

GUEST EDITORIAL

CLINICAL RESEARCH

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What are the underpinnings of a clinical profession? And what determines whether that profession will continue to develop and thrive in a world of continuous and accelerating changes and demands?

The answer to these two questions appears to lie in our recognition of the importance of clinical research.

There never was a time that optometry needed this more than now. And there never was a time that clinical research was easier to implement. Today, with so many of us in possession of computers and linked to cyberspace, all we need is a little effort at the end of the day to start pooling our clinical findings and sharing our knowledge.

In all fields, educators are becoming increasingly aware of the impossibility of preparing students for successful lives and careers through an encapsulated period of formal education. What is now being realized in the accelerating world of change is that the learning experience is and has always been a life-long process. Whereas in former times we could succeed through convergent thinking and focusing on viable narrow fields, we now appear to rely more on divergent thinking. Survival in this mode may require thinking globally, but success still demands that we act locally in spite of wider fields and the dangers of overchoice, expanded possibilities and the overloading of our computers.

With so many new technologies changing to improve our understanding of brain structure and function, we are committed to focus flexibly and more accurately on how our patients function and behave within these constraints. This demands that we keep up-to-date with the changing scene and constantly ask ourselves the most searching and researching questions. Clinicians have a very important role to play in raising clinical questions, and educational and research centers need to be led and to lead through this relevant enquiry.

While there is a need for formal meetings of educators, scientists and clinicians to recognize and consolidate longer term progress, there is an equally important need to connect clinicians, educators and researchers on a daily basis.

Many present textbooks are replete with outdated data without recourse to current validation studies. An example of this is the myth that the nearpoint of convergence (NPC) does not recede with age. I carried out a simple research project in Taiwan recently to test this hypothesis. In a period of a week the collective data from 75 optometrists enrolled in a continuing education program at Chung Shan Medical and Dental College yielded 1500 measurements of the NPC across a wide spectrum of ages. An analysis of these data shows conclusively that in Taiwan, the NPC does, in fact, recede with age. This study showed that the NPC recedes most between the ages of 40 and 50 years and that thereafter it appears to improve again, albeit not to the extent of the preteen and teen years. Knowing what constitutes normative measures is crucial in assessing a patient's findings and it is therefore imperative that our profession begins to revise its normative data base and to do this as scientifically as possible. Practitioners can do much to feed this information into a collective pool. We know intuitively that 20/20 is no longer optimal visual acuity because of the power of our halogen lamp projectors and our ability to produce optimal contrast. This was something Snellen was not able to do with candlelight and fading letter charts.

My own research in the field of stereopsis¹⁻³ has shown just how much we need to revise our thinking and our measurements of this phenomenon. The vision care professions have focused their attention on only the superficial aspects of stereopsis and mainly as a test of strabismus. More detailed analysis, which takes no more than a few minutes to conduct, yields a gold mine of information about

the workings of the visual system and how this relates to age, brain function, work and scholastic potential, intelligence and sporting ability. The beauty of most of what we can do in the field of clinical research is the little time and effort it takes to derive very beneficial information in the interests of our patients and our profession.

Clinical research where clinicians, educators and researchers become equal and active partners seems to be the exciting and exclusive way for us to survive and thrive now and in the next millennium.

I am currently mounting an international study to gather standardized norms on different functions of stereoscopic acuity and speed of stereoscopic responses. Already, colleges of optometry in Italy, France, Spain, Germany, England and Belgium, as well as individuals in different countries around the world, have shown enthusiastic interest in this project. I am in the process of mounting interest from the schools and colleges and from individuals here in the United States. Readers are invited to cooperate in this macro study. Your participation will be most welcome. Please contact me for details of the protocol if you would like to be part of the research team.

References

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