

Restoring Ophthalmology to the Mainstream Medical School Curriculum

Linda S.M. Lippa, MD^{1*}

¹Director of Ophthalmology Education, The Gavin Herbert Eye Institute, University of California, Irvine, CA

*Corresponding Author & e-mail: llippa@uci.edu

Over the past four decades, academic ophthalmologists have become increasingly segregated from mainstream medicine in the microcosms of their Eye Institutes and outpatient clinics. Concurrently, representation of Ophthalmology in the core curriculum of U.S. medical schools has steadily dwindled [1]. The 2007 Association of American Medical Colleges (AAMC) curriculum management database (“CurrMit”) corroborates the results of a 2004 survey by the Association of University Professors of Ophthalmology (AUPO) (Haik, Hardy & Lippa, unpublished data): only eight US medical schools still required clinical rotations in Ophthalmology. Although 100% of schools offer an ophthalmology elective, only approximately 25% of students take advantage of the opportunity to enroll [1; Lippa, in press].

As it stands, I believe that we are at risk of graduating a generation of non-ophthalmic physicians (i.e., family doctors, internists, emergency physicians, pediatricians, neurologists, and neurosurgeons) who may be oblivious to “red flag” ocular physical findings relevant to their practice of medicine. The result is not only late detection of eye disease, but also missed clues for the appropriate diagnosis and treatment of

systemic illness as well. Multiple calls for reform have peppered the ophthalmic literature over this period [2-8], but until recently no tangible progress had been made.

I was privileged to organize a symposium on Medical Education Reform at the 2006 annual AUPO meeting, during which the panel identified actionable items to effect real change. The goals were to: 1) restore respect for medical student educators; 2) provide a forum to foster collaborative rather than isolated efforts to bolster ophthalmology representation in the medical school curricula; and, 3) enlist the backing of an official group to formalize and legitimize this advocacy in the eyes of skeptical curriculum committees.

The 2006 AUPO symposium proved to be a watershed moment. The first outcome was the creation of an AUPO Medical Education Task Force, which produced a practical list of basic core knowledge and skills deemed critical for the generic medical school graduate, one that could serve as a national standard. The recommendations were officially endorsed by the AUPO Board in the fall of 2007 and unanimously by the Board of Trustees of the American Academy of Ophthalmology in November, 2008. A list-serve of educators from the US and Canada was initiated and based at the University of Iowa. Under the auspices of the AUPO, the Consortium of Medical Student Educators (CMSE) was created, holding its inaugural meeting at the 2007 Annual Meeting of the American Academy of Ophthalmology (AAO) in New Orleans. Out of that meeting, a website was born (www.cmse.ophed.com) to sustain activities between meetings. The website serves as a platform for sharing teaching materials, curriculum templates, and implementation strategies, as well as links to electronic resources and juried sites such as the AAMC MedEd-PORTAL. Further, it provides a mechanism by which medical student ophthalmology course directors and dedicated teachers can form collaborations for the development of on-line standardized patient cases, courses and share ideas for multi-center studies. In

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addition, outreach has been initiated to the Alliance for Clinical Education (ACE), a consortium of core clerkship directors, for support of the core standard.

A recent change in educational philosophy at the AAMC favors integrated interdisciplinary longitudinal curricula rather than the traditional “silo” approach of the sequential clinical specialty rotations. In this climate, I believe that it is unrealistic for us to expect a return to the old paradigm of “dedicated curricular time” for ophthalmology. Rather, our target should be to prove our relevance to *best practices of medicine* for all disciplines within the context of each and every relevant rotation on which our discipline could have impact. As students encounter the eye again and again during their clinical rotations, they will realize the importance of retaining ophthalmic knowledge and skills in their clinical armamentarium.

Representation in an integrated curriculum carries an inherent risk of “stealth attrition”. Therefore, a designated ophthalmologist with protected time is needed to develop, administer, and evaluate the impact of the embedded curricular elements and to advocate within the medical school curriculum committee to avert incremental erosion, hour by hour over time.

In addition to participating on curriculum committees, we need to increase our visibility outside the walls of the eye institutes in the schools of medicine. Led by the efforts of Rhee Fincher, MD, Vice Dean for Medical Affairs at Medical College of Georgia, academic medicine has developed criteria to recognize teaching as scholarship, in support of career advancement and promotion. Scholarship criteria include developing teaching portfolios and engaging in medical education research. Incorporation of ophthalmic components into multidisciplinary clinical skills portfolios could provide the very opportunity we need to broaden our impact. Collaboration should be sought to pursue robust interdisciplinary medical education research, pooling multiple site data to bolster statistical significance. We can jointly develop skills assessment tools, and cumulatively track effects of curricular change over entire classes. Such outcomes tools and research also support the institution in re-accreditation by the Liaison Committee on Medical Education (LCME), incentivizing deans’ support.

Faculty development among our non-ophthalmic colleagues is critical to our success. We cannot expect that lessons taught in the isolation of a single eye clinic rotation, or even multiple rotations, will be retained in daily practice unless they are reinforced by our generalist colleagues in subsequent rotations. I have found primary care faculty highly receptive to (in fact enthusiastic about) eye examination skills

“refresher” workshops. Increasing non-ophthalmic faculty comfort levels with these skills, and highlighting the value of applicable ophthalmic knowledge and skills to their own practices can help to model those practices to students. A further result is raised expectations by those faculty for retention and application of that knowledge and those skills by students in their clerkships.

There are some considerable impediments to faculty participation in the teaching of ophthalmology to medical students: most critically, limited time, perceived lack of prioritization, and lack of funding. Clinical faculty also have residents and fellows to teach, and clinics to supervise, and as reimbursements drop, feel increasing pressure for more clinical throughput in their practices to support salaries. Though in theory, money is intended to support medical student education, many departments in fact simply do not allocate funds for teaching. And yet, we need to proactively support the infrastructure of our profession: our future referral sources - the medical students, and in the future, also nurse practitioner students - who are within our purview. These students, as well as non-ophthalmology residents and faculty, must be educated regarding the differences between Ophthalmology and Optometry, and they need to be sensitized to detect ocular disease and ocular harbingers of physical ailments, so they learn to appropriately triage patients and seek timely consultations.

How can we accomplish this? Researchers build salary support into their grants. Clinicians must be awarded the equivalent of relative value units (RVUs) to validate protected time spent teaching. Some full time equivalents (FTEs) should be reserved for teaching. I believe that a *minimum* of a ten percent FTE, either shared, or dedicated to one course-master, should be allocated to each department and actually used for medical student education. In these challenging times with tight academic budgets, we may need to seek the help of the university advancement office to help fund-raise for an endowed “teaching chair”. We could consider pursuing help from the private non-profit sector. Given that there are limited existing granting agencies or foundations to support medical education, one possible option would be to establish a foundation, modeled on other ophthalmic foundations. One strategy would involve engaging celebrity spokespersons, to publicize our efforts, and to initiate and sustain fund-raising for financial support of our teaching mission. Perhaps we could call upon the prestige and experience of the AAO and AUPO for guidance.

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With creativity and dedication, we can turn this new interdisciplinary education paradigm to our advantage and re-establish the value of ophthalmology as a vital component to the practice of mainstream medicine.

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