

Student Leadership Development Initiative: A Pilot for a Sustainable, Replicable Model for Incorporating Leadership into Medical Education

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ABSTRACT

Introduction: Today's medical students are tomorrow's leaders. As leadership training becomes incorporated into undergraduate medical education, there is a need for validated educational models that are both effective and replicable.

Methods: Between April 2017 and October 2017, groups of 15 to 20 medical students participated in sessions with an exemplary physician leader incorporating a guided interview format and discussion about her or his career. Prepared questions ensured leadership domains were covered. The program was evaluated using a post-session survey.

Results: One hundred percent of survey respondents (N=58) reported that the session was a good use of time. Seventy-eight percent felt more prepared to lead a team; 93% learned specific ways to improve their leadership skills.

Discussion: This leadership program is a unique model to provide leadership education to medical students that is both effective and replicable.

direct the innovations recommended...".³ Solutions have been proposed, but leadership training needs to be more than a mere online module for students to complete or a short course grounded in business pedagogy, because these programs have not been shown to be effective.^{4,5} Unfortunately, many health professionals do not receive leadership training until after they find themselves in a leadership role in residency or beyond.⁶

The Student Leadership Development Initiative was founded on the principle that leadership is best learned through unstructured, personal relationships with exemplary physician leaders.^{7,8} This innovative model offers a novel format for these relationships to develop early in a student's training.

INTRODUCTION

Today's medical students are tomorrow's leaders. As leadership training becomes increasingly incorporated into undergraduate medical education, there is a need for validated educational models that are both effective and replicable.^{1,2}

The call for leadership training in undergraduate medical education is not new. Nearly 20 years ago, the Committee on the Roles of Academic Health Centers in the 21st century recommended that academic health centers "...need to invest in programs and processes for identifying, preparing, and developing leaders who can generate and

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METHODS

The Student Leadership Development Initiative brings students together with senior physician leaders from a broad cross-section of the health care industry and academic medicine. In each 60-minute session, a respected physician leader participates in a guided interview format and discusses his or her career with 15 to 20 students. These sessions occur in the evening over dinner to avoid schedule conflicts. Prepared questions are aligned with the Medical Leadership Competency Framework to standardize evaluation of outcomes.² (See Box 1.) This ensures important leadership domains are covered, such as team development, mentor identification, and work/life balance. Time is set aside at the end of each session for students to ask questions personalized to their interests. Students choose the physician leaders from academic medicine, private industry, and government. Student participants are recruited through their involvement in an educational pathway course at the medical school that focuses on health systems management and policy.

Box 1. Session Questions

Tell us the story of your career. How did you get to where you are today?
What has been a challenge in getting to where you are today? What has been a catalyst?
How have you balanced work and family?
Specifically, what opportunities should we seek out in medical school?
Residency? Early career?
How did you learn to successfully lead a team to achieve a goal?
What is some advice for successfully mentoring employees or students?
What is some advice for cultivating innovation within your team?
How did you learn to manage an institutional budget?
Can you speak to the importance of character and compassion in leadership?

Box 2. Focus Group Questions

What aspects of the program are done well?
What aspects of the program could be improved?
How has SLDI augmented your medical education?
Has SLDI been a valuable use of your time?
Would you recommend this program to your classmates? Why or why not?
Do you feel more prepared for leadership than if you hadn't participated in the program? How so?
How has SLDI affected your career plans?

Abbreviation: SLDI, Student Leadership Development Initiative.

The program was evaluated using Likert scale survey questions also guided by the Medical Leadership Competency Framework, as it has been suggested in prior research that a standardized model for assessment may lead to improved measurement of student competency and understanding of best practices.^{2,9} One or more questions were designed to measure the program's alignment with each of the 5 Medical Leadership Competency Framework leadership domains: setting direction, demonstrating personal qualities, working with others, managing services, and improving services.

Additionally, a focus group of 10 regular attendees was organized in order to attain a big-picture understanding of the strengths and weaknesses of the program along with areas for improvement. See Box 2 for focus group questions.

The Medical College of Wisconsin Human Research Review Board approved the evaluation protocol with anonymous responses as exempt. The program meals were funded by a grant from the Office of Academic Affairs at Medical College of Wisconsin.

RESULTS

Between April and October 2017, 4 physician leaders and 58 students participated in the leadership program. Fifty-eight student surveys were collected after the sessions. Of note, because the surveys were anonymous, it is likely that some individuals who attended multiple sessions filled out a survey at each session they attended. Forty-three (74%) respondents were men and 15 (26%) were women. Eighteen (31%), 22 (38%), and 18 (31%) respondents were first-, second-, and third-year medical students, respectively.

Survey results are shown in the Table. One hundred percent

of respondents said the session was valuable. Ninety-six percent agreed the session addressed the importance of qualities such as character and compassion in leadership; 94% had specific ways in which they wanted to improve their leadership after the session; and over 75% indicated they felt more competent to lead a team. Nearly half reported (41%) that the session affected their career path, while 100% had a better understanding of the career paths of physician leaders from medical school to leadership positions. Ninety-six percent agreed that they had a better understanding of careers in leadership available for physicians, and nearly all participants (95%) agreed that they had a better understanding of the necessary strategy to achieve their career goals.

With regard to practical leadership skills, over 90% had a better understanding of how physicians build and motivate effective teams. Ninety-eight percent had better insight into how physicians cultivate innovation within their teams, as well as better understanding of how they effectively mentor employees and students. Finally, over half of all respondents (59%) had a better grasp of how physicians manage an institutional budget.

Comments from students included, "Leadership in medicine extends well beyond the walls of the clinic," "Find strong mentors and be a great follower," and "Understanding the different personalities you are leading is important to being a good leader."

The focus group of 10 students indicated that the "size [of the group] was one of its greatest benefits." They appreciated being able to directly ask questions of the leader and suggested more time to ask questions, but also thought the prepared questions were effective in guiding the conversation. They also indicated that the program could be improved by including more non-academic leaders and physician leaders early in their career. Students perceived that the program filled a mentorship gap present in medical education. One student said the program "set my sights higher." Students believed it ignited their ambitions to pursue more leadership opportunities in the future.

DISCUSSION

For leadership education to become available for all medical students in Wisconsin and across the country, an effective, sustainable, and replicable model is needed. Though the need for leadership training for medical students is widely recognized, there exists a critical gap in the existing literature of leadership development in medical education.^{1,3} This is the first US undergraduate medical education leadership program validated by a study that emphasizes replicability with effectiveness.

The hypothesis of the Student Leadership Development Initiative was that if a small group of students met for discussions with a physician leader, it would provide leadership training tailored to each student's needs and to each leader's experiences. One hundred percent of students surveyed thought the session was valuable. As medical school curricula become increasingly full, student perception of value is critical to the success of any program. The authors hypothesize that

this outcome may be due to the program's customizable design. Since the group of students gathered at each session was small and unique, the speaker could tailor advice based on the group. At the beginning of each session, each of the students stated their year in medical school and career interests so the speaker was familiar with the assembled group and was, therefore, able to provide leadership insight that was particularly relevant to the group. The fluid curricular structure allowed each of the leaders to teach directly based on their own specific experiences. In addition, the ability for students to ask questions personalized to their interests at the end of the session as an effective mode

of education aligns well with previous studies.⁸ After many of the sessions, students who were interested in the speaker's field personally connected with the speaker. For these students, their leadership development was continued beyond the session itself.

Limitations

One limitation of this leadership program model is that the lack of a formalized curriculum meant that certain leadership topics were not necessarily covered. We attempted to alleviate this by including questions in the discussion guide that corresponded to each of the 5 Medical Leadership Competency Framework domains. The students who participated in the program were not randomly selected from the student population, which suggests the likelihood of volunteer bias. These self-selected students may have had more interest in developing leadership skills and, therefore, would find the sessions more beneficial than students who elected not to participate in the program. Consequently, expanding this program to all students might not generate the same degree of enthusiasm reported by these students.

A further limitation of this study is that the results are based on self-reported surveys, which can be biased by a subject's inability to accurately assess his or her own leadership development.

Next Steps

The next step for this program is to scale up the pilot to allow room for all medical students at our institution to participate and monitor long-term outcomes of leadership effectiveness and positions. Our goal is for all medical students on campus to participate in at least 1 session during their undergraduate medical training and to facilitate students with particular interest to attend many sessions.

CONCLUSION

The Student Leadership Development Initiative offers an effective model to provide leadership education to medical students that is both personalized and thorough. Its simplicity will allow it to be eas-

Table. Survey Results, N=58

| Survey Questions | n | % |
|---|----|------|
| This session was valuable. | 58 | 100% |
| This session displayed the importance of character in leadership. | 56 | 96% |
| This session displayed the importance of compassion in leadership. | 56 | 96% |
| After this session, I have specific ways in which I want to improve my leadership skills in medical school and residency. | 54 | 93% |
| After this session, I feel more competent to lead a team in the future. | 45 | 78% |
| This session affected my choice in career path. | 24 | 42% |
| This session gave me a better understanding of: | | |
| Career path/story of physician-leaders from medical school to their current position. | 58 | 100% |
| How physicians develop the skills to effectively mentor employees and students. | 57 | 98% |
| How physicians develop the skills to cultivate innovation within their teams. | 57 | 98% |
| Career in leadership available for physicians. | 56 | 97% |
| Strategy required to achieve my career goals. | 55 | 95% |
| How physicians motivate others and build effective teams. | 53 | 91% |
| How physicians develop the skills to manage an institutional budget. | 34 | 59% |

ily replicated by other medical schools interested in augmenting their students' leadership curriculum. The authors' hope is that other medical schools that currently lack a leadership program for their students due to a lack of human or financial resources will consider implementing this effective, sustainable, and replicable program.

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