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CHANGING TRENDS IN ORTHOPAEDICS

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Musculoskeletal problems continue to represent a growing source of death and disability world-wide, particularly with the growing burden of disease associated with an aging population. Similarly, the potential areas for investigation within the field of orthopedics continue to grow, particularly as the basic and applied scientific knowledge and technology develop. More and more scientific publications are needed to disperse the newly acquired knowledge to the readers. To achieve this specific goal we start this publication with a humble beginning.

In this very first address, I wish to share my own personal observations. During the last 27 years which have passed since I have qualified as an orthopaedic specialist, I have noted several notable changes in the field of orthopaedic surgery. Most prominent among them are:

1. The trend from orthopaedic generalist to orthopaedics specialist;
2. The trend from complete musculoskeletal care to procedural care; and
3. The trend from a research-based specialty to a practice-based specialty.

There is no question that the trends which we have experienced toward specialization and procedural care have produced enormous benefits for patients, and most certainly for orthopaedic surgeons. But has the pendulum swung too far in this direction? It is my belief that one should be a good doctor first, a good orthopaedist

second, and an orthopaedic specialist third. In many ways, I think we have lost sight of our larger obligations as physicians who care for patients with musculoskeletal problems. This situation is now causing our specialty some problems. The trend away from a research-based specialty toward a practice-based specialty is even more disturbing, and has a potentially chilling effect upon the future advances in orthopaedic care.

Generalist Vs Specialist:

In US, the proportion of orthopaedic surgeons completing a specialty fellowship more than doubled in last few decades. More revealing is the fact that most of today's practicing orthopaedic surgeons under the age of 40 have completed formal fellowship training. The change from being a general Orthopaedic surgeon to Specialist Orthopaedic surgeon is a disturbing trend. Is this super specializing really needed or justified? Should this be a cause for concern or does it reflect the desirable maturation of our specialty?

More and more our residents are being taught by faculties who have done a fellowship in some special area. These faculties even though employed in a teaching medical college shy away from teaching other areas of the subject "orthopaedics" and try to function only as specialist teacher of that area alone. We need a greater emphasis on orthopaedic medicine and rehabilitation in our teaching programs.

Comprehensive care Vs Procedural Care:

As a result of sub-specialization, we have trended from comprehensive musculoskeletal care to more procedural care. The major disadvantage of this trend is to exaggerate the importance of surgical procedures to the totality of patient care and to diminish the importance and desirability of non-operative care and often to distance the doctor from the patient as a caring and involved physician. The procedure itself should not be the "be all" and "end all" for surgeon rather, it should represent an additional acquired skill to help people get well. Francis Peabody said it best: "An essential quality of the physician is humanity, for the secret of patient care is in caring for the patient" [1].

The American Society of Internal Medicine in late 1980's promoted the term "Cognitive physicians" for doctors in the specialties of internal medicine and referred to surgeons as "Proceduralists". The contrast emphasized their own value as "thinking doctors". Now, the internists have developed other terms for their own procedural colleagues in internal medicine, such as "interventional" cardiologists whom, we assume, are still "cognitive". But there is a message for us all in the unwelcome use of the word "Proceduralist" and the inference that orthopaedic surgeons and others in surgery lack cognitive or non-operative skills. If this perception is shared by general doctors, it certainly can adversely affect general population. Most patients with musculoskeletal complaints do not need an operation - they need diagnostic evaluation, non-operative care, or rehabilitation.

Charles V. Heck (1986)^[2] recognized the use of the term "Orthopaedic surgeon" as a problem. He recommended that the name of the specialty be changed from 'Orthopaedic surgery' to 'Orthopedics', and that its practitioners be referred to as 'Orthopaedists, not as 'Orthopaedic surgeons".

Joel Goldthwait (1933)^[3], commented that - *"In our special line of work, with the great interest in the operative side of the work, with the general indifference to the non-operative... one can but wonder if the basic ideals which justify our work have not been*

lost sight of. If we are to see only the operation... we cease to be true orthopaedic surgeons, but just surgeons doing bone and joint work". He also stated: *"The opportunity is great, and if we choose operative work only, which is the easier, instead of the harder and more general, some other specialty or school will take this over."*

Research emphasis Vs Practice emphasis:

The third trend, that of a decreasing emphasis on research is the most subtle trend, but one which has grave implications for the future of the specialty. There has been cause for alarm in the orthopaedic research. Some of the warning signals are as follows:

- 1) The award rate for orthopaedic scientists from the National Institutes of Health and the number of awards to orthopaedic surgeons as principal investigators has decreased ^[4].
- 2) The Kappa Delta awards were established in 1950 to recognize, each year, the most outstanding orthopaedic research investigators. The first recipient of this award was Dr. Marshall Urist. During the 20 years from 1950 to 1970, 88% of these awards were presented to orthopaedic surgeons as lead investigators. For the next 20 years, from 1971 to 1990, only 53% were given to orthopaedic surgeons and since 1990, only 48% of the awards made by the Kappa Delta Sorority were presented to orthopaedic surgeons.

Even our clinical outcomes research is being done by others - primarily by internists, epidemiologists and those in public health. The root causes of this trend away from research are probably several. Among them are certainly the increasing emphasis on clinical practice income by faculties of academic medical centers, and the lure of rupees which attracts orthopaedic residents and fellows to the world of private practice. Sources of funding for orthopaedic research have never been great and are becoming scarcer as the research budgets of academic health centers are non-existing or have been reduced.

To better realize the future for orthopaedics, I see two pathways—one

which is already being created by the market place in our changing health care delivery system. The second is one which we must create ourselves by changing the way we teach orthopaedics.

I believe there will be a gradual return of many practicing orthopaedic surgeons to primary musculoskeletal care, non-operative care and rehabilitation. This will occur because of the constraints being placed on the numbers of procedures we do by those who pay for health care. The economics of the new practice environment will gradually force more specialists into doing more primary care and more surgeons into doing more non-operative care.

Academic orthopaedic departments would do well to consider the post-graduate educational needs orthopaedic residency education program by increased emphasis on general orthopaedics, geriatrics and rehabilitation, as well as providing adequate pathways for research. As well, we need to teach the basics of outcomes research and other kinds of health services research at the residency level. I am suggesting that we need to return to our roots—in orthopaedic practice, as well as musculoskeletal research. If and when we do go back to the future, we will have more Campbells, Steindlers, Larsons, Ponsetis and Coopers—and that will be good for orthopaedics and for orthopaedic surgery.

References:

1. Peabody FW. The care of the patient. *Journal of the American Medical Association*. 1927;88:877-882.
2. Heck CV. The new style of medicine. *Journal of Bone and Joint Surgery*. (A) 1986;68:1-3. Editorial. [\[PubMed\]](#)
3. Goldthwait JE. The backgrounds and foregrounds of orthopaedics. *Journal of Bone and Joint Surgery*. 1933;15:279-301.
4. American Academy of Orthopaedic Surgeons. Building the future of orthopaedics: Strengthening orthopaedic research. Park Ridge IL: American Academy of Orthopaedic Surgeons; 1992.