eliminating racial, ethnic, and socioeconomic health inequalities.
- Every summer 18-25 undergraduate students are placed in eight-week paid internships at hospitals and public health programs in the Southeast Michigan and Metro Detroit area for experiential learning. Each student is supervised by a preceptor who has leadership responsibilities in the organization.
- Throughout the program, UMSEP participants attend a series of site visits to a wide range of health-care and public health organizations, as well as attend graduate level lectures and professional development workshops that not only expose them to the field but also increase their interest in public health.

### Aims

- Attract students from all parts of the country and provide them with airfare, housing, rental vehicles for carpooling, and three stipends while exposing them to health management and policy.
- Provide, free of charge, a graduate record examination (also known as GRE) preparation course to bolster participants’ graduate school applications as well as increase retention and recruitment rates to first UM and secondly to other Schools of Public Health.

### Methods

- Cohort Model – Surveyed & gauged the perceived likelihood of students receiving a graduate education in public health, before and after their summers at SEP.
- 258 program alumni were surveyed, focusing on 3 main outcomes: 1) How many pursued careers in Health Management & Policy (HMP) & how many at Michigan 2) How many pursued other Public Health disciplines 3) How many pursued other disciplines in general

### Results

*As an academic pipeline, over 90% of the UMSEP program alumni obtained a post-graduate degree. The study also showed that 20 program participants have completed or are currently completing a doctoral degree. These results are a only a few indicators that the UMSEP has built a strong academic pipeline. When it comes to creating a diverse pipeline into the healthcare field, the study found that over 65% of the UMSEP alums are currently in health management and policy positions.*

### Conclusion & Moving Forward

Pipeline programs are an effective way to recruit students, if:
- Use cohort model approach
- Student experiences tied to social issues
- Infrastructure uses faculty and program alumni
- Active student tracking system in place
- Retention services target pipeline program students

Designing and developing scalable recruitment and retention programs aimed at increasing student and professional diversity should be a top priority for:
- Graduate Schools with low rates of minority applicants and student body
- Institutional diversity leadership
- Health Sciences Disciplines

### References


### Acknowledgements

We want to thank and acknowledge the following collaborators:
- Faculty & Staff: Ebbin Dotson, Christopher Clarke
- Research Assistants: Aaron Hopkins, Leslie Cerpa, Erica Guyrn, Lauren Murphy-Moore
The importance of ethics in surgery is universally acknowledged. Despite ACGME support to integrate ethics education into residency training, ethics curricula has yet to be codified—in either content or format.

**Objective**

Characterize resident needs in ethics education to inform development of a department-wide learner-centered ethics curriculum.

**Needs Assessment**

- 45/125 (36%) of residents completed the initial needs assessment
- 87% (N=39) stated ethics education was important to training
- 38% (N=17) residents happy with current ethics education

**Methods**

**Needs Assessment:** Anonymous and voluntary online survey of residents on preferred ethics topics and format

**Post-Session Evaluation:** Anonymous survey assessing session strengths and areas for improvement

**STRENGTHS**

- “The small group discussions and the ability to decompress”
- “Thought provoking… prompted us to comfort people when vulnerable”
- “Knowing hospital policy is actually quite helpful”
- “Small groups facilitated excellent discussion”

**AREAS OF IMPROVEMENT**

- “Less didactic time”
- “Case presentation without concrete strategy”
- “Need to include ICU attendings” for end of life discussion

**Background**

The importance of ethics in surgery is universally acknowledged. Despite ACGME support to integrate ethics education into residency training, ethics curricula has yet to be codified—in either content or format.

**Results**

**Development and Implementation of a Surgical Ethics Curriculum for Residents**

M Barrett, MD; L Leininger, MPH; PG Gauger, MD; DT Hughes, MD; CJ Vercler, MD, MA; G Sandhu, PhD; PA Suwanabol MD

1University of Michigan, Department of Surgery, Section of General Surgery; 2University of Michigan, Department of Surgery, Section of Plastic Surgery; 3University of Michigan, Department of Learning and Health Sciences

- Resident survey resulted in creation of a learner-centered curriculum focused on the ethical challenges identified and encountered by surgical residents.
- This curriculum is relevant to 100% of residents and increases knowledge and confidence with application of ethical principles.
- With only 38% of residents satisfied with ethics training prior to session attendance, a 90% positive rating of sessions reflects improvement.
- This feedback suggests curricula founded in case-based discussion utilizing small group structure is most profitable for ethics education.
The Resident Experience of End of Life Discussions in the Outpatient Setting

Matt Ettleson, MD and Kristin Collier, MD

Department of Internal Medicine, Michigan Medicine, University of Michigan, Ann Arbor, MI

Background

- Internal medicine residents often provide end of life (EOL) care for hospitalized, critically ill patients.
- EOL care is a core curriculum for ACGME accreditation, although residents report having less experience in EOL discussions in the primary care setting.¹
- Patients prefer EOL discussions to occur earlier in the disease course with physicians with whom they have developed a relationship over time, which would occur in the clinic setting.²
- The Institute of Medicine (IOM) reported deficiencies in office-based skills in EOL management of the elderly patient population in recent graduates of US training programs.³
- More attention within graduate medical education to outpatient EOL care may lead to improved management of the aging US population.³

Objectives

- To assess the current knowledge, attitudes and behaviors of internal medicine, medicine-pediatric, and family medicine residents in engaging in EOL discussions with patients in the inpatient and outpatient settings.
- To identify knowledge gaps or patterns of behavior that could serve as a platform for a new curriculum for improving EOL discussions in the outpatient setting.

Design

Cross-sectional, online self-report survey

Subjects

Ninety-five out of 197 eligible Internal medicine, medicine-pediatrics, and family medicine resident physicians at a single university center

Table 1: Subject Characteristics

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>40</td>
<td>48%</td>
</tr>
<tr>
<td>Program</td>
<td>Internal medicine</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Family Medicine</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Medicine-Pediatrics</td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Training Year</th>
<th>PGY-I</th>
<th>33</th>
<th>40%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PGY-II</td>
<td>32</td>
<td>39%</td>
</tr>
<tr>
<td></td>
<td>PGY-III</td>
<td>14</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>PGY-IV</td>
<td>4</td>
<td>5%</td>
</tr>
</tbody>
</table>

| Clinic site   | University Hospital | 23 | 28% |
|---------------| VA Hospital | 16 | 19% |
|               | Community Clinic | 43 | 52% |

| Average age (years) | 28 |

Table 2: Rating of confidence level in ability to engage in EOL discussion with patients in different clinical scenarios (N = 95)

<table>
<thead>
<tr>
<th>Survey item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>average</th>
<th>Rating</th>
<th>1 = not confident at all; to 5 = very confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>when the patient is clinically stable</td>
<td>6</td>
<td>14</td>
<td>33</td>
<td>31</td>
<td>11</td>
<td>3.3**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>when the patient is clinically unstable</td>
<td>4</td>
<td>7</td>
<td>29</td>
<td>35</td>
<td>20</td>
<td>3.6**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>when the patient presents in the clinic setting</td>
<td>12</td>
<td>39</td>
<td>26</td>
<td>14</td>
<td>4</td>
<td>2.6**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>when the patient presents in the hospital or ICU setting</td>
<td>2</td>
<td>6</td>
<td>22</td>
<td>39</td>
<td>26</td>
<td>3.9**</td>
<td></td>
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</tr>
</tbody>
</table>

Results

- Residents were significantly more confident in having EOL discussions with patients that are in the hospital and clinically unstable.
- Residents were more comfortable identifying patients appropriate for EOL discussions in the inpatient setting than the outpatient setting.
- 96% of residents agree that it is important to have EOL discussions in the clinic setting with the appropriate patients.
- The majority of residents believe they would have more EOL discussions in clinic with specific training and longer appointment times.

Lessons Learned & Next Steps

- There is a need in the internal medicine residency program to improve confidence and skills in discussing EOL decisions in clinic.
- A flipped classroom model with a follow up workshop would allow residents to practice conversational skills in an educational setting.⁴
- A follow up questionnaire will assess the utility of the video lecture and workshop.

References

Empowering Patient Voices: Publishing Patient Stories

Karen Kost, Publisher
Marissa Taylor, MSI, Publishing Editor

BACKGROUND

Patients educating patients is a powerful tool. Sharing their stories allows present and future patients, medical students, and families to better understand the patients' journeys.

ACTIONS

Documentation and Publishing (DocPub) partners with MPublishing and Michigan Medicine faculty, staff, and students to develop a channel for U-M patients to share their experiences and perspectives through the written word.

RESULTS

<table>
<thead>
<tr>
<th>Patient Stories</th>
<th>Adult Books</th>
<th>Children’s Books</th>
</tr>
</thead>
<tbody>
<tr>
<td>128</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Patients</td>
<td>71 F / 54 M</td>
<td></td>
</tr>
<tr>
<td>Writers</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>from within</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Departments</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>13 Faculty &amp; Staff Positions</td>
<td></td>
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</tr>
</tbody>
</table>

BENEFITS

Patient storytellers have powerfully honest and timeless voices. Their stories offer an engaging way to equip clinical faculty, healthcare professionals, and medical students with a better understanding of their patients’ experiences.

LOOKING FORWARD

As patient stories continue to develop as a genre, DocPub will use innovative technologies to make these stories more accessible to patients, healthcare workers, medical students, and readers.

DocPub services include full editorial production. We facilitate the publication of the finished product via multiple delivery channels, such as print, e-books, and web-based publications.

Need help publishing your book?
HITS-ET-DocPub@med.umich.edu
**BACKGROUND**

- The Michigan Caries Prevention Program (MCPP) is a 3-year grant-funded effort to reduce Early Childhood Caries (ECC).
- MCPP trained physicians how to provide oral health: (i) screening; (ii) fluoride varnish; (iii) patient education; and (iv) referral to a dentist.
- Muskegon Family Care (MFC) is a Federally Qualified Health Center (FQHC) that offers both medical and dental care to patients.
- The University of Michigan School of Dentistry (UMSoD) students complete a Community-Based Dental Education (CBDE) rotation at MFC.

**METHODS**

- 10-month pilot study encompassing 1,323 medical well-child visits for children ages 0-3 years
- **QUALITY IMPROVEMENT** effort to deliver (a) efficient; (b) effective; (c) patient-centered care
- 246 parent/caregiver survey responses about their child’s oral health risk factors
- **INTER-PROFESSIONAL EDUCATION** collaboration between UMSoD/CBDE/FQHC
- 28 medical-to-dental referrals tracked (20 EHR; 8 manually)

**RESULTS**

- **338** RISK ASSESSMENTS Performed
- 26% of 1,323 patients
- **300** FLUORIDE VARNISH Applications
- 23% of 1,323 patients

**SURVEY**

- 43% of 246 patients
- Parents reported NO EXPOSURE TO FLUORIDE
  - (Does not account for water fluoridation)
- **28** REFERRALS from Medical-to-Dental (11 internal)

**INCREASED EFFICIENCY**

- Student created new tool to improve quality making care provision more timely and efficient

**INCREASED EFFECTIVENESS**

- IPE Team created 2 short videos about fluoride varnish** that educated parents on an evidence-based treatment to prevent early childhood caries
  - **203 YouTube views in 2 months**

**PATIENT-CENTERED CARE**

- UMSoD student created educational handout that providers could give patients based on patient needs

**NEXT STEPS**

- Muskegon Family Care improved quality in many ways during this study. However, there are opportunities to improve the referral process from medical-to-dental, ensuring fluid patient care transitions.

**DENTAL STUDENTS** can receive more referrals from medical providers at FQHCs to increase access to care for youth at risk of developing early childhood caries.

* Dental student data includes part of May, covering 10.5 months
The findings show that there was broad general interest in all of the topics covered by this course, with means between 2 (interest) and 3 (very interested) for every topic. Students who generally most interested in issues relating to SHCN and least interested in Gender/LGBT issues. Over the past 20 years, interest in chronic pain has increased which might be a reflection of increasing awareness of this issue in society at large. Meanwhile, interest in learning about the role of gender and about patients from other cultural backgrounds decreased which might indicate that students might consider themselves as knowledgeable about these issues and do not think they need additional instruction. Interest in treating patients from other cultures increased over the past 20 years probably reflecting increases in cultural awareness.

CONCLUSIONS

Dental students are generally very interested in learning about dealing with diverse patient populations. The specific topics that dental students are most interested in change over time, perhaps reflecting broader social changes. Dental education must prepare students to deal with needs of different groups of patients and educate them on topics of current interest.

REFERENCES


ACKNOWLEDGMENTS

We want to thank all the students who participated in the surveys.
Implementing a Developmentally-Focused Clinical Competency Committee for Assessment of Senior Medical Students

Kevin Kuo, Sally Santen, Anita Shelgikar, Carrie Braun, Michael Englesbe, David Hughes, Joel Heidelbaugh, Michelle Daniel, Jocelyn Schiller, Jennifer Stojan, Katherine Klein, Helen Morgan
University of Michigan Medical School

BACKGROUND

- Graduate medical education (GME) utilizes competency-based assessment, with clinical competency committees (CCC) managing learner assessments.
- Assessment practices within undergraduate medical education (UME) are more variable, generally focusing on struggling students versus competency-based developmental assessments.
- This creates a gap in which neither learners nor GME programs have a good understanding of learner competencies as they transition from UME to GME.

METHODS

- We piloted a CCC to oversee assessment of 48 senior medical students.
- CCC members included faculty and staff from the Dean’s office, assessment and evaluation teams, and specialty-specific advisors.
- With the guidance of their advisors, students completed an online competency-based individual development plan (IDP).
- Members of the CCC reviewed each student’s performance data and IDP and provided comments utilizing a standardized online form.
- The CCC met bimonthly to review students, assess development, and provide feedback.

IMPLEMENTATION

- Members of the CCC reviewed each student’s performance data and IDP and provided comments utilizing a standardized online form.
- The CCC met bimonthly to review students, assess development, and provide feedback.

LESSONS LEARNED

- A developmentally-focused CCC for senior medical students is feasible and can bridge the gap between assessments in UME and GME.
- Assessment can promote learner development.
- Students must have ownership of their learning and their competency-based IDP.
- Implementing CCC’s with large number of students is logistically challenging and requires facilitative technology and robust support staff.
- Faculty training in competency-based assessment and formative feedback is helpful.

NEXT STEPS

- Evaluate the efficacy of our developmentally-focused CCC using student outcomes.
- Evaluate the efficacy of the competency-based “educational handoff” between UME and GME.
- Continue to improve the assessment process via iterative development.

REFERENCES

The Lecture Feedback Pilot: A New Role For Students In Medical Education

Ilana Fischer, Lynze Franko, Maureen Fausone and Mary Oakley Strasser
University of Michigan Medical School, Ann Arbor, MI

BACKGROUND
Lectures are the cornerstone of pre-clinical medical education. At the University of Michigan Medical School (UMMS), the 15-20 hours of scheduled lectures each week easily eclipses the time allocated to all other instructional methods. To be effective, these lectures must:
1. Transmit relevant content
2. Follow a clear, easily followed format
3. Meet the audience's baseline knowledge level

However, students often lament that the third point is less than fully realized, leading to decreased clarity in the transmission of critical content. Medical school faculty are highly specialized experts and may overestimate or misperceive the student audience’s background knowledge. This is a frustrating problem for students, professors, and administrators alike.

PILOT INTERVENTION
Given the zeitgeist of curricular reform and the tradition of quality improvement in medicine, we developed a pilot lecture feedback program and tested it with five volunteer faculty. Our goal was to
1. vocalize the learner’s perspective
2. follow a relevant content
3. relevant content
4. organize approaches, and turns of phrase worked best so that lecturers could reach students at their level of knowledge.

OBSERVATIONS
• Lectures that began with a broad contextualization of the lecture topic within the organ system, and how it related to previous lectures (whether or not they were delivered by the different faculty) were easier to comprehend
• Lecturers who included audience participation questions caught gaps in comprehension
• Inconsistent slide labeling (ie- using the same title on multiple slides that each covered different phases of a process OR using different titles on slides that all refer to the exact same process) contributed to student confusion
• Outlines of the lecture organization were found to be very helpful
• Including summary slides after each new concept were very helpful
• Clearly defining acronyms improved student comprehension

RESULTS

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
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• 100% of faculty members responded that they applied the feedback they received to improve that particular lecture and subsequent lectures

Notable quotes:
• “I found the student feedback useful to improve my lecture and slides. Sometimes lecturers are not aware of students’ knowledge gaps.”
• “Rarely do we get the opportunity to have really detailed feedback on our presentations from the primary recipient (the student); so this was really fantastic.”

CONCLUSION
Feedback from a brief survey of five participating faculty members revealed the benefits of this program to improve lectures. Student reviewers also benefitted from the program, honing their communications skills by identifying well-framed content and providing thoughtful, constructive feedback. Given that lectures remain a cornerstone of medical education, we suggest that medical schools incorporate student involvement in their quality improvement processes as valuable contributing stakeholders.

FUTURE STEPS
• Create pedagogically grounded form for feedback
• Recruit interested students from Medical Education Path of Excellence, as well as interested Faculty
• Develop and Monitor metrics for student learning and faculty evaluations

TIMELINE AND PROCESS

Four students, working in teams two teams of two, reviewed between one and three lectures given by each of five faculty members. This allowed us to identify trends by lecturer. Before each lecture was presented we reviewed the lecturer's slides and with faculty to discuss potential pitfalls. After watching the lecture, we provided standardized feedback with an assessment form using Likert scales to evaluate areas including: the extent to which students felt the presentation was contextualized within the organ sequence in which it was presented, and whether the material was explicitly connected to previous foundational knowledge. We also included open-ended response forms to highlight slides that introduced content significantly above student baseline level, indicate when titles or labels could be improved for clarity, and explore what contextualization or comparison could help bring students to understand challenging concepts. Unlike course or teacher evaluation surveys, this feedback was administered within days of the lecture, and gave detailed critique that was often useful to modifying immediately upcoming lectures.

(1) Kaufman David M. Applying educational theory in practice BMJ 2003; 326: 213
Surgeon Educators and Variation in Teaching Assessments: Does Gender Bias Exist?

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**Background**

Teaching evaluations:
- Provide educators with feedback from learners.
- Used by 98% of universities to assess teaching abilities.
- Frequently cited as the most important component of one's promotion package.
- Poor evaluations may prevent academic advancement.

The operative classroom is a unique environment in which surgeons teach learners of all levels while maintaining the utmost care for patients.

**Objective**

Better understand the relationship between learner and teacher focusing on affect of learner level and teacher gender on evaluations.

**Methods**

- Anonymous student and resident teaching evaluations 2011-2014
- Faculty had at least 1 resident and 1 medical student evaluation/ year
- 43 faculty (12 women, 31 men) had sufficient evaluations and were ranked 1-43 for both medical students and residents
- Content analysis for qualitative responses

**Results**

Content analysis revealed students prefer historically female traits whereas residents prefer historically male traits.

Overall, both students (28\(^{th}\) vs. 19\(^{th}\)) and residents (26\(^{th}\) vs. 20\(^{th}\)) ranked women lower than men.

The anonymous nature of the student responses precluded studying the effects of student/resident gender on ranking.

Outlier faculty were defined by a variation in student rank compared to resident rank of at least 33%.

- 8 faculty ranked: ↑ by students, ↓ by residents
- 6 faculty ranked: ↑ by residents, ↓ by students

**Conclusions**

- Students and residents had contrasting opinions of teaching effectiveness for one third of faculty.
- Communal traits were assessed more positively by students whereas residents appreciated agentic traits in teachers.
- Students and residents ranked women lower than men, despite varying opinions on what makes a good surgeon educator.
- Given potential for unconscious bias, caution must be used in promotional decisions based on these evaluations.
Education and Advocacy within Correctional Health

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Background

Education & Advocacy within Correctional Health

During the 2016-2017 academic year, medical students at the University of Michigan Medical School established Education & Advocacy within Correctional Health (EACH). Our mission is to expose medical students and professionals to the unique health needs of incarcerated and justice-involved individuals. Through partnerships with the Michigan Department of Corrections and Corizon Health, Inc., we have established student shadowing and facility tour programs to meet this aim.

Methods

Shadowing, Tours, and Feedback Surveys

- Between October and December 2016, nine first- and second-year medical students shadowed a Corizon Health physician at the G. Robert Cotton Facility in Jackson, Michigan (MI). These one-on-one shifts lasted approximately three hours.
- In January 2017, a group of 11 medical students and one graduate student participated in a tour of the Women’s Huron Valley Correctional Facility in Ypsilanti, MI. This tour was facilitated by the Michigan Department of Corrections.
- Surveys were administered to all shadowing and facility tour participants.

Results

- Survey respondents included students who participated in either shadowing (N=4) or facility tour (N=8) programs. For over half of the respondents, this opportunity marked their first visit to a correctional facility.
- Two prominent themes emerged from free-text responses: motivations of healthcare professionals and correctional staff (N=5) and end-of-life care in the prison environment (N=4).
- Overall, students felt it imperative (a mean of 9.2 on a scale of one-to-ten) that medical students be exposed to correctional healthcare.

Student Voices

Professional Motivations

“I was a little bit mortified when our guide said something along the lines of, ‘Oh no, don’t use that drinking fountain! That’s pretty gross-and that’s for the girls.’”

“Many of the staff with whom we interacted seemed ‘checked out’ or ‘jaded’ or seemed happy with the status quo at the prison. They didn’t feel that anything major needed to be changed, nor did they seem to have a desire to effect policy or change at a higher level in the prison system.”

“We had one interaction with a physician on staff, I can’t recall his name, but he seemed to be the one person who had a larger mission of social justice in mind with his work, and it was very apparent when we chatted with him, albeit briefly. He seemed very interested in us and spoke positively about his experience in correctional health and encouraged us to be more engaged with his field.”

End-of-Life Care

“I learned that when a prisoner is dying or sick, if they are not well enough to stand up and walk to the visitation room, they are not allowed any visitors. Their fellow prisoners are also not allowed to visit them. So when a prisoner is alone, sick, scared, and needing human interaction, they are denied of all of that. They are starting a new program called ‘No Prisoner Dies Alone’ and having fellow prisoners assigned to hospice patients so that they don’t die alone. I cannot believe that this has to be a new program. Many prisoners are given a life sentence, which means the court has determined that they will die in prison. How can we let all these people, human people, die in a way that we would not wish on our worst enemy?”

Student Experience

“You can read all about something, but physically being there is incredibly informative.”

“I just thought it was powerful to see this kind of space, which is normally so hidden from public view.”

Discussion

While based on a convenience sample, our results demonstrate an eagerness to engage with the field of correctional healthcare and justice-involved patients during medical school. Survey responses also underscore the importance of creating a forum where ethical dilemmas from the visit can be discussed and healthcare protocol questions can be further investigated.

Moving Forward

Post-visit reflection sessions

Interprofessional collaboration

Institutional relationships

Get Involved

General education about the justice system:
- Watch "The 13th" on Netflix.
- Read Just Mercy by Bryan Stevenson and The New Jim Crow by Michelle Alexander.

Health care professionals and trainees:
- Become trained as a Certified Correctional Health Professional (CCHP) through the National Commission on Correctional Health Care.
- Join the Academic Consortium on Criminal Justice Health (ACCJH), which is free to students, and have direct access to webinars, along with various other resources.
- Start conversations with administrators about the unique health needs of justice-involved individuals and the importance of including this vulnerable population in our curricula.

Advocacy:
- Join Education & Advocacy within Correctional Health at the University of Michigan Medical School.

Current and Future Partners

[Image of partnership logos]
**PURPOSE**
- Future physicians must provide excellent clinical care and lead transformation in healthcare.
- Medical students need skills and experience necessary to cultivate a lifelong impact-focused career.
- The objective of this innovation was to determine if significantly increased flexibility in the 4th year, with mentorship, goal-setting and expectations, would provide structure for students to have an impact in the area of their interest.

**APPROACH/METHODS**
All rising 4th year medical students at one medical school were invited to submit impact-centered proposals, resulting in:
- 25 applications with presentations to curricular leadership
- 9 were selected by the committee for the IMPACT program during the 4th year of medical school.

Students selected a personally meaningful project. Project domains included:
1. Scientific discovery
2. Hospital systems
3. Community health education
4. Entrepreneurialism
5. Global health

Dedicated time for IMPACT was either scheduled as a distinct rotation or as a longitudinal experience.

**Example Schedule For A 4 Year Dual Degree IMPACT Project**

Each student was paired with a faculty mentor who helped guide project selection, progress, and completion. Students and faculty mentors met monthly to provide formative feedback on student performance, which was also assessed by the Competency Committee.

**RESULTS/OUTCOMES**
Project magnitude and related deliverables reflected the diversity of students’ interests.

**Capstone Projects Completed by IMPACT Students**

- “Healing Presence” ICU-Chaplains Collaborative
- Street Medicine
- Combating the Opioid Epidemic in Michigan
- Improve Awareness of Health Behaviors and Obstacles Within the Latino Immigrant Community
- Tailored Glaucoma Education to Improve Patient Outcomes in Southern India
- Entrepreneurship in Medicine: Interning with a VC Firm for Early-Seed Companies
- An Exploration of the Relationship between Memory and the Self-Narrative through Poetry
- Doctors of Tomorrow

- IMPACT pilot students
  - Responded favorably to individualized mentorship
  - Cited ambitions to continue seeking impact-focused opportunities during residency training and beyond
- Faculty mentors
  - Stated that the student-driven aspect fostered students’ creativity in the development of their IMPACT projects
- Challenges
  - Standardized outcome assessment
  - Altering requirements so students could complete both the IMPACT project and their 4th year curriculum

**DISCUSSION**
- The diversity of student IMPACT projects underscored the importance of encouraging students to regard themselves as “Agents for Change.”
- IMPACT assessment criteria must be standardized enough to be applied to all students while being flexible enough to relate to a multitude of projects. Other programs have studied assessment of medical student performance in a capstone course, though scant guidance exists on assessment of student-led capstone projects in undergraduate medical education.
- Future iterations of the IMPACT program require reliable, valid assessment criteria, including forward-looking components to assess career trajectory.

**SIGNIFICANCE**
- A medical student-driven IMPACT project can be successfully completed alongside clinical responsibilities in the 4th year of medical school.
- The IMPACT program empowers students to cultivate their interests and contribute toward meaningful change in the health and well-being of patients and society.
- Development of standardized assessment criteria will facilitate wider use of an IMPACT-focused program within undergraduate medical education.

**REFERENCES**
The University of Michigan Medical School has initiated a comprehensive curriculum redesign to address concerns with the current senior medical student curriculum, including:

1. Disconnection between basic science and clinical experiences
2. Lack of constructive feedback to students
3. Lack of schedule flexibility for students to pursue impact-focused projects to better society’s health and well-being

**PURPOSE**

The evolution of clinical medicine and patient care delivery requires that medical schools adapt accordingly to ensure that medical students are fully prepared to serve as physicians.¹

**RESULTS/OUTCOMES**

- Branch students and advisors have spoken highly of the individualized mentorship within the Branches curriculum.
- Ongoing review of the IDPs by Branch students and their advisors facilitates a competency-based transition to residency.
- Students have also valued the flexibility to create electives tailored to their interests in the context of broader career goals and report increased confidence in their ability to consult scientific literature.

**DISCUSSION**

- Logistical constraints with incorporation of PBSI and SMP ultimately led to creation of dedicated time for deeper scientific thinking across all four Branches.
- Complexities include the administrative support required to successfully facilitate the curriculum.
- As the size of the Branches expands, will need to recruit faculty to learn specifics of the curriculum and serve as Branch advisors.

**SIGNIFICANCE**

- Professional Development Branches (Branches) encourage senior medical students to maximize their medical school experience
  - Customized electives
  - Opportunity to achieve impact
  - Longitudinal relationships between Branch students and advisors cultivate meaningful mentorship
  - Personalized feedback to help prepare for residency
- This pilot curriculum may serve as a model to foster senior medical students to master career-specific scientific knowledge and start an impact-focused career.

**REFERENCES**

An International Collaboration: Team-based Informationist and Physician Instruction in Ghana

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Korle Bu Teaching Hospital2, Accra, Ghana

BACKGROUND

Formal information skills training is not as prevalent for residents and medical trainees in West Africa. There is a significant need for sustainable information skills capacity building.

• Keeping up with information resources and strategies is key to success in an ever-changing world

• Clinicians and researchers need to continuously develop their skills in the process of identifying, appraising, utilizing and managing information in the clinical and research environments effectively and efficiently

Korle Bu Teaching Hospital (KBTH) is the largest medical center in Ghana. In addition to patient care, KBTH provides instruction for a range of trainees in the health professions. Significantly, this includes residents and an ever-increasing number of fellows in medical specialties.

In collaboration with two attending physicians at the Department of Obstetrics and Gynecology at KBTH, Taubman Health Sciences (THL) informationists developed an interactive afternoon workshop for OBGYN residents, fellows, and selected faculty at KBTH.

METHODOLOGY

The objectives of the workshop were to:

• Build awareness of health information resources and data sources

• Focus on strategies to find high-quality, critically-appraised evidence

• Provide an introduction to Mendeley as an information management tool to improve research workflow

The workshop was made up of two parts:

1. Didactic lecture

2. Small group interactive consultations on specific research or clinical questions

RESULTS

The workshop was extremely well-received with requests for additional instruction sessions. Subsequent activities include surveying the residents on their use of information resources introduced during the workshop and identifying perceived impact on their clinical and research activities.

CONCLUSIONS and Future Steps

The informationists became more familiar with teaching in a comparably low resource setting. Challenges included internet speed and availability and addressing trainees’ varied levels of information literacy proficiency. Additionally, some trainees were less computer literate than their colleagues. As instructors, the informationists had to be cognizant of the varied skill levels while teaching.

The team of THL informationists and KBTH physicians plan on assessing trainees’ confidence and perception of information seeking skills and will consider opportunities for asynchronous digital learning.

Information Literacy

“Information Literacy lies at the core of lifelong learning. It empowers people in all walks of life to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals. It is a basic human right in a digital world and promotes social inclusion of all nations.”

Acknowledgements

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Sources:


BACKGROUND

U-M Center for International Reproductive Health Training (CIRHT) and the Taubman Health Sciences Library (THL) are collaborating to build information skills capacity in obstetrics and gynecology training and research within a network of Ethiopian medical schools.

The overall objective of the interdisciplinary collaboration is to enhance information literacy and bring awareness of information resources in reproductive health research and clinical care in developing country setting.

INTERVENTION

- THL’s global health informationist began working with CIRHT in 2016 to:
  - plan on-site information skills training
  - develop synchronous and asynchronous online learning opportunities
  - consult on integrating evidence-based practice resources in reproductive health curricula and research training
  - connect CIRHT with U-M Library’s experts (e.g. publishing, technology)
  - network with information professionals in Ethiopia
  - work as member of a CIRHT systematic review development team

RESULTS

Collaborative activities have included:

- assessment of information skills perception, behavior and needs in cultural context
- investigation of integration of information seeking skills in pre-clinical service educational competencies in Ethiopia
- leveraging information skills training strategies and resources
- educating faculty and clinicians on quality online information resources accessible in the research and clinical settings

LESSONS LEARNED

- Librarians are not as integrated in the clinical or research settings as commonly in Ethiopia as in the United States
- Due to the recognition of information seeking proficiency as a skill in lifelong learning of the medical professional, there is a need to build capacity and consider increased integration of informationists and librarians in health care settings and research in Ethiopian health sciences schools.

The ongoing collaboration between CIRHT and THL has been a successful one as CIRHT’s pilot site in Ethiopia continues to actively work towards empowering women through improvement in reproductive health education.

Future activities include development of digital learning objects and continued collaboration with information professionals in Ethiopia.

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Taubman Health Sciences Library

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THE EDUCATIONAL VALUE OF WORKING AS A MEDICAL SCRIBE

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Background

There is a need to improve the knowledge acquisition and facilitate professional development of medical students. The purpose of this study is to present the benefits which medical students report from their medical scribe work experiences prior to medical school.

Methods

Sixteen current medical students from five different medical schools participated in semi-structured interviews about their experiences as medical scribes prior to matriculating into medical school. Their responses were analyzed qualitatively using thematic analysis to discover the common themes in the data.

Results

Medical students report a variety of educational, professional, and personal benefits from their medical scribe experiences. Many students reported being able to recall specific patient encounters while learning basic sciences and their applications. First year students reported reduced anxiety and increased confidence during simulated patient encounters, and advanced skill in documentation. Many students reported having many professional role models, and being able to do extensive career exploration before becoming a medical student. Other themes include developing stress/time management strategies, professional identity formation, academic and personal resilience, and an increased dedication to the profession. Every one of the participants strongly recommended the experience as a way to prepare for medical school.

Conclusions

Working as a medical scribe has the potential to offer powerful learning experiences that can enhance undergraduate medical education. Through their experiences, former medical scribes report benefits in medical knowledge and professional development. Colleges of medicine may wish to include consideration for medical scribe experience in their admission policies, or look for ways to use medical scribe experiences in the medical school curriculum.

Future Applications and Next Steps

More research is needed to learn more about the experiences of medical scribes. We need to discover more about what medical scribes learn, and how they learn. We need to examine the role of professional relationships with pre-medical students working with attending physicians, residents, and medical students. In addition, as the roles of medical scribes evolve, we will need to see if what and how they learn changes. Workplace learning provides a rich framework for further studies in these areas.
Residency Preparatory Courses for Obstetrics and Gynecology

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University of Michigan Department of Obstetrics and Gynecology

Background

Residency Preparatory Courses:
- Facilitate medical students’ transition from medical school to residency
- Provide a learner handover tool from medical school to residency based upon competencies.

No data exist regarding the prevalence and characteristics of RPC’s.

Purpose:
- To describe the prevalence, structure, and content of Obstetrics and Gynecology RPC’s
- To determine if student performance assessments were fed forward to Program Directors

Methods

- Electronic survey of OB/GYN Clerkship Directors via the Association of Professors of Gynecology and Obstetrics email distribution list.
- Descriptive statistics were tabulated for multiple-choice responses.
- Deemed “not regulated as human subjects research” by the IRB.

Results

44.2% (96/217) response rate

59.4% (57/96) did not offer RPC’s

40.6% (39/96) offered RPC’s

Characteristics of RPC’s:

- <2 weeks long 63.2%
- >4 weeks long 26.2%
- Milestone based curriculum 54.1%
- Assessed Milestones 50%
- Performance info fed forward 18.4%

Conclusions

- Less than half of OB/GYN Clerkship Directors surveyed currently offer RPC’s.
- The structure and content of RPC’s vary widely.
- Only half of RPC’s actually assess competency required for day one of internship, and this information is rarely fed forward to residency Program Directors.
- Further development of RPC educational content, performance assessments to document competency for day one of internship, and transfer of this information to residency Program Directors should be areas of focus for medical educators.