BRIEF
REPORTS

A Master Class in Family Doctor Leadership: Evaluating an Innovative Program

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BACKGROUND AND OBJECTIVES: In family medicine, leadership is critical for health care delivery, advancing curricula, research, and quality improvement. Systematic reviews of leadership development programs in health care identify limitations, calling for innovative designs and rigorous assessment. Our objective was to evaluate the impact of applying master class principles to leadership development in academic family medicine.

METHODS: We used mixed methods to assess the impact of an innovative master class program on 15 emerging leaders in a large academic department of family medicine. The program consisted of five sessions where family physician masters shared their wisdom, techniques, and feedback with promising leaders. Quantitative evaluation involved participants' ratings of each session's content and delivery using a 5-point Likert scale. We assessed postcourse semistructured interviews with participants qualitatively using descriptive thematic content analysis.

RESULTS: Individual sessions were highly evaluated, with a combined mean of 4.82/5. Qualitative thematic analysis identified self-perceived increased effectiveness in leadership activities; increased confidence as a leader; increased motivation to be a leader; and perceptions of value from the program, contributing to what participants described as unexpected potential change within themselves. Themes related to effectiveness of the program were practical advice; networking; diverse topics; accessible speakers sharing personal stories; and small-group, informal, early-evening format.

CONCLUSIONS: Master class concepts can be adapted to leadership development in academic family medicine, with evidence of early positive impact on participants' self-perception of leadership skills and confidence. Further research is warranted to assess organizational impact and applicability to other settings.

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Leadership in family medicine (FM) is crucial for reshaping health care delivery, evolving curricula, expanding research, and focusing on quality improvement.[1-4] The growing importance of leadership in medicine is reflected in its inclusion as a competence for trainees and practitioners.[5-8] Leadership development programs have proliferated, yet systematic reviews find limited evidence of impact and call for rigor in identifying effective innovations.[9-15]

We postulated that a leadership development program modelled on music master classes could address an identified gap in supporting emerging leaders in our academic FM department. The defining

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features of master classes are that accomplished students are invited or apply to perform in a group setting for a recognized master, who demonstrates and explains techniques and provides feedback and advice.[16] Previous reports on master classes in health care include only some of these attributes.[17-21]

Methods

Setting

The Department of Family and Community Medicine (DFCM) at the University of Toronto is diverse and widely distributed, comprising over 1,700 faculty at 14 hospital-affiliated sites and multiple community practices.

Intervention

Our program is described in Figure 1. The precourse assignment adapted the performance attribute of music master classes. In some sessions, the masters stimulated discussion and advice regarding participants' descriptions of their leadership challenges, but there was no grading or critique of individuals.

Design and Analysis

We used mixed methods to capture quantitative ratings of sessions and participants' experience.[35] The quantitative evaluation was a questionnaire following each session.[36] Participants rated content, process, and speakers on 10 attributes using a 5-point Likert scale.

For the qualitative evaluation, semistructured participant interviews were conducted 6 to 12 weeks following the last session by an independent qualitative researcher (S.C.) using a semistructured interview guide (Figure 2). Telephone interviews lasted 30-60 minutes, were audio-recorded, and transcribed verbatim. Data were initially organized and coded by S.C. in Dedoose, an online qualitative data software. Initial data organization mapped coded excerpts to interview questions with layered coding capturing more specific accounts or experiences. Following this, team members (S.C., J.C.C.,

Figure 1: The Master Class Program Description

The Model: The master class approach in music:
Master musicians share their wisdom, insights, techniques, coaching and feedback
- With aspiring performers selected on the basis on of their ability and promise

The Program
- Five 2-hour evening sessions over 10 weeks
- Each conducted by a master: faculty members who are internationally recognized leaders in areas relevant to academic family medicine

Participants
15 faculty members nominated by their site chiefs, based on **two criteria:**
- Demonstrated achievement in leadership
- Future potential growth as leaders

Preparation
1) Prereading: Two articles on family doctor leadership
2) Assignment: "Submit a one-page description of a leadership challenge you are facing in your current role"
Purpose of the assignment
- To engage participants in thinking about how they can apply learnings from the program
- To orient session leads to how participants conceptualize problems and potential solutions
- *Not* to specifically address or "solve" each issue
- To adapt the performance aspect of music master classes to leadership development

Session Themes	Session Leads (Masters)
Working with health services	Danielle Martin
Working with medical education	Cynthia Whitehead
Working with the media	Marla Shapiro
Working with health research	Richard H. Glazier
Working with government, industry and not for profit boards	Michael Kidd

Format:
- Highly interactive small group sessions
- A brief presentation from the "master" faculty member
  - followed by or incorporating questions and discussion
- Time: 6:00 – 8:00 PM, dinner at 5:30 PM
- Setting: a comfortable meeting room on campus, away from clinical responsibilities

Figure 2: Semistructured Interview Guide

Part I: Introduction

Thank you for agreeing to participate in this interview today. (*Outline REB standards regarding data aggregation and participant confidentiality*). The purpose of this interview is to help the *Master Class Series* facilitators and presenters better understand what the process of attending the *Master Class Series* was like, allowing participants to reflect on the personal, social and political aspects of the experience and how it has (and will) contribute to their leadership development journey.

Part II: Interview Questions

1. What are your initial reactions regarding your experience in the *Master Class Series in Family Doctor Leadership?*	
Probes: *(used as needed)*	
Why did you have this initial reaction?	What were your expectations for the class?
Did your experience meet your expectations?	
2. Did you attend all five *Master Class Series* lessons?	
Probes: *(used as needed)*	
If missed classes: What prevented you from attending (personal, topic not of interest, scheduling conflict, etc)?	If missed classes: do you feel as if your overall experience and development in the Master Class course was negatively impacted by missed classes?
Do you think the classes should be mandatory? Why or why not?	If no missed classes: How do you think your overall experience and development would have been impacted if you had missed one or more classes?
3. What were the ***most*** effective or useful aspects of the *Master Class Series* format?	
Probes: *(used as needed)*	
What made this aspect effective?	How could it be further improved for future programs?
4. What were the ***least*** effective or useful aspects of the *Master Class Series* format?	
Probes: *(used as needed)*	
Why was this aspect not effective?	How could it be improved in future programs?
5. What are your reactions to the presenters and topics selected for the *Master Class Series* format?	
Probes: *(used as needed)*	
Are there specific topics that you would like to see covered? Why is that topic important?	Were there topics that were covered that you did not find useful or were redundant? Why is that?
How could the presentation format be improved in future *Master Class* courses?	
6. Overall, from your perspective as a faculty member in academic medicine, how useful did you find the *Master Class Series* ?	
Probes: *(used as needed)*	
Why do you feel that way?	Would you take another *Master Class* course in the future?
Would you recommend this course to other faculty?	What *Master Class* session did you find the most useful?
7. In what ways has attending the Master Class impacted your work in academic medicine or in your clinical practice? E.g., created new opportunities, created new mentoring relationships, changed your perspective in some way, etc.	
Probes: *(used as needed)*	
Why is that important to you?	What aspect(s) of the *Master Class* course do you attribute this to?
8. In what ways did your thinking about or approach to your selected problem evolve over the course of the MasterClass?	
Probes: *(used as needed)*	
Were there topics that were missing?	Were there topics that were not useful/redundant?
How could the presentations be improved in future programs?	
9. What would you like to see in future MasterClass programs?	
Probes: *(used as needed)*	
Were there topics that were missing?	Were there topics that were not useful/redundant?
How could the program be improved?	
10. How would you describe your interaction with others in the MasterClass program?	
Probes: *(used as needed)*	
With fellow participants?	With session leads?
11. Do you have any additional comments or suggestions about the Master Class program?	

D.G.W.) independently reviewed the transcripts using descriptive thematic analysis.[22] All team members then discussed and agreed upon themes. Any differences were resolved through discussion. Team members conducted a separate analysis of the participants' precourse assignments. Two researchers (J.C.C., D.G.W.) identified themes independently and resolved any differences through discussion.

The Research Ethics Board of the University of Toronto approved the study.

Table 1: Themes Identified in Participants' Responses to the Precourse Assignment: Descriptions of Leadership Challenges They Were Facing (15 Participants)

Leadership Challenge Theme	Number of Times Identified*
Energizing a team/changing behavior Engaging physicians in: • Hospital committees • Teaching • Leadership • Quality improvement projects	6
A new leadership role	1
Change management: new direction or program	5
Scheduling – IT and human resource challenges	1
Project implementation	1
Staff personnel conflict	1
New financial/partnership agreement	1
Family medicine residency program • Patient and supervisor challenges • Admission process	3
Delivering a patient care service	1
Managing physician burnout/competing demands	2
Changing clinical practice/quality improvement	2
Communication	1

*More than one theme was identified in some leadership challenge descriptions.

Table 2: Overall Ratings of the Five Master Class Sessions*

Item	Mean Rating of Five Sessions	Standard Deviation
Program Content and Delivery		
Was relevant	4.74	.44
Met my expectations	4.77	.52
Was well organized	4.79	.48
Met stated learning objectives	4.83	.45
Disclosure of potential conflicts of interest was clearly communicated	4.91	.34
There were adequate opportunities to interact with my peers	4.80	.48
There were adequate opportunities to interact with faculty	4.88	.37
I will use the information I learned in my formal and informal leadership roles.	4.80	.47
Session and Speaker		
The master class was useful and enhanced my knowledge of the subject	4.80	.47
The speaker was engaging and clear	4.83	.42
Overall	**4.82**	**.45**

*There were 66 responses. With 15 participants and 5 sessions, the maximum possible number of responses is 75, but some participants were unable to attend all sessions.

Results

There were 15 family physician participants, 13 women and 2 men. Themes in participants' precourse assignment are listed in Table 1.

Quantitative Results

Table 2 shows the course ratings for the session attributes. The mean rating for all five sessions was 4.82 out of 5 (SD 0.45).

Qualitative Findings

All 15 participants agreed to be contacted for postcourse interviews; 10 scheduled and completed interviews. Participants described the impact of the master class program and program attributes that were more or less effective. They described themselves as increasing in effectiveness, confidence, and motivation in leadership and that the program had contributed to unexpected potential changes within themselves. This could manifest as enhanced openness to new endeavours such as research or speaking to a reporter. Participants described changes that they had already incorporated, such as new skills, recognition of inherent abilities, and reinvigoration as a faculty member. Table 3 gives themes with representative quotes.

Participants identified some program attributes as both effective and ineffective. The interactive format was appreciated, but perceived by some as less transformative or exciting. Timing and location were considered problematic by those travelling greater distances, but dining together and being away from work were valued. Diverse topics and speakers were assets, but specific ones were identified in some interviews as less relevant.

Discussion

This evaluation of a leadership development program designed on the principles of music master classes shows evidence of early positive impact based on participants' self-evaluation. This program differs from previous reports of master classes in health care by incorporating key

Table 3: Qualitative Themes

	Theme	Subtheme	Representative Quote
Individual Impact	Self-perceived increase in effectiveness	Enhanced self-awareness and acceptance	"… in terms of changing my thinking and being more open to thinking about myself as a leader and thinking about how I can improve and enhance my skills as a leader."
		Acquisition of specific skills	"How to run an effective meeting…how to be an effective participant…are things I have already implemented, and I think will impact my current efficacy as a leader and also, potentially, future career."
	Increased confidence	As a leader (general)	"I actually never thought of myself as a, quote/unquote, "good leader"...I think when you are singled out by someone, as it were, a mentor challenges you with a new opportunity, it can sometimes provide, maybe, some confidence or, maybe, just some space to think that you would not normally allow yourself to do."
		Leading in specific endeavors	"What I really do feel that I'm more comfortable in doing is pushing people, and gently reminding people, or asking people why they didn't attend a meeting."
	Increased motivation and opportunities		"I thought that the speakers were fantastic, and the group was really motivating to be a part of."
	Perception of value, possibly leading to change	Unexpected value	"I probably might be more inclined to take on something that I may have shied away from in the past."
Program Attributes	Effective attributes	Practical advice from experts	"That's what a master class should be actually. It's really getting information from people who have worked in this field for a long time and just picking their brain for important little details."
		Networking	"I think it was really nice to network with other people who are current leaders in the department, and who are doing various, or leading various initiatives, again, in very different disciplines within the field of family medicine."
		Precourse assignment	"… it made it really feel like it's something that is quite relevant to the leadership work that I was doing."
		Speakers sharing personal experiences	"She talked a lot about her own experiences, and where she came from, and also being imperfect and vulnerable at times, but at the same time, really being strong enough to face the challenges and solve the challenges."
		Interactive format	"… they're not talking down to us. It was a much more collegial conversation, which I think was good and essential."
		Diverse topics and speakers	"I got to really have a sense of the areas that one could look at in terms of developing your own leadership, and that there isn't just one formula or one way to do it."
	Less effective attributes	Interactive format	"I would say [the program] was more on the, well, that was interesting and something to think about, as opposed to, wow, I'm going to go out and do that and change my life."
		Specific topics	"It [the topic] was probably less relevant to me."
		Time	"…that time of the night, I think 6:30 to 8:30, we've all worked long days."
		Location	"…one day it took me almost a half an hour just to travel."

defining characteristics: course leaders who are recognized masters, participants selected on demonstrated ability, a performance consisting of a precourse assignment, and a highly interactive format.[17-21]

Qualitative findings indicate successful incorporation of qualities that Souba identified as crucial for building leadership capacity: "ingredients that catalyze and enhance human connectivity, augment social capital, and activate leadership."[23] Increased confidence, motivation, and self-awareness contribute to leadership activation. The opportunity to form new relationships with colleagues and potential mentors represents a significant benefit for a large, widely dispersed academic enterprise.[33]

Our findings align with Steinert's review of faculty development initiatives to promote leadership in medical education.[12] These include high levels of satisfaction, greater awareness of personal strengths and limitations, increased motivation, confidence and networking, gains in knowledge and skills, and increased awareness of leadership roles. Systematic reviews identified the reliance on lectures and didactic methods as a weakness of physician leadership development programs.[11,13] The interactive format of the master class addresses this concern.

The selection process incorporated a key recommendation from the Leadership Development Task Force of the Council of Academic Family Medicine, stating:

> In developing the leadership pipeline, current leaders should look to colleagues, including junior colleagues, who may not have self-identified as leaders but who have demonstrated leadership potential.

Study limitations include studying a small cohort at a single institution, lack of a control group, short follow-up time, and no assessment of organizational impact. Pre/post comparison is commonly employed for course evaluation; we chose qualitative methods to gain in-depth understanding of the meaningful and useful aspects of the program that contributed to growth and change. Although interviews could be scheduled with only 10 of 15 participants, the qualitative data is detailed, with important recurring themes evident in the descriptive thematic analysis. The precourse assignment is a limited adaptation of the performance attribute of master classes. Ericsson states that rigorous measurement of superior performance in medicine is difficult but possible, yet none of his examples address leadership performance.[24,25] Enhancing the performative element remains a challenge and opportunity for further development.

An unexpected finding was the 13 to 2 ratio of female to male participants, significantly greater than the departmental ratio of 52:48. Criteria for selecting participants included no reference to gender, and 10 of the 15 nominating chiefs were men. Continuing the program will determine if this occurrence was random. Nevertheless, this group represents a cohort of emerging leaders with potential to redress the gender imbalance among senior roles.

Further research is needed to assess the longer-term impact on participants and the organization. Although not explicitly modelled after master classes, leadership development programs in medicine often incorporate similar elements. Intentional application of master class principles has the potential to enhance existing programs. Evaluating virtual delivery is relevant for broadening the scope and accessibility of this approach.

Conclusion

Master class principles can be adapted to leadership development in academic FM, with qualitative evidence of early positive impact based on participant self-assessment.

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White DG, Glazier R, Martin D, Shapiro M, Whitehead C, Carroll J, Freeman R, Crann S, Kidd M. The Master Class Series in Family Doctor Leadership: Evaluation of a new approach to leadership development (poster presentation). Family Medicine Forum 2019, College of Family Physicians of Canada. October 30, 2019. Vancouver, BC, Canada.

White DG, Glazier R, Martin D, Shapiro M, Whitehead C, Carroll J, Freeman R, Crann S, Kidd M. Evaluating a Master Class in Family Doctor Leadership: Completed Research (oral presentation). November 20, 2020. North American Primary Care Research Group Virtual Conference.

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