Leveraging Medical Student Teaching & Communication Skills to Create a Stronger Workforce

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BACKGROUND

Primary Care Provider Shortage

The Association of American Medical Colleges predicts the US will face a physician shortage of up to 139,000 by the year 2033 most notably in primary care.[1]

Historically Marginalized in Medicine

Racial and ethnic populations are underrepresented in the medical workforce, which may contribute to discouraging underrepresented youth from pursuing medical careers.[2]

Community Demographics

Pontiac, Michigan is a diverse, resource limited community that neighbors Oakland University William Beaumont School of Medicine.

Educational Intervention

Through exploratory, educational intervention, increased opportunities within the health sciences can be highlighted for historically marginalized communities

OBJECTIVES

1. Identify the importance of targeted outreach to middle school students to pursue careers in medicine.
2. Summarize best practices for implementing community outreach initiatives in an effort to increase the number of practitioners from backgrounds underrepresented in medicine.
3. Summarize best practices for formalized teaching and communication skills training for medical students participating in community outreach programs.
4. Generate potential session activities which incorporate principles of patient and family-centered care to engage families of middle school students in future outreach activities.

PROGRAM SUMMARY

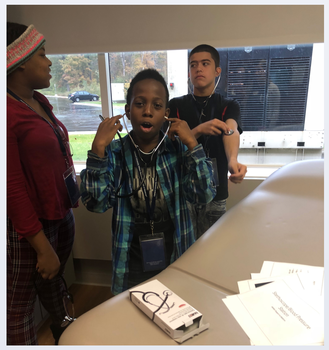
Passport to Medicine (P2M) is a community outreach program allowing medical students to strengthen teaching and communication skills. P2M promotes careers in health sciences to middle school students from demographics historically marginalized in medicine including Blacks, LatinX, and females.

- Five family medicine focused educational sessions including: cardiovascular health, healthcare diagnostic tools, well-being, healthy bones/injury awareness, & differential diagnosis workshop.
- 28 medical students and 53 middle school students participants.
- 54% of middle school students had an interest in pursuing a career in medicine
- 30% of middle school students indicated that interacting with medical students was the best part of their learning experience.
- 71.4% of medical students indicated that they used technical language 2-3 times during their teaching. Most clarified technical language by rewording (71%), providing a definition (57%), and using an analogy (57%).

BEST PRACTICES

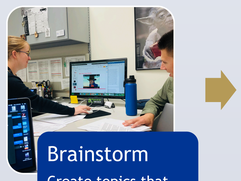
Table 1. Best practices for implementing community outreach initiatives

Foundational Goals	• Align outreach with mission, values, and goals of the educational institution • Identify needs within the community related to the outreach program • Identify target audience • Maximize participant recruitment by partnering with key stakeholders at target community organizations
Activity Development	• Student-driven allows medical students to engage in teaching and communication skills • Maximize medical students' diverse experiences • Guidance and support from faculty, as well as existing resources
Money	• Foundation support • Philanthropy • Internal university awards • Departmental budget
Implementation Considerations	• Logistical: space, time, transportation • Other: supplies, food, legal/protection of minors
Longitudinal Impact	• Number of students pursuing healthcare careers post high school graduation • Positive program reputation within the community
Yearly Evaluation	• Inputs/Outputs (strong community partnership, institutional support, # sessions, # middle school registrants/attendees, # medical students) • Satisfaction scores • Pre/Post session evaluation (knowledge scores, interest in healthcare/medical career) • Continuous process improvement



Why target middle schoolers for careers in medicine?

Middle schoolers are an often overlooked demographic, however academic success within this cohort is the best predictor of college and career readiness at the time of high school graduation.[3]



Brainstorm

Create topics that peaked medical students' interest in STEM pathways

Collaborate

Work with Student National Medical Association to combine topics with students' interest

Develop

Connect with faculty to recruit role models and resources for students

Teach

Translate medical topics related to family medicine into tangible concepts

Assess

Implement surveys to evaluate the efficacy of the lessons plan from all students

Table 2. Best practices for formalized teaching/communications skills training for medical students participating in community outreach programs

Teach-Back	- *Teach-Back* is a communication technique to ensure health care providers have explained medical information clearly to patients and their families through demonstrated understaning.[4] - *Teach-Back* can easily be applied to community outreach settings.
Near-Peer Teaching	- Learners view *near-peer* teachers as authority figures with "insider" status and felt empowered themselves.[5] - *Near-peer* trained medical students are more confident in their teaching compared to faculty trained counterparts.[6]
Just-In-Time Training	- Students may prefer *just-in-time* training modules prior to an event as opposed to reviewing them over time or participating in an in-person training.[6]

Table 3. Incorporating principles of patient/family-centered care to engage families of middle school outreach participants.

Family Engagement	Relationship to Family-Centered Care
Pre-Session Family Interest Survey: Middle school students collaborate with their family to select topics of interest from a pre-determined list.	- Incorporation of family values into session parallels integration of family values in patient care decisions. - Value-based discussion is a pinnacle of patient care.
Post-Session Evaluation of Student Learning/Teaching: After each session, middle school students teach lessons back to family. Families collectively create a poster based on student teaching.	- Effective communication is the bedrock of the patient-physician relationship. - In information sharing, it is essential a patient (student) walks away from an appointment (session) understanding what the clinician (medical student) conveyed to them. [4]
End-of-Year Ceremony: Attended by families where middle school students demonstrate new skills/knowledge by presenting posters.	- "See one, do one, teach one" medical model. - Following the "each one teach one " proverb, when one individual is empowered with knowledge, they in turn have the ability to empower their community. - This proverb places emphasis on patient (student) learning extended to family and community learning.

SUMMARY

There are many best practices that will maximize community outreach in general and improve the healthcare workforce specifically. These best practices:

- Encourage medical students facilitators to tailor and lead educational sessions.
- Allow medical students to enhance teaching and communication skills in an authentic and unscripted environment.
- Target an overlooked demographic (middle school students) that can improve diversity in the medical workforce.

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