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Constructing a Learning Community: One Medical Schools Needs Assessment

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Background

Based on research from Ferguson, et. al., medical school learning communities are designed to enhance student learning by supporting students academically and socially (2009) utilizing various structures. These learning communities (LC) have been implemented for various reasons, including student well-being, curriculum reform, and advising/mentoring among others.[1,5,6,7,10,12] Therefore, the goals of LC vary across programs [1,4,7,8,9,12] allowing for individualized incorporation within their institution. This individualization also allows the members of LC to have an impact on their design and application.

Recent efforts have been focused on gathering data to better characterize LCs to lay groundwork for outcome studies[13]. Even with the variety, studies have shown that there is benefit to students and faculty that are involved in their LC[1,2,3,8,10,11,14]. However, there is a lack of information describing how to evaluate a programs' needs for a LC and what structure would work best. The goal of this study is to develop a needs assessment that can be utilized by other programs to implement LCs. It will also provide a method for programs that already have a LC to evaluate if those participating in the LC are reaching goals.

While it has been shown that faculty report job satisfaction[14] associated with LC involvement, there is little information provided about their role in implementation. In addition to evaluating what the needs of the students are for LCs, this study will also obtain information from faculty involved to see how their ideals parallel students as well as what they deem important in creating an adequate LC. This will allow LC directors to align goals between faculty and students involved to hopefully provide a collaborative environment for everyone involved.

The University of Nebraska Medical Center (UNMC) recently trialed the LC design as a House system to replace the prior advising structure as well as provide enhanced support that LC have demonstrated in other programs. The alteration of advising structure changed along with implementation of a new curriculum. However, the needs of students weren't met resulting in the dissolution of this first medical LC attempt. The results of this study will help guide UNMC, as well as other institutions, to LC implementation.

Methods

This is a mixed methods study utilizing focus groups and surveys. Eligible participants included medical students from the Class of 2021 (average class size 130) and Class of 2022 (average class size 130) as well as faculty (17) that participated in the initial implementation of the House system in 2018, for a total of 277 eligible participants. Faculty and students were separated from each other to compare ideas regarding the needs from different perspectives..

All eligible individuals were contacted via e-mail to volunteer for two separate focus groups. One focus group was composed of medical students while the other was composed of faculty. Each focus group was moderated by an impartial individual who was not involved in planning or implementation of the House system. Transcripts of each focus group were evaluated by the principal investigator for common themes. These were then used to create two surveys: one for medical students and one for faculty.

The surveys were created using Microsoft Forms and links were sent via e-mail to all eligible participants. Response was voluntary and no identifying information was collected. The surveys were composed of 51 (student) or 53 (faculty) Likert scale questions and one open-ended response. The wording was modified for each respective cohort.

Likert scale questions were converted to numerical values, 1-5, corresponding to strongly disagree through strongly agree to calculate median values. Median values between the cohorts were analyzed using a Mann Whitney U test. Each question was also individually analyzed in each cohort by separating responses into either agree (values 4 and 5) or disagree (values 1 and 2) and performing a Chi Square test of independence

Identified Themes

Transcripts were evaluated for recurring themes that were consistent between the two cohorts. These themes were then used to guide development of Likert scale questions.

Advisor vs Mentor vs Coach vs Peer Mentor	Planning/Goals to Include Below
Formal vs Informal	Time/Preparation
Connection/Community	Member "Buy-In"
Curriculum Vitae Building	Academic vs Social vs Service vs Wellness vs Hybrid Model

Faculty Question	X^2 p-value
I have identified a student to mentor	0.21
I have time to incorporate more activities into my schedule	0.74
Student needs for advising have been met	1
Student needs for coaching have been met	0.65
Student needs for mentoring have been met	0.65
Student needs for peer mentoring have been met	1
Being an advisor is important to me	0.0005
Being a coach is important to me	0.003
Being a mentor is important to me	0.0005
I want to be assigned as an advisor	0.034
I want to be assigned as a coach	0.025
I want to be assigned as a mentor	0.034
A medical LC should be student-driven	0.035
A medical LC should be faculty-driven	1
There should be funding for a LC	0.003
A LC should be a hybrid model of academic/social/service/wellness events	0.004
Time to participate in LC should be built into the schedule (not part of the curriculum)	0.035
I am interested in being a member of a medical LC	0.034
I want a medical LC at UNMC	0.046

Student Question	X^2 p-value
I have identified an advisor	0.011
I have identified a mentor	0.009
I have time to incorporate more activities into my schedule	0.24
My needs for advising have been met	0.002
My needs for mentoring have been met	0.006
My needs for peer mentoring have been met	0.019
Having an advisor is important to me	0.00000004
Having a coach is important to me	0.004
Having a mentor is important to me	0.00000003
Having a peer mentor is important to me	0.0004
I want an advisor assigned to me	0.0003
I want a coach assigned to me	0.53
I want a mentor assigned to me	0.022
There should be a designated space for a LC	0.00004
There should be funding for a LC	0.000004
A LC should be a hybrid model of academic/social/service/wellness events	0.00000007
Time to participate in LC should be built into the schedule (not part of the curriculum)	0.00002
I am interested in being a member of a medical LC	0.0002
I want a medical LC at UNMC	0.0002

Likert Scale	Value Assigned
Strongly Disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly Agree	5

Question	Faculty Median	Student Median	MWU p-value
Being/Having an advisor is important to me	4	5	0.56
Being/Having a coach is important to me	4	4	0.56
Being/Having a mentor is important to me	4	5	0.45
Students having a peer mentor is important	5	4	0.10
I want to be assigned as an advisor	4	4	0.82
Students should have a peer mentor assigned	4	3	0.013
A medical LC should be student-driven	4	4	0.88
There should be funding for a LC	4	4	0.23
Members should include clinical faculty	4	4	0.79
Members should include basic science faculty	4	3	0.024
Members should include residents	4	4	0.41
Members should include all years of medical school	4	4	0.81
A LC should be a hybrid model of academic/social/service/wellness events	4	5	0.25
Time to participate in LC should be built into the schedule (not part of the curriculum)	4	4	0.86
Time to participate in LC should be up to participants	3	4	0.016
I am interested in being a member of a medical LC	4	4	0.91
I want a medical LC at UNMC	3	4	0.14
A medical LC would be a good way to meet some of the needs that were identified as not being met	4	4	0.45

Discussion

Faculty response rate was 71% with 12/17 responses. Faculty identified that being an advisor, coach, and mentor is important to them and that they would be comfortable being assigned in any of these roles. Faculty identified that a learning community (LC) should be student-driven with funding of a hybrid model that includes academic, social, service, and wellness events. Also identified was that time should be built into the schedule without being part of a formal curriculum. Faculty are interested in being a member of a medical LC at UNMC. There was no significance in identifying students to mentor or student needs being met for advising, coaching, mentoring, and peer mentoring.

Student response rate was 13.1% with 34/260 responses. Students identified that they have an advisor and mentor along with needs for advising, mentoring, and peer mentoring being met. Students do agree that having an advisor, mentor, coach, and peer mentor is important to them, but would not want a coach assigned. Students agree that there should be a designated space with funding of a hybrid model with time to participate bult into their schedule without being a formal part of curriculum. Students are interested in being members of a medical LC at UNMC.

In comparing the two cohorts, both agree that advising, coaching, mentoring, and peer mentoring are important aspects of a medical LC within a hybrid model as evidenced by no significant difference between median responses. There is also agreement in members including clinical faculty, residents, and all years of medical school, with differing opinions about incorporating basic science faculty. Both cohorts also agree on being interested in a medical LC at UNMC with potential of meeting needs that were identified as not being met in other ways. There is disagreement on how participation time should be decided.

Conclusion

This needs assessment can be utilized in future implementation of a medial learning community (LC) at UNMC. Both cohorts identified key aspects of membership, funding, time, and goals that can help guide design. It is also important to note that both focus groups felt strongly that "buy-in" from the university was important to LC success.

This study had a low student response rate and was limited to faculty and students that had experienced a trial of a medical LC. In the future, this needs assessment could be provided to future classes as well as faculty to gauge interest and goals for implementing a new LC.

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