

Building the Foundations of Pharmacy Leadership: Creation, Implementation, and Evaluation of a Leadership Development Course

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BACKGROUND

- Implementation of student pharmacist leadership training can increase professional success post-graduation and enhance patient care.^{1, 2}
- Pharmacy burnout is increasing in students and faculty.^{3, 4}
- The University of Michigan College of Pharmacy sought to increase opportunities for student leadership development, in a manner minimizing burnout for faculty and students.

OBJECTIVE

- Discuss the design, implementation, and evaluation of an elective course developed to equip learners with leadership skills and enhance the potential for future advocacy and leadership roles.

METHODS

Course Design

7 week, fully remote, pass/fail,
1 credit elective course

Offered to second- and
third-year PharmD students

Synchronous and
asynchronous sessions

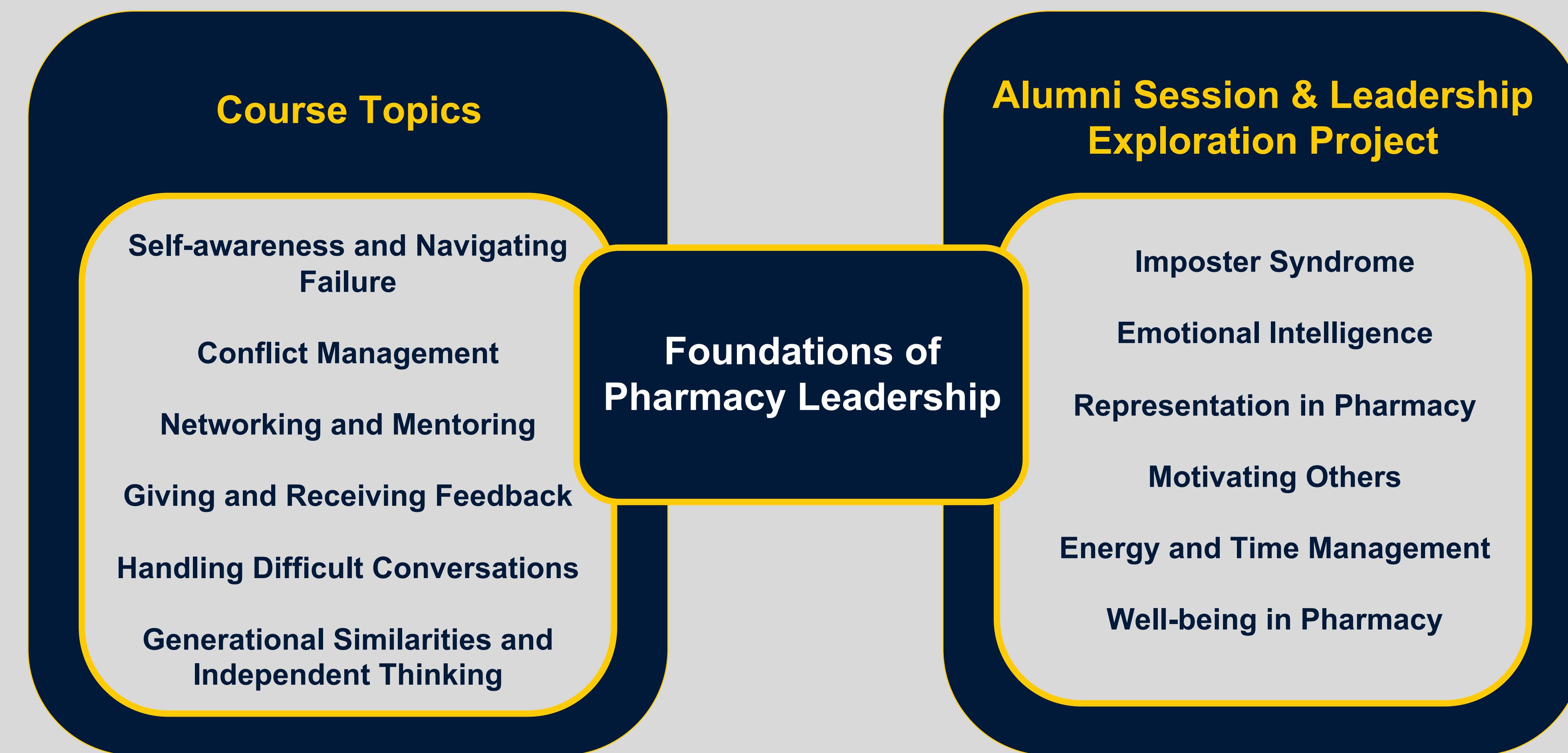
Facilitated by adjunct pharmacy
faculty health-system leaders

Course Evaluation

Pre- and post-course surveys were administered via Qualtrics during the Winter 2022 and 2023 semesters to examine students' growth of leadership development.

Survey questions utilized a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). Results were analyzed by taking the difference between mean scores of each question in the pre-and post-course surveys.

A paired t-test was then used to assess significance.
All tests run assumed a type 1 error rate of 0.05.



RESULTS

- Fifty-two PharmD students enrolled during the Winter 2022 (17) and 2023 (35) semesters.
- Comparison of pre- and post-course survey results demonstrated improvement in conflict management, awareness of strengths and weaknesses, communication and teamwork, networking, and navigating feedback and difficult conversations (Table 1).

Table 1. Pre- and Post-Course Survey Results

Question	Pre-Course Survey n (%)			Post-Course Survey n (%)			P-Value
	SD/D	N	A/SA	SD/D	N	A/SA	
I am motivated to take on leadership positions in my future career	0 (0)	19 (36.5)	33 (63.5)	0 (0)	9 (17.3)	45 (86.5)	0.001*
I am aware of my strengths that help make me a successful leader	2 (3.8)	16 (30.8)	34 (65.4)	0 (0)	3 (5.8)	49 (94.2)	<0.0001*
I am aware and consistently trying to improve in areas I am not as strong in	3 (5.8)	11 (21.2)	38 (73.1)	0 (0)	3 (5.8)	49 (94.2)	<0.0001*
I can identify key characteristics of effective communication and team dynamics	1 (1.9)	12 (23.1)	39 (75)	0 (0)	1 (1.9)	51 (98.1)	<0.0001*
I can effectively engage in conflict management	8 (15.4)	21 (40.4)	23 (44.2)	0 (0)	4 (7.7)	48 (92.3)	<0.0001*
I am confident in my ability to seek mentor(s) for my career development	10 (19.2)	18 (34.6)	24 (46.2)	2 (3.8)	7 (13.5)	43 (82.7)	<0.0001*
I can identify effective networking strategies	10 (19.2)	21 (40.4)	21 (40.4)	0 (0)	4 (7.7)	48 (92.3)	<0.0001*
I can identify strategies on how to handle difficult conversations	9 (17.3)	20 (38.5)	23 (44.2)	0 (0)	2 (3.8)	50 (96.2)	<0.0001*
I can describe characteristics of effective feedback	3 (5.8)	15 (28.8)	34 (65.4)	0 (0)	2 (3.8)	50 (96.2)	<0.0001*

*Statistical significance at $\alpha=0.05$; SD: Strongly Disagree, D: Disagree, N: Neutral, A: Agree, SA: Strongly Agree

RESULTS

> 90% of students who took the course indicated they:

- Enjoyed the virtual course design
- Appreciated the variety of adjunct faculty instructors
- Found the Alumni Session beneficial to their professional growth
- Believe this course contributed to their development as a PharmD student
- Agree this course provided them with fundamental tools for future leadership roles
- Gained confidence in their leadership skills
- Would recommend this course to a peer

CONCLUSIONS

- Incorporating content taught by alumni and adjunct faculty health-system leaders benefited all involved.
- In the context of limitations including a small sample size and potential demand survey bias, implementation of a virtual elective course resulted in positive outcomes for students' leadership development.

REFERENCES

- Am J Health Syst Pharm. 2011;68(23):2293-2295.
- Curr Pharm Teach Learn. 2021;13(6):659-664.
- Curr Pharm Teach Learn. 2019;11(3):243-250.
- Am J Pharm Ed. 2017;81(4):Article 75.