A Student-Led National Conference on Leadership: Broadening the Medical Student Role [version 1]

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Abstract
This article was migrated. The article was marked as recommended.

Students have traditionally held a singular role in medical education-the learner. This narrow view neglects students unique perspective and ability to shape the future of medical education. In recognizing the need for deliberate leadership skill development and networking opportunities for medical student leaders, the American Medical Association (AMA) supported the first AMA Accelerating Change in Medical Education Student-Led Conference on Leadership in Medical Education. A planning committee of 19 students from seven medical schools collaborated to develop this conference, which took place on August 4-5, 2017 at the University of Michigan, Ann Arbor. The primary goal of the conference was for students to learn about leadership skills, connect with other student leaders, feel empowered to lead change, and continue to lead from their roles as students. Attendees participated in a variety of workshops and presentations focused on developing practical leadership skills. In addition, students formed multi-institutional teams to participate on in the MedEd Open Peer Review

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First published: 17 Jun 2019, 8:133
https://doi.org/10.15694/mep.2019.000133.1

Latest published: 17 Jun 2019, 8:133
https://doi.org/10.15694/mep.2019.000133.1

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Any reports and responses or comments on the article can be found at the end of the article.
Impact Challenge, attempting to address issues in medical education such as leadership curriculum development, wellness, and culture change. Post-conference surveys showed an overwhelming majority of students connected with other student leaders, shared ideas, developed collaborations, and felt empowered to enact change. Looking forward, we believe that similar student-led conferences focused on broadening the medical student role would provide avenues for positive change in medical education.

**Keywords**
student-led conference, medical student leadership, undergraduate medical education, leadership development, curriculum development, leadership curriculum development, health systems science

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**Competing interests:** No competing interests were disclosed.

**Grant information:** The author(s) declared that no grants were involved in supporting this work.

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**How to cite this article:** Thomas C, Mokshagundam S, Pitkin J et al. A Student-Led National Conference on Leadership: Broadening the Medical Student Role [version 1] MedEdPublish 2019, 8:133 https://doi.org/10.15694/mep.2019.000133.1

**First published:** 17 Jun 2019, 8:133 https://doi.org/10.15694/mep.2019.000133.1
Problem
Students have traditionally held a singular role in medical education - the learner. This narrow view neglects students’ unique perspective and ability to shape the future of medical education (Burk-Rafel et al., 2017). While many undergraduate and graduate medical education programs state they are developing the “physician leaders of tomorrow” through deliberate training, leadership development practices are variable and often lack clear objectives or assessment of the skills attained (Neeley et al., 2017). As a result, students who pursue leadership opportunities within their future careers may do so without having developed a foundational leadership skill set. In addition, opportunities for peer-to-peer student leader networking, an important component of the development of leadership skills, have been limited. In recognizing the need for deliberate leadership skills development and networking opportunities for medical student leaders, the American Medical Association (AMA) supported the first AMA Accelerating Change in Medical Education (AMA-ACE) Student-Led Conference on Leadership in Medical Education.

Approach
A planning committee of nineteen students from seven medical schools collaborated to plan and develop this conference, which took place on August 4-5, 2017. The committee set the primary goal for the conference: for students to learn about leadership skills, connect with other student leaders, feel empowered to lead change, and continue to lead from their roles as students at their respective medical schools. Students from AMA-ACE Consortium schools (Appendix 1) submitted proposals for workshops, oral presentations, and poster presentations to share with conference attendees. The planning committee and faculty advisors reviewed and accepted 66 presentations, consisting of 48 poster presentations and 17 oral presentations. The planning committee chose four central themes for the conference: Learn; Connect; Empower; and Impact, as will be further defined and described below.

Learn
Students first engaged in a workshop on the Competing Values Framework leadership assessment (Cameron et al., 2014). After determining their leadership styles, students were encouraged to form teams of five students with different leadership styles. Teams attended workshops designed and led by students, which provided an engaging experience in developing communication, team building, and problem solving skills. Attendees participated in a mock debate regarding current topics in medical education, identifying potential individuals of influence and refining communication skills by using common tactics of persuasion. Students learned team-building skills through the Tuckman Model of Group Development (Tuckman, 1965), which emphasizes the “forming-storming-norming-performing” phases that allow a team to plan and solve problems. Students then applied these lessons through interactive small group activities. Students developed problem solving skills by applying Plan-Do-Study-Act cycles and critical thinking processes to self-identified challenges related to their educational experience (Gillam et al., 2013).

Dr. Alisha Moreland-Capuia, MD, executive director for the Avel Gordly Center for Healing, assistant professor of psychiatry at the Oregon Health and Science University School of Medicine, and Co-Founder of The Capuia Foundation gave a keynote presentation entitled “Learning to Lead From Where You Are.” Through this presentation, attendees learned about approaches and strategies to act as leaders from their current positions, and the speaker charged attendees to continue leading throughout their medical school careers and beyond.

Connect
Presenters shared student-led innovations and initiatives in medical education, highlighting successes and challenges of student leadership. Through workshops and presentations, students connected with peers from across the country with shared interests in leadership in medical education, helping to develop a personal network critical to a career in academic medicine. These presentations and workshops allowed students to disseminate projects from their home institutions such as women leadership development programs, health policy education programs, and mass casualty trauma simulations. The planning committee selected submissions to provide attendees with ideas to connect with student leaders and implement similar initiatives at their home institutions.

Empower
Following the keynote presentation and student-led workshops and presentations, the teams of students participated in the MedEd Impact Challenge, a central activity thread through the conference. Attendees used their skills and ingenuity to develop potential solutions to three pressing issues in medical education, which revolved around leadership curriculum development, wellness, and culture change (Appendix 2). Students were encouraged to work out of their comfort zone in developing detailed solutions to the proposed problems by working with their teammates of different leadership styles. Following the topic reveal, teams were given two hours to develop their innovative approach to one of the MedEd Impact Challenge questions. Students utilized the skills recently gained from conference workshops, such as Plan-Do-Study-Act cycles, and submitted a written proposal. A panel of faculty judges from the ACE Consortium reviewed these written
proposals and nine of fourteen teams were chosen as finalists. Finalists then refined their innovation and pitched it to all conference attendees. A winning team was chosen for each of the MedEd Impact Challenge questions, and each team was awarded the opportunity to present their solution at the AMA ChangeMedEd Conference in Chicago, IL on September 15, 2017.

Impact
All MedEd Impact Challenge proposals were shared with the principal investigators from the AMA ACE Consortium schools in order to continue dialogue and empower student leaders at these institutions. Students were also encouraged to influence medical education at their home institutions by implementing ideas, programs, and curricula from the leadership conference. The goal was for students to refine their skills in order to serve as agents of change in medical education and to challenge the traditional “student as learner” narrative.

Outcomes
In total, 105 students representing all 32 medical schools in the AMA-ACE Consortium attended the conference. A post-conference evaluation survey was sent to all conference attendees; 24 of 105 students responded (23% response rate). Over 95% of respondents (n=22) rated the conference overall as “Good or Excellent” (Appendix 3). Greater than 90% of respondents stated they felt connected with other leaders, shared ideas, and developed collaborations, as well as empowered and energized to enact positive change in medicine. The majority of students agreed the overarching goals of the conference (Learn, Connect, Empower, and Impact) were met. Post-conference free response surveys stated the conference “raised my level of engagement and passion for making changes in medical education” and “challenged students to critically think and discuss issues pertinent in healthcare and medical school today and develop a viable solution.” Student responses also stated the conference was “very engaging” and “empowering.” Respondents stated they enjoyed working with engaged and highly motivated students from other medical schools and were inspired by conference attendees. We hope that the conference bolstered students’ leadership skill sets, empowered them to lead change at their home institutions, and emboldened them to assume leadership roles in their careers.

In addition to the valuable skills learned from attending the conference, students on the planning committee developed leadership skills through the organization and execution of the conference programming and evaluation, and formed a lasting peer leader network.

Take Home Messages
Conference attendees were encouraged to continue their involvement in medical education as they progress through their careers. After bringing together students from across the country for networking, skills building, and brainstorming, conference attendees were charged to return to their home institutions and share the skills and knowledge they gained. As the first example of a student-led national conference on medical education leadership, more robust evaluation is needed, including additional conferences and going beyond measures of satisfaction to assess skills, knowledge, and behaviors acquired. The long-term impact of this type of conference could be measured by surveying participants at delayed intervals, and interviewing the Principal Investigators at the consortium schools to determine how the student attendees have influenced change in medical education in the year since the conference.

Given the success of this initiative, we anticipate that similar conferences will be held in the future, including even more medical student leaders. We hope this initiative will form a network of students within the national AMA-ACE Consortium that will catalyze changes in medical education and foster student medical education leaders and potential future leaders in medicine.

Notes On Contributors
The above authors were either members or advisors of the American Medical Association (AMA) Student-Led Leadership Conference Planning Committee. This Committee was comprised of students and faculty advisors from seven medical schools within the AMA Accelerating Change in Medical Education Consortium.

Appendices

Appendix 1. American Medical Association Accelerating Change in Medical Education Consortium
A.T. Still University, School of Osteopathic Medicine in Arizona
Case Western Reserve University School of Medicine*
CUNY School of Medicine
Dell Medical School at the University of Texas at Austin
Appendix 2. MedEd Impact Challenge Questions
1. How can medical schools help students to both build leadership skills and prioritize leadership as a critical component of personal and professional growth?
2. How can we create a culture in which students are empowered to be change agents in highly stratified organizational structures?
3. How can medical schools contribute to efforts to prevent student burnout and create environments in which students flourish in the midst of stress and intensity?

Appendix 3. Responses from Post-Conference Survey

| Outcome                                                                 | Response                      |
|------------------------------------------------------------------------|------------------------------|
| Overall conference rating - Good or Excellent                          | 95.7% (22/23)                |
| Learn: I learned about leadership in medical education - Agree or Strongly Agree | 83.3% (20/24)                |
| Connect: I connected with other leaders, shared ideas, and developed collaborations - Agree or Strongly Agree | 91.7% (22/24)                |
| Empower: I was empowered and energized to enact positive change in medicine - Agree or Strongly Agree | 91.7% (22/24)                |
| Impact: I developed knowledge, skills, and behaviors for impacting medical education and healthcare - Agree or Strongly Agree | 79.2% (19/24)                |

Declarations
The author has declared that there are no conflicts of interest.
Ethics Statement
Ethics approval not required for this work, per University of Michigan Institutional Review Board (IRB). This work was exempt as part of the consortium’s general program evaluation protocol. See below communication from IRB:

Title: Creating Innovative Solutions in Medical Education through Crowd-Sourcing to Medical Student Leaders Study

eResearch ID: HUM00132069 Date of this Notification from IRB: 7/27/2017 Date of IRB Not Regulated Determination: 7/27/2017 IRB NOT REGULATED STATUS: Category Outcome Letter Text Quality Assurance and Quality Improvement Activities - Other Based on the information provided, the proposed study does not fit the definition of human subjects research requiring IRB approval (per 45 CFR 46, 21 CFR 56 and UM policy). Although the results of your project may be published, program evaluations, self-assessment of programs or business practices, and other quality improvement projects do not require IRB review because in these cases, it is the activities rather than humans subjects that are the objects of the study.

External Funding
This article has not had any External Funding

Acknowledgments
The authors would like to thank the American Medical Association for sponsoring the first Student-Led Conference on Leadership, and the University of Michigan Medical School for hosting this inaugural event.

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Version 1

Reviewer Report 30 July 2019

https://doi.org/10.21956/mep.19814.r29838

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Jayne Garner
university of liverpool

This review has been migrated. The reviewer awarded 4 stars out of 5

Interesting paper providing insight into the students approach and focus upon leadership. The range of topics covered appears to be vast and this descriptive account gives a brief overview. More detailed information on how students were selected, their demographics and robust evaluation of the sessions would enable further understanding of the conference and its long term impact.

Competing Interests: No conflicts of interest were disclosed.

Reviewer Report 26 June 2019

https://doi.org/10.21956/mep.19814.r29839

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Judy McKimm
Swansea University

This review has been migrated. The reviewer awarded 3 stars out of 5

I was very interested to read about this conference and the associated activities. The main strength of this is the networking and ongoing activities and it will be interesting to see how sustainable this model is. I wondered what leadership theories/approaches underpinned this and would be keen to see a deeper academic reflection on the various approaches role modeled and foregrounded.
Competing Interests: No conflicts of interest were disclosed.

Reviewer Report 25 June 2019
https://doi.org/10.21956/mep.19814.r29836

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BALAJI ARUMUGAM
TAGORE MEDICAL COLLEGE AND HOSPITAL

This review has been migrated. The reviewer awarded 4 stars out of 5

This is the fantastic effort by the students which showed that they are really true leaders of future. As a reviewer and a medical education team member in my institute, I am very happy and excited to read an article on student led conference focusing on leadership. The entire planning and execution of the conference was structured by the students and the outcome, feedback of the participants suggests that this conference would have been a great success. Student led planning committee of nineteen students conducted a conference to learn about leadership skills focusing on central themes like, learn, connect, empower and the impact was well executed overall. Congrats to the entire team. I would like to know more details on this conference so that I can plan such an event in our institution.

Competing Interests: No conflicts of interest were disclosed.

Reviewer Report 19 June 2019
https://doi.org/10.21956/mep.19814.r29837

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Ariela Marshall
Mayo Clinic

This review has been migrated. The reviewer awarded 5 stars out of 5

I was extremely impressed by this manuscript. The paper was incredibly well-written and the content was fascinating and inspiring. The idea of getting medical students involved as leaders from an early stage in training is excellent. Most physicians will step into leadership roles at some point during their careers,
and teaching students the leadership skills they will need as part of medical training seems not only reasonable but in fact like something that should be mandatory. As we develop new educational strategies for the Millennial generation and beyond, we must realize that medicine will no longer be a “vertical” hierarchy but instead a “horizontal” playing field where learners at all stages can grow by learning from each other. Teaching students leadership skills and then asking them to use these skills to problem-solve (the “MedEd Impact Challenge”) is a wonderful way to involve learners even at the beginning stages. I was very excited to read this paper and hope that you publish it soon so that it can be disseminated to leaders in medical schools throughout the country!

**Competing Interests:** No conflicts of interest were disclosed.