

## **IS THERE AN IDENTITY CRISIS IN OPTOMETRY?**

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Not long ago I attended an educational seminar designed for optometrists in general practice. The speakers presented eight hours of lecture and information, all ostensibly intended to update the clinical capabilities and enhance patient care skills to the audience of optometrists. Each speaker demonstrated commendable levels of knowledge and familiarity with their particular topic of discussion: these included the most recent advances in refractive surgical procedures and the design and application of new aphakic lens implants. A review of current glaucoma medications was given, as well as a discussion of useful antimicrobial pharmaceuticals and related agents. Throughout the presentations both local and systemic implications of the various products were emphasized, as applicable. Given the increased scope of health care responsibility that optometry has assumed, the value of the information presented during the seminar was indisputable.

However, about halfway through the day several themes gradually became increasingly evident to me. This subliminal trend persisted, until by the conclusion of the last hour I was left with the unavoidable realization that I had heard a great deal about the most current medical practices available for the human eye, but nothing about vision or anything concerning vision care. Moreover, among the dozens of studies, papers, research articles, and clinical projects that had been referred to or cited by the various speakers, not one iota of information had been generated by an optometrist, or had originated in an optometric institution. By the end of the day we had been regaled about the benefits optometrists might render to patients by using various products that had been discovered by others. We had been encouraged to refer certain patients for surgical regimens that would be performed by others, in return for which optometrists would then be minimally included under the umbrella of co-management.

Upon leaving the seminar and during my drive home, I mulled over these noisome realities. I recognized further that this tendency to emphasize the accomplishments and directives of other professional investigators had permeated virtually every optometric seminar and continuing education assembly designed for general optometric practitioners that I had attended over the past several years. That the modern-day optometric clinician must strive to be knowledgeable of medically related issues in order to remain competitive in our abilities to provide optimal care, particularly as determined by third-party reimbursement plans, is not in dispute. Nor is the point of this paper.

Flexner's report, (1) in 1910 to the Carnegie Foundation for the Advancement of Teaching still is considered the standard of how a profession is defined. Overriding all other implied criteria is Flexner's recognition of an organization's quest for identity. It was Flexner's opinion that only when a group of like-minded individuals banded together to select their own cohorts; educated these neophytes in a post-secondary environment according to a self-defined and regulated curriculum; defined their own standards of public service; practiced and enforced self-regulation; accepted responsibility for the activities of its members and was accountable to peer review and other criteria, could that group earn the right to be defined as a profession. Of particular note was the obligation to see out, generate, disseminate, and apply new knowledge. It is with regard to this last category that I find optometry, as a profession, most deficient.

As practiced today, vision care largely is predicated upon a host of hypothetical constructs. (2) When taken at its most simplistic level, ophthalmic compensation for an unacceptable refractive status often can provide the distressed patient with a large measure of relief and satisfaction. But, unless a substantial number of ancillary and supportive tests are taken by the clinician, no evaluation can be made regarding the stability or effectiveness of the patient's total vision system. Moreover, no clinical test in isolation is all that informative. From current perspectives, only when clinical data are compared within the framework of a rational model is it possible for the practitioner to construct a performance profile that can reflect how well an individual patient may perform visually. (3,4)

Even so, and despite the reality that the majority of clinical phorometric findings most often are obtained according to standard protocols, the interpretation of any single test, or series of tests, for that matter, is dependent upon the practitioner's preconceived notions of how the human vision system functions. Such impressions are founded largely on his or her training, professional biases, and imagination. To illustrate, I propose that there is no consensus as to the meaning of a lateral phoria; there is even less agreement regarding the etiology of such an entity. The same may be said regarding the end points of nearly all of the standard analytical tests taken during a routine clinical vision examination. Further, clinical findings can change over time, apparently in response to environmental demands or therapeutic administrations. Do such vacillations represent coping behaviors, or do they merely reflect fundamental and inherent physiological interactive potentials between the subsystems of accommodation and convergence?

Some insight can be realized if these clinical data are grouped into one of several recognized patterns or syndromes. But again, such a structuring is dependent upon certain assumptions and hypothetical constructs. The format by which data are arranged for inspection by the practitioner will depend significantly less on scientific validation than on the collective past clinical experience and accumulated anecdotal information that has been assimilated and formalized by certain inquiring minds. From such conceptualization has come the currently recognized modular constructs that clinicians can utilize when analyzing standard problems of binocular vision which are not otherwise compromised by intervening pathologies.

These models, however, and excluding none, are predicated on an exquisite body of clinical assumptions. (5) Yet, too often missing is the insight and understanding of what is being tested, the reasons how and why the patient is responding, the mechanisms that result in the data being generated, and the logic behind the therapeutic options and choices available to remedy the problem at hand. How many optometric practitioners, students or teachers of optometric clinical science, for that matter, could articulate the principles that underlie the model of vision care that they or their institutions espouse? But of greater importance, who could establish the unequivocal validity of the basic assumptions upon which such a model is constructed? Where is the experimental and scientific proof needed to define the individual and collective clinical tests that are taken, to ratify the syndromes that are in popular use today, and of most basic importance, to identify where and for what reasons the various test findings originate and change?

Before any of these issues can be addressed, however, the optometric community must recognize that much of its routine practice regimen does, indeed, rest upon hypothetical constructs. Not that this is altogether deplorable; apparently what is done has met with considerable success, if the enthusiastic acceptance of optometric care by the general public is any measure. But is shrewd guesswork a satisfactory basis upon which to build a profession? By assuming the trappings of medically oriented eye care we may add a certain luster to our professional image. Even so, the specter of clinical

assumptions and hypothetical constructs cannot be avoided. For instance, who can demonstrate with certainty the cause or origins of the glaucomatous conditions we now so often treat, or describe with certitude the pharmacokinetics of the steroid preparations that we apply so confidently.

The unacknowledged task, as I see it, is first to identify those clinical procedural assumptions and modular hypothetical constructs that we have so long taken for granted, as these apply to vision and the vision process. The various models of data analysis then should be codified, appended with the specific theoretical concepts that pertain to each expressly defined paradigm. In this manner the validity of each of the hypothetical constructs and clinical assumptions subsequently could be examined, as could be the analytical models currently in vogue. Predictably, some overlap and commonality will be found. Could a unified theory then be developed that would explain and clarify the functional bases of vision?

I submit there is some urgency to this issue. For one thing, the overall question of testing the validity and clinical interpretation of findings is long overdue. For another, optometry has within its background and history a legitimate claim to the study of vision and its attendant characteristics. Not to capitalize on this heritage would be to default the essence of our primary responsibilities to another profession. In that same vein, it is a matter of identity. Optometry has conceptualized an assimilated an immense body of hypothetical and practical knowledge concerning vision. The principles are available to be examined. If optometry does not assume this task, others will, and with a modicum of research could lay claim to much of what we have originated over the past one hundred years.

What I propose here is no simple matter. But the issue needs to be confronted. We have within our ranks the intellectual fortitude to pursue these questions with precision and sound scientific enterprise. It would then be possible to attend all optometric seminars and programs of continuing education that would include matters of vision care,

## References

1. Flexner A. Medical education in the United States and Canada: A report to the Carnegie Foundation for the Advancement of Teaching. Bulletin number four. Boston: DB Updike, Merrymount Press, 1910.
2. Franke AW. Introduction to optometric visual training. Santa Ana, Calif: Optometric Extension Program Foundation, Inc. Curriculum II 1988 Feb; 60(5):171.
3. Bartlett JD. Scholarship in Optometry. J Am Optom Assn 1989 May; 60(5):342.
4. Suchoff IB. On authoring. J Behav Opomt 1990; 1(2):29.
5. Scheiman M, Wick B. Clinical management of binocular vision, 2<sup>nd</sup> edition. Philadelphia: Lippincott Williams & Wilkins, 2002:53-97.