

Will Podiatry Abandon Biomechanics?

A dermatology article is a warning alarm for DPMS.

BY PAUL KESSELMAN, DPM

The New York State Podiatric Medical Association (NYSPMA) held its annual Clinical Conference this past January. In addition to the usual workshops, didactic lectures and expansive exhibit hall, there were several non-CME lectures, which were quite informative.

One, entitled “What if it’s not On-

ity biomechanical factors and how one could predict toenail deformities.

Dr. Markinson questioned how this could have happened. Why was this opportunity lost on podiatry? His comments have also been shared in the past few years by many others regarding the reduced application of biomechanical principles by our profession, especially by new practitioners.

lower extremity biomechanics has been forever lost.

The NYSPMA Clinical Conference (NYSPMACC) had three lectures provided by Drs. Joseph D’Amico and Samantha Landau that specifically dealt with biomechanics. The issue of losing interest in biomechanics unfortunately has a recent history in our profession. Only a few years ago, this column discussed that at a past APMA meeting, less than 10% of attendees, with most being over 55, attended a symposium entitled “Advanced Biomechanics in the 21st Century”. This clearly illustrates a problem.

We can now add dermatologists to the growing list of medical providers who seek knowledge of biomechanics and are eager to clinically apply it in their daily practice. Dermatologists are not alone. The orthotics/prosthetics, physical therapy and pedorthists and chiropractic professions have been publishing many articles on clinical biomechanics. Their annual symposiums have a multitude of well-attended lectures on lower extremity biomechanics. Having participated at many of those meetings their attendance is to be admired

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ychomycosis?” was provided by Bryan Markinson, DPM, a thought leader in our profession in the field of lower extremity dermatology. Dr. Markinson’s lecture was particularly interesting and at its conclusion it evoked a warning alarm to this profession.

Dr. Markinson presented an article entitled, “The Asymmetric Gait Toenail Unit Sign”. This article, written by dermatologists and published in a dermatology journal over a decade ago, provides a classification system for toenail deformities based on biomechanical etiology. Dermatologists studied various lower extrem-

Loss of Biomechanical Interest, Loss of Competency

Previous columns have called on numerous aspects of podiatry leadership including: APMA, CPME and RRC, ACFAS, ABMSP, ABPM, APMA, the schools of podiatric medicine, orthotic laboratories, and others to develop some task force on why podiatry has lost its leadership position in lower extremity biomechanics and how to correct this continuing problem. To date, no task force has been formed; and based on Dr. Markinson’s comments, it may be that podiatry’s leadership in the field of

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and envied by every podiatrist. It is clear that many orthotic vendors at the NYSPMA CC and at other recent conferences are also seeing this trend with increasing business and referrals from non-podiatric providers. There are a multitude of pathologies which do not require surgical intervention. And those which do require the surgeon (no matter the professional degree of the surgeon) to have a clear understanding of the biomechanics of the lower extremity.

Dr. Donald Aronson, in 1978

casts produced by new residency graduates and their lack of understanding on how to write a proper orthotic prescription. Recent undergraduate podiatry students and their slightly older colleagues, recent residency graduates, often readily admit these same inadequacies.

After Dr. Markinson's lecture, several practitioners inquired where they could obtain more biomechanical training. As they put it, their training left them feeling wholly inadequate. This was especially true for more recent graduates. All emphasized that the recent advancements in

if any, input in this matter. The laboratories seem to have shifted their efforts to garner new clients from other medical providers rather than underwriting grants for externships, fellowships, and clinical rotations during school or residency training.

This column has covered this subject, only to receive numerous emails and posts on *PM News* attacking the contents of it. Most often these various parties simply defend their own position without suggesting solutions.

One can acknowledge there are many out there who are trying to solve the many issues addressed here. There are laboratories offering web-based forums, and a few of the schools are offering weekend didactic lectures. But this still falls short of the kind of hands-on workshops that are widely offered in the surgical realm.

This profession is in deep trouble if we lose biomechanics. It is no secret that patients *do* indeed have other options, with well-known shoe stores advertising \$1,000 orthotics. Recent *PM News* posts have dealt with nurse practitioners becoming certified in foot care. And yes, a nurse practitioner at the NYSPMA conference, after Dr. Markinson's lecture, did ask where she could obtain training in biomechanics. What are we to tell her?

We now must acknowledge that Dr. Markinson has found biomechanics as another rallying point to bring us together. The leadership of this profession must work diligently to retain our lost position as leaders in the field of biomechanics. Certainly, if we lose this (and some say we already have), what will distinguish us from others? **PM**

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at ICPM, said these words--which should never be forgotten--during his introductory class in biomechanics: "You should never operate on a patient's foot until you understand the biomechanics of his/her condition. And it will take you a minimum of five years to have a basic understanding of biomechanics."

How right he was. These tenets should be followed during one's clinical career and passed onto residents and students. But alas, this may no longer be the case.

It appears now that residents are no longer required to perform biomechanical exams pre-operatively. While on non-surgical rotations, they appear to *not* be required to perform biomechanical and gait analysis or to cast patients for orthotics. Casting and/or scanning has been deemed to be beneath them and is now delegated to the medical assistant.

By the time these residents graduate, it is possible that they have spent five or more years *away from* what was once the main domain of the podiatry profession. Who could blame them for their lack of training and understanding?

This inadequacy is not one person's opinion, but appears to be factual. Seasoned podiatrists hiring new associates have echoed these same sentiments. Many seasoned practitioners have been shocked by the

scanning, CAD/CAM, affordable gait analysis equipment, new theories beyond those of Merton Root, and new material sciences have far eclipsed what they were taught in the classroom. It is no wonder why so many feel the need for more education.

Solving (or Not Solving) the Problem

Certainly, listening to academics in a lecture hall is a good start, but it alone does not produce qualified biomechanists. Hands-on workshops are available but they are not on everyone's radar screen. Some very skilled practitioners are resistant to allow others to shadow them, while others are very gracious.

The first step in solving a problem is to address that one exists. In this case, the podiatry profession has a problem regarding the loss of interest in biomechanics. Because so much of our profession is compartmentalized, it is unclear as to who has the ability to and the responsibility for instituting the necessary changes.

The school faculties claim they do a great job in teaching the subject and the lack of follow-up may not be entirely their fault. The residency program directors say it is not their fault because they follow directives from CPME.

All the boards offering certification and APMA say they have little,



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