

Back to the Future: What Learning Communities Offer to Medical Education

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ABSTRACT: Learning communities (LCs) have increasingly been incorporated into undergraduate medical education at a number of medical schools in the United States over the past decade. In an Association of Medical Colleges survey of 140 medical schools, 102 schools indicated that they had LC (described as *colleges* or mentorship groups; <https://www.aamc.org/initiatives/cir/425510/19a.html>). LCs share an overarching principle of establishing longitudinal relationships with students and faculty, but differ in the emphasis on specific components that may include curriculum delivery, advising/mentoring, student wellness, and community. The creation of LCs requires institutional commitment to reorganize educational processes to become more student centered. LCs are beginning to show positive outcomes for students including benefits related to clinical skills development, advising, and student wellness, in addition to positive outcomes for LC faculty.

KEYWORDS: learning community, mentoring, advising, professional development

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Background

Dividing student groups into smaller units to enhance engagement in learning has its origin in the British House system (popularized in the fiction Harry Potter series) and was brought to U.S. universities in the 1920s by Dewey.¹ In 1986, learning communities (LCs) were then first defined by Chavis et al, “as a group of members who share common values and beliefs- and actively engage in learning together.”² Boyer later described the core principles of *community* at colleges and universities as follows: purposeful, open, just, disciplined, caring, and celebrative.³ These principles have also been applied to medical schools where LCs have been established and longitudinal faculty–student relationships form. Through this intentional community, the faculty and students become dedicated to a set of shared goals, principles, and values, promoting caring, trust, and teamwork.^{4,5}

Although a 2014 Association of American Medical Colleges (AAMC) survey identified 102 medical schools with *colleges* or mentoring groups, a recent survey of medical schools that specifically queried if the school had LCs identified 66 AAMC schools with LCs and of the 60 surveyed schools without them, 29 were considering creating one at their institution.⁶ While the broader definition in the AAMC survey (including *mentoring groups* as an LC) may account for the discrepancy in the numbers between these

two surveys, both surveys indicate a considerable increase from the 18 LCs identified in the landmark publication by Ferguson et al.⁴

LCs growth in medical schools over the past decade results in part from the recognition of the decline in clinical skills teaching,⁷ the desire for education to focus on the professional identity formation of learners,⁸ and the recognition of the learning environments' influence on learners' development.⁹ The faculty–student relationship is felt to be a significant promoter of clinical skills development and student professional identity formation, and it may help mitigate the negative effect the hidden curriculum has on this identity.¹⁰

LCs provide students with a consistent longitudinal faculty mentor through the deliberate assignment of a faculty member they work with on a regular basis. This continuity relationship promotes the teaching of clinical skills, delivery of other curriculum, and the formation of a robust advising role. LC faculty members are carefully chosen as respected role models who are able to meaningfully connect with their students on a consistent basis, which can counter the negative effects of the medical school learning environments. In this way the LC model resembles the traditional apprenticeship model of medical school training of the past, but in a consistent and systematic way all students are provided a faculty mentor for guidance and support, unlike



the past when students had to seek out their mentors.¹¹ The purpose of this study is to provide a rationale for LCs as a paradigm in medical education and describe many benefits LCs have in supporting the professional identity formation of medical students.

LCs and Professional Development

Medical educators argue that supporting the development of the professional identity formation of medical students is a primary objective of medical education, and our educational strategies should be centered on this goal.^{8,12} Forming a professional identity in medical trainees entails exposing them to respected role model physicians, engaging in reflective activities, and establishing longitudinal faculty relationships. Such relationships foster the ability of students to face a variety of personal and academic challenges in medical school: adjusting to their new environment and expectations, dealing with new and privileged tasks, such as anatomic dissection, witnessing the end of life, and participating in a fast moving curriculum that takes place in complex clinical and nonclinical environments.¹³ Since the LC structure provides students with a longitudinal faculty mentor and offers a learning environment for students to reflect in small groups with the other students well known to them, LCs have the potential to provide the necessary scaffold for professional identity formation for medical students.

The LC movement creates new opportunities to enhance career advising in medical school. More than three quarters of LC schools in the survey by Smith et al reported that this was a focus area for their LCs.⁶ In contrast to traditional career advising with volunteer faculty meeting independently to assist students as needs arise, LC advising occurs within a community structure, purposefully designed to support the personal and professional growth of its members.¹⁴ Advisors and students form longitudinal relationships and come to know one another quite well through the multiple roles LC advisors may serve: as clinical teachers, role models, partners in community service, and participants in students' milestone events. This relationship is designed to last for the entire time that the student is in medical school, and in many cases continues after graduation.

Embedded within this matrix of meaningful relationships, LC career advising when coupled with curriculum delivery becomes transformed into a synergistic proactive and dynamic process. Through observing mentees clinical skills, strengths, and areas where they are challenged, along with a keen knowledge of mentees personal background and character, LC mentors are in a position to provide student-centered career advice. LC faculty appreciate the value of skillful advising and view this role as an important component of their careers. LC advisors often work together in faculty development or in sharing advising perspectives to develop skills, cocreate wisdom about best advising practices, and support each other in complex advising situations.¹⁵ While the focus of LCs is the students, through such collaborative work,

LC faculty report that they form their own LC of faculty. Medical students in LCs view committed faculty advisors as role models and often establish or enhance existing peer advising programs to complement faculty efforts.¹⁶ Since LC structures are built around small, longitudinal learning groups, LC advising may evolve into both an individual and small group experience, as faculty and their advisees engage in an ongoing, iterative dialog over the years of medical school.¹⁷

LCs instill a sense of wholeness to student life in medical school by helping students feel more connected to their institution, faculty, and peers and purposefully focusing on students' personal and professional growth.^{3,18} LCs foster close connections, vertical integration across classes, and various opportunities for leadership and service to peers and community.⁹ In comparison with a social group offering respite from academic demands, a medical school LC connects students and encourages them to work together to support each student's professional development.

In Boyer's vision, community begins in the classroom, forming relationships that extend over time and beyond the classroom, enhancing a student's sense of belonging; and informal and extracurricular activities provide an opportunity to reinforce curricular messages of professionalism and service.³ Students and faculty are able to connect outside the classroom in some LCs through community service such as volunteering together in a free clinic. Students may also support each other with near peer advising that is facilitated through the LC structure.

A major role of LCs in half of the medical schools responding to the survey by Smith et al is to serve an explicit curricular function, usually delivering of aspects of the *doctoring* curriculum. The curricular elements taught in the context of the LCs may include clinical skills training, including interviewing and communication skills, physical examination skills, and clinical reasoning, as well as elements of the curriculum related to professionalism and professional identity formation.⁶ Much of what LCs teach lies at the intersection between the formal curriculum, the informal or *on the fly* curriculum, and the hidden curriculum of what we actually do, rather than what we say.⁹ The careful attention of learning community faculty on role modeling and the emphasis on transparency and reflective practice serves to teach not only specific skills but also to focus attention on the essential elements and behaviors of *physicianhood* and to help students decipher and reflect upon what they actually see in clinical practice. The incorporation of reflection into practice is essential to experiential learning and promotes self-direction and lifelong learning.¹⁹

A key feature of LCs relating to the professional development of students is the focus on medical students' wellness activities. The vast majority of medical schools with LCs identify enhancing student well-being as a central role of their LCs,^{6,20} which can be accomplished informally through social events and as a result of mentoring, or through an explicit wellness curriculum.²¹ Many of the current learning community



models were developed to enhance the learning environment for medical students by creating relationships between an individual student and their faculty mentor, and among the students within that learning community. This creates the possibility of holding sessions during the clinical years for students and faculty to discuss experiences that have challenged them, with the aim of promoting student resilience.^{22,23} The various elements of these relationships—mentoring and advising, social activities, peer support—as well as responsibility for elements of the *doctoring* curriculum all contribute to student well-being by decreasing isolation, increasing support, and providing opportunities for reflection as students form their professional identities. Therefore, LCs offer a framework for incorporating content that has been challenging to include into more conventional curricular structures, such as professionalism and student wellness.

LC Outcomes

While the early literature on LCs in medical education is descriptive,^{4,6} outcomes on LCs have not been as plentiful. In undergraduate college settings, LCs lead to deeper and more integrated student learning, greater civic contribution (student government and service learning participation), and increased retention.²⁴

The major pillars of learning community activity in undergraduate medical education—teaching, advising and mentoring, and student community—have some early outcomes. Students taught clinical skills by teachers who were also longitudinal mentors felt more comfortable at the start of their third-year clerkships in a broad range of examination skills compared with students not exposed to the LCs at the University of Washington.²⁵ A subsequent study demonstrated that an LC-based clinical skill program in the preclinical years improved a broad range of clinical skill scores during the third-year Internal Medicine clerkship.²⁶

The creation of longitudinal and continuous advisor–student relationships has led students to be better able to name their advisor, to have more frequent contact, and to perceive their advisors to be more accessible. Satisfaction with the advising program, compared with the prior system at Vanderbilt, showed a significant increase in student satisfaction with wellness and career counseling aspects of their program.²⁷

A close mentor–mentee relationship has been promoted as one way to affect the medical school learning environment and mitigate the effect of the hidden curriculum. While LC programs have developed tools to measure the learning environment, the success of these tools to ascertain the effect LCs have on the learning environment has yet to be determined broadly.²⁸ Promising early studies suggest that the erosion of empathy in the clinical years may be avoided through the use of a LC-based intervention, using a small group reflection, discussing the challenges that students face during their third year.²⁹ Depression, anxiety, and stress scores using standard instruments were lessened at St. Louis University,

where they developed a wellness program, of which LCs were a part.²³

While the focus of LCs is to improve the educational experience of learners, there are parallel benefits for faculty. Faculty teaching clinical skills perceived improvement in their own clinical skills^{30,31} and received higher teaching evaluations compared with historical controls.³² LC faculty also felt more engaged in their institution and more joy and satisfaction in their job, making them less likely to leave the institution.^{30,31}

Conclusion

LCs bring back the apprenticeship model of medical education using a more systematic and deliberate process as opposed to expecting each student to seek and find a faculty mentor as was the case of medical training in the previous century. LCs play a critical role in medical students' professional identity formation with the social and relational roles that LC faculty play using active role modeling, promoting reflection, longitudinal mentoring, and helping students reconcile the challenges they face in medical schools' formal and hidden curriculum. If LCs are carefully structured, they can help break down the *exclusionary* nature of the traditional medical profession by systematically providing all students with a faculty mentor and a small group of near peers with whom they can reflect as they navigate the challenges of medical school. The structure of LCs gives inherent support to students by incorporating explicit wellness functions, promoting a supportive environment for all students, and providing an important safety net given the high-risk medical students have for isolation, depression, and burnout.³³ Some outcomes are available and have been positive in medical school LCs, but more study is needed to determine *best practices* of LC models.

LCs have focused on longitudinal student–faculty connections and have not included longitudinal patient relationships in the pedagogy, as longitudinal integrated clerkships have done.³⁴ Given the important role patients play in the personal and professional development of medical trainees, a future consideration in LCs would be to broaden the continuity model to include patient–student–faculty in future LCs.³⁵ Calls for reform in medical education have included the benefits to having continuity with patients and preceptors, and studying the outcomes in this expanded LC model would be an innovative approach in medical education. Other future directions of study should include multi-institutional evaluations of LCs, assessments for *best practices* of LC models, and interprofessional education LCs. As we refashion health care, with relationship and teamwork as the foundation for the patient-centered medical home, we should consider a parallel framework, using relationship and LCs as the key ingredient in our student-centered learning community.

Author Contributions

Wrote the first draft of the manuscript: LGO, EG, DSH, KM, RS. Contributed to the writing of the manuscript: LGO,



EG, DSH, KM, RS. Jointly developed the structure and arguments for the paper: LGO, EG, DSH, KM, RS. Made critical revisions and approved the final version: LGO, EG, DSH, KM, RS. All authors reviewed and approved the final manuscript.

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