A Learning Specialist's Tips for Coordinating a Medical School Academic Support Program

Pamela A. H. DeVoe[1]

Corresponding author: Dr Pamela A. H. DeVoe pdevoe@salud.unm.edu
Institution: 1. University of New Mexico School of Medicine
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Abstract

Educating medical students is resource intensive, including substantial human, financial, and capital investment. When students experience academic difficulty, there are ramifications for faculty and staff, as well as personal stress and anxiety experienced by the struggling student. This article offers some lessons learned in the process of developing a medical school curriculum-wide system to support struggling students. This model for a comprehensive academic support program describes a formal structure for intervention beginning at new student orientation with the hope of preventing course failure and the complications of remediation. Some eight years ago, our medical school (400 students) embarked on this targeted consolidation and integration effort for academic support services. As implemented, Learning Specialists from the Office of Academic Resources & Support (OARS) meet with and coach students from all classes (MSI-MSIV) for medical school transition, learning and study skills training, both theoretical and clinical exam remediation, licensing exam preparation (US), curriculum schedule monitoring, personal issues, and research project coaching. Learning Specialists work closely with the Student Affairs and Assessment offices and initiatives, and participate in Curriculum and Block (course) Directors meetings. Despite a 25% increase in student matriculants six years ago, many with challenging personal and academic situations, we maintain an average 85% four to five-year graduation rate, which includes personal, academic, and enrichment activities. As a unit of Undergraduate Medical Education (UME), the academic support program has evolved and continues as a meaningful voice for student performance intervention.

Academic Support for Medical Students

Medical schools invest heavily in financial and human resources to educate medical students. When students experience academic difficulty, there are ramifications for faculty, staff, and other students, in addition to the personal stresses experienced by the struggling student. A comprehensive academic support program may offer the needed structure to intervene with students who fail within a course to prevent failure of the whole course, along with the complicated needs for remediation. All medical schools have course faculty to work with students on
learning content, and it’s likely that most medical schools have some kind of additional academic support effort for their struggling students (Paul, et al, 2009; Saks, et al, 2004). This article distills processes that emerged when our school developed an integrated academic support program. Our organizing theme was to consolidate and integrate across the medical curriculum a formal learning support effort to compliment the content teaching and coaching of course faculty. Our current effort includes learning to learn coaching, academic support and remediation for all courses and assessments over the four years, student research coordination and coaching, and peer tutoring for pre-clerkship students. Active in two office areas, Learning Specialists work closely with the school’s education infrastructure to share information and best practices in student academic support and development, monitor student performance, develop interventions and encourage integration across the medical curriculum.

Benefits of a formal academic support program within a graduate health science curriculum are that faculty and students alike have access and consulting potential with Learning Specialists trained in learning theory and practice. Basing the organizing process respectfully by focusing on the needs of students and inviting all stakeholders to the conversation makes program implementation more manageable.

From the perspective of a Learning Specialist academic support program director, this article offers some practical guidelines based on one school’s experiences in establishing a comprehensive medical school academic support program.

- Integrate the academic support project with the whole medical curriculum. This necessitates and encourages buy-in from medical school faculty, administration, and relevant staff. For instance, the education and student affairs deans, course directors, curriculum committee, and clerkship directors, and any staff working directly with student support. These stakeholders can together negotiate a comfortable joint effort in identifying, remediating, supporting, and reporting student academic interventions. Identify the gaps in your academic support efforts so that there are clear needs that the program will address.

- Utilize Learning Specialists who’s work parallels the course curriculum, and allows for tracking students through the full range of courses and assessments. The role of learning process experts is to ascertain the major causes of current academic difficulty—whether understanding content, study process or testing skills, or personal non-academic related issues. For Learning Specialists, we found training in education and learning principles as well as teaching experience were essential, training and/or experience in personal counseling is also helpful. Master’s degree training is good, although doctoral level training in an education or counseling field may be optimal, as would experience working with graduate health science students and curriculum.

- Guide your Learning Specialists to base their counseling and coaching interventions in cognitive science and learning theory. Learning and study techniques aligned with current cognitive science are not usually the way most students learned or studied prior to medical school. It requires some finesse to convince new medical students to alter their massed study methods with the proven but time-consuming distributed and multiple content methods endorsed by learning theory (Brown, et al, 2014). To master concepts within each course and importantly across courses, students need to develop knowledge self-assessment skills. Development of these skills is not automatic and starts with early reflection on their study methods to recognize their lapses and
build capacity for deep understanding and integrated applied knowing. Learning Specialists can help lay the foundation as well as coach students toward more effective learning strategies through individual, non-threatening, problem-solving meetings.

- Build and maintain your academic support and education program for a relationship with all students, not just those who struggle academically. Include all students in presentations during new student orientation, and various learning strategy and test taking workshops. Know your students, their backgrounds generally, history, and personal home and family responsibilities. Offer additional services from the academic support center besides academic counseling. For example, a library of course textbooks and licensing exam review books for students to check out; assistance with required research (research question conceptualization, literature review, statistical analysis); computers and printer for student use, counseling, general advising and coaching for the range of assessments.

- Address the reality of stigma attached to the need for academic assistance. While high scoring students seem comfortable with the occasional help seeking, students who struggle with the medical curriculum often find it very difficult to ask for help because of a fear of exposure. When students with lower self-efficacy for studying medicine actually attain lower scores on exams, it may trigger an overwhelming fear of failure, imposter syndrome, or stereotype threat, any of which can compromise the student's ability to implement change in their study habits. At our school, we attempt to overcome this issue by offering a variety of services and educational opportunities so that any student, regardless of academic performance, may be found in our office on business unique to them. While not entirely successful, the practice as promoted by Learning Specialists, faculty, and students seems to make a difference.

- Coordinate efforts with the course content experts, usually course faculty and sometimes upper class student near-peer tutors. Learning Specialists can help students discern whether their academic difficulties are more content or process related. Often students report understanding the material presented, but struggle with deepening this recognition level of understanding to a deeper application level. To accomplish this, students must manipulate the new material by writing distilled concept notes, charting, listing/bullet pointing, mapping, or drawing, and when possible verbally articulating and explaining concepts. Completing practice test questions is a proven way to identify specific learning issues. Building a relationship with course faculty makes it more likely that faculty will refer students to academic support services, communicate their concerns, and provide timely course information (syllabi, schedule) to Learning Specialists.

- Focus your academic support interventions for relevancy to your particular students. Decide what specific services would serve your students best. For example: test taking practices, study skills, course content peer tutoring, assessment of disability identification, personal counseling, time management, problem solving, how to utilize course learning objectives in study organization, clinical skills remediation, professional licensing exam preparation. Consider interventions appropriate to both pre-clerkship and clinical training difficulties. Professional licensing exams cover both basic and clinical science, and although using different instructional designs, the training is interconnected and cumulative. A comprehensive academic support program
complements the comprehensiveness of the curriculum.

- Base interventions on student performance in medical school (DeVoe, et al, 2007). While there are reliable pre-medical markers that suggest potential for academic difficulty in medical school, evidence suggests that students are more open to intervention after a poor medical school assessment. A major intervention is coming to agreement on the reasons for poor performance, identifying changes that can be made to learning processes, and whether additional content or personal counseling might be appropriate.

- Initiate contact with students directly after a failed assessment. Medical school can be such an all-encompassing stressor that students will often want to move ahead to prepare for the next assessment rather than analyze problems that lead to a failed assessment, often believing their study methods are working but that they just need to devote more time using similar study practices. Learning Specialists must have access to grades, immediately when faculty and students do. If students are contacted by Learning Specialists right after receiving a failing grade, there is more chance of connecting with the student because their attention and interest is piqued. Additionally, interventions are less effective when taught over one or a few encounters. It is over time as trust develops that students are willing to forgo some of their ineffective but known learning habits in favor of strategies that will work better in medical school. Contacting the student directly for a mandatory meeting, admittedly takes the decision making away from students, but facilitates the help needed to address their study issues rather than allowing the student to ignore early warning signs of academic difficulty. Often the communication becomes an email exchange, which can also be useful, and more private. Naturally, in whatever format intervention is delivered, it remains for each student to implement the study guidance.

- Consider coordinating a student (MS II) near-peer tutor program for MS I students. Tutors can be recruited, hired, trained and supervised by Learning Specialists. MSII tutors can organize a "study and learning orientation" at the beginning of each course, provide course study guides and generally mentor MSI students, as well as regular content tutoring, coaching and review. Tutors may be paid or volunteer. Benefits for tutors are as great or more so than for tutees. The practice of organizing review sessions helps MS II students consolidate their own understanding and may develop teaching skills, very useful in graduate training. Many students will not take advantage of peer tutors but those who do may increase their content understanding and scores, as well as smooth the transition to medical school. This is another "neutral" service coordinated through the academic support center, as near-peer tutoring is not necessarily contingent on low performance, rather it is a tool for students to avoid low scoring.

- Establish a routine of program evaluation; evidence of effectiveness for individual student interventions as well as effectiveness of the program as a whole. Subsequent exam scores are the usual measure of success for academic interventions. Additional potential data points include: number of students seen by Learning Specialists, student knowledge of services, usage and satisfaction surveys, and faculty knowledge of services, usage and satisfaction surveys, to name a few options.
Conclusion

Many medical schools have implemented formal academic support programs to address student needs for guidance through the medical curriculum. The culture and climate of medical, and other graduate health science education programs, provide a combined situation of constricted faculty time due to research and/or clinical and teaching obligations and variable student needs due to insufficient academic preparation, learning process miss-alignment, or other personal factors (Maize, et al., 2010; Mcloughlin, (2009)). When the impetus for an academic support program arises naturally among the various stakeholders, the shared concern creates space for honest conversation and the potential for innovation.

Take Home Messages

Benefits of a formal academic support program within a graduate health science curriculum are that faculty and students alike have access and consulting potential with Learning Specialists trained in learning theory and practice.

Formal academic support programs in medical schools can enhance the learning environment for both faculty and students.

Institutional collaboration in support of student success adds value to the training process.

Notes On Contributors

Pamela Houghton DeVoe, PhD, MA, is Director of the University of New Mexico, School of Medicine Office of Academic Resources & Support (OARS)/ Undergraduate Medical Education. As an educational psychologist, she has worked in medical and health science graduate student development for over twenty years. Research interests include learning in medical school, self-efficacy and self-regulation for learners, learning environment, and program development.

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### Appendices

### Declaration of Interest

*The author has declared that there are no conflicts of interest.*