

Student Leadership Development Initiative: Benefits of a Unique Medical Student Organization

Allison R. Linehan, MD; Alexander R. Chartier, MD; Yizeng He, BA; Michael Sobin, MD; William J. Hueston, MD; John R. Meurer, MD, MBA

ABSTRACT

Background: The Student Leadership Development Initiative was founded at the Medical College of Wisconsin to unite local physician leaders with Medical College of Wisconsin students to develop leadership skills and prepare for careers expanding beyond clinical practice.

Methods: An anonymous survey was distributed to 246 current and past Student Leadership Development Initiative participants, probing confidence in leadership skills, professional goals, and the perceived importance of leadership training. Feedback interviews were also conducted.

Results: Respondents reported improvement in areas such as compassion, leadership, and development of career goals. The perceived benefit for developing professional goals and compassion are positively related ($P < 0.01$) to the number of sessions attended.

Discussion: Survey results highlight the importance of leadership training in medical education and suggest an integration strategy for a successful leadership training platform.

INTRODUCTION

Leadership and professionalism are undeniably valuable concepts to incorporate in medical education and are deemed important for addressing challenges in our health care system, particularly when physicians are required to step into leadership roles beyond the scope of traditional medical training.¹ When and how to introduce leadership education and training remains unresolved. Experts encourage the incorporation of leadership education as early as undergraduate medical education and longitudinally through medical training, yet this is a challenge as educational requirements are already extensive.^{1,2} Additionally, there are no established standards, competencies, or program outlines and very little guidance regarding ideal content, delivery methods, or timing for leadership training.^{1,3}

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Author Affiliations: Medical College of Wisconsin, Milwaukee, Wisconsin (Linehan, Chartier, He, Sobin, Hueston, Meurer).

Corresponding Author: Allison R. Linehan, MD, Medical College of Wisconsin, Milwaukee, WI; phone 414.955.1000; email alinehan@mcw.edu.

Despite the challenges of incorporating leadership training into medical school curricula, faculty and students still recognize its importance.³ One systematic review of 26 studies discovered that medical students believe strongly in the importance of learning leadership and management skills.^{1,4} Similarly, another study reported that over 90% of medical student respondents believed that training in medical leadership and management are important to their future roles as physicians.^{1,5} More than 70% of these respondents expressed a desire for more training in their curriculum.^{1,5}

To bridge the gap in leadership education and fulfill medical students' need and desire for leadership training at the Medical College of Wisconsin (MCW), the Student Leadership Development Initiative (SLDI) was founded as a student organization in 2016.⁶ SLDI works to unite local exemplary physician leaders with MCW medical students who wish to develop their leadership skills and prepare for careers expanding beyond clinical practice. Although the group is open to all students, due to M3 and M4 clinical responsibilities, most participants are typically M1 and M2 students. SLDI members are invited to monthly sessions in which 15 to 20 students converse with physician leaders in an open discussion setting, as this has been shown to be an effective method for leadership training.⁷ There is no formal curriculum or itinerary for sessions, and the conversations with the leaders can evolve organically.

The aim of this brief report was to determine how a student-run leadership initiative affected participants' self-reported knowledge and confidence in 5 key areas and to understand the perceived importance of leadership training to medical education.

Table 1. Respondent Demographics, Past Leadership Role, and Student Leadership Development Initiative Sessions Attended (N=41)

Variables	Total N (column %)
Education year	
M1	4 (10%)
M2	11 (27%)
M3	10 (24%)
M4	6 (15%)
PhD in MD/PhD program	2 (5%)
PGY1	8 (19%)
PGY2	0 (0%)
PGY3	0 (0%)
Past participation in leadership role	
No	7 (17%)
Yes	34 (83%)
Number of SLDI sessions attended	
1	7 (17%)
2-3	15 (37%)
4-6	9 (22%)
7 or more	10 (24%)

M1=1st year medical student; PGY1=post-graduate year 1; SLDI, Student Leadership Development Initiative.

METHODS

The MCW Institutional Review Board approved the study protocol. We utilized a 1-time retrospective cross-sectional, anonymous survey and interviews to determine the attitudes of current and former SLDI participants regarding SLDI sessions.

The survey was distributed via email to all current and past SLDI members with active MCW email accounts using REDCap electronic data capture tools hosted at MCW. It included demographic information, number of SLDI sessions attended, and subjective ratings on the importance of leadership skills in comparison to clinical knowledge. Using a Likert scale, the respondent was asked a total of 5 questions regarding the impact of SLDI on certain aspects of medical school training. REDCap software allowed for anonymous completion of the survey, and MCW Information Concealment Engine encryption tools to secure the data.

Fisher exact tests were conducted to determine whether the survey response to each area of benefit was dependent on the number of sessions attended by the respondent. We used Bonferroni correction for multiple testing and set $0.05/5 = 0.01$ as the significance cutoff.

In addition, 2 SLDI co-presidents conducted feedback interviews with 10 to 15 current SLDI members to elicit opinions on leadership in a medical school curriculum and the impact of SLDI. The interviews consisted of both standard questions and time for informal feedback.

RESULTS

Survey

Surveys were distributed to 246 past and present SLDI members. There were 41 responses (17%), with the majority (81%) currently in medical school (Table 1). Several respondents have or

Table 2. Benefits of Student Leadership Development Initiative (N=41)

SLDI helped me:	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Improve leadership skills	0	2 (5%)	5 (12%)	21 (51%)	13 (32%)
Build confidence	0	1 (2%)	11 (27%)	19 (46%)	10 (25%)
Develop professional goals	0	1 (2%)	4 (10%)	18 (44%)	18 (44%)
Increase compassion	0	0	6 (14%)	20 (49%)	15 (37%)
Value wellness	0	0	8 (19%)	15 (37%)	18 (44%)

Abbreviation: SLDI, Student Leadership Development Initiative.

Table 3. Number (%) of Students Agreeing or Strongly Agreeing That the Student Leadership Development Initiative Was Beneficial Based on Number of Sessions Attended (N=41)

SLDI helped me:	Attended 1 Session	Attended 2-3 Sessions	Attended 4-6 Sessions	Attended ≥7 Sessions	P value
Improve leadership skills	6 (14%)	9 (22%)	9 (22%)	10 (25%)	0.02
Build confidence	5 (12%)	7 (17%)	7 (17%)	10 (25%)	0.02
Develop professional goals	7 (17%)	10 (25%)	9 (22%)	10 (25%)	0.02
Increase compassion	7 (17%)	9 (22%)	9 (22%)	10 (25%)	0.01
Value wellness	6 (14%)	11 (27%)	6 (14%)	10 (25%)	0.23

Abbreviation: SLDI, Student Leadership Development Initiative.
P values based on Fisher exact tests and Bonferroni correction for multiple testing, significance level of 0.01.

had a leadership role while in medical school (83%). About a quarter of respondents had participated in 7 or more SLDI sessions, while 17% had attended only 1 (Table 2).

A high percentage of respondents reported that SLDI helped them develop professional goals and build confidence in leading a team (88% and 71%, respectively). Results show that SLDI facilitated respondents' abilities to value wellness as physicians, to be more compassionate and caring physicians, and to learn specific ways to improve leadership skills. (The frequency of responses to key questions are detailed in Table 2.)

Our survey analyzed the correlation between the number of sessions attended and the level of benefit to SLDI participants in all 5 areas. We found that the perceived benefit for becoming a more compassionate and caring physician leader was the only category significantly associated with the number of sessions attended (Table 3). While the other categories did not demonstrate an increased benefit dependent on how many SLDI sessions participants attended, responses were still overwhelmingly positive in all categories.

A majority of respondents (63%) reported that leadership education is of "similar importance" relative to clinical knowledge and skills, while 17% indicated clinical knowledge and skills are "more important" and 20% said they are "less important."

Interviews

Participants reported that the primary goal of a medical school curriculum should be “to produce competent physicians for the community that the school is based in” and those who are “not just good at science” but are “empathetic leaders” as well. When asked about required sessions as part of a curriculum, 1 interviewee said, “[requirements] are good when they serve an actual purpose, they can’t be in a lecture format, they need to be more interactive.” Another student said, “I like that it is a smaller, intimate setting for meetings. [This is] important for the interaction with the invited leaders.” The overwhelming majority of interviewees indicated that SLDI has had a beneficial effect on their leadership education.

SLDI offers a direct connection to potential mentors. “It was more difficult than expected to find a solid mentor [in medical school],” said 1 student interviewed. “Coming from a family of no physicians, I honestly had very minimal information on what medical school was like or insider tips on extra involvement or finding a mentor. SLDI has helped me achieve that.”

DISCUSSION

Our results indicate that SLDI participants found benefit in attending leadership sessions. This is shown by the overwhelmingly positive responses, as at least 71% of respondents selected “agree” or “strongly agree” for all of the survey questions. Since 88% of respondents agreed or strongly agreed that SLDI helped in developing professional goals and career paths, it is evident that the SLDI platform has been successful. Our results are similar to other studies, including one that also utilized surveys and showed that participants in a medical leadership and management training program had an overwhelmingly positive response and found the program interesting, useful, and relevant to their careers.⁸

These results are encouraging for the utility of SLDI as a way to disseminate important nonclinical information to medical students. Furthermore, because participants believe they are cultivating these skills without having to attend multiple sessions, this format could be used as an informal way to include leadership education in a medical school curriculum. Though this study demonstrates the benefits of our SLDI platform on leadership education of our students, there are still barriers to integrating SLDI into a medical school curriculum. Each session is unique and what students take away—aside from the 5 categories we studied—can be highly personal and dependent on the physician leader guests. We are still developing a concrete educational program and uncovering methods for longitudinal integration of our platform into medical school curricula.

Our study has limitations. The nature of retrospective surveys means that there is the possibility for recall bias. Furthermore, our study lacks a control population, which would include students who did not participate in SLDI sessions. This selection bias may skew our results to show that SLDI is providing benefit to students who are interested in attending our sessions. We recognize students who attend SLDI sessions are intrinsically motivated to learn leadership

skills and may not reflect the entire student population. Additionally, our survey response rate is lower than most reported values.⁸ We suspect this reflects the low proportion of students on our email listserv (246 emails) who consistently participate in sessions and are most likely to respond to the survey. Students can add their emails to the listserv, typically after signing up during the annual MCW Student Organization Fair, without having attended a session.

Determining best practices for leadership training has been challenging; however, we have shown that SLDI is beneficial to participants’ medical education.⁹ This study provides insight for leaders in medical education as they seek to implement additional aspects of medical training beyond clinical skills.¹⁰ We have shown that small group discussions are effective for dissemination of skills and knowledge important for leaders and, in relatively few sessions, students reported that they developed leadership skills, outlined professional goals, gained confidence in leading a team, and expanded their compassion and care.

Acknowledgements: This study was supported by the Medical College of Wisconsin Institute for Health and Equity where Dr Meurer serves as director and Ms He is a biostatistician. At the time this paper was written, Drs Meurer and Hueston codirected the MCW Health System Management and Policy pathway in which Dr Linehan and Dr Chartier were enrolled.

Funding/Support: None declared.

Financial Disclosures: None declared.

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