

# Journal of Professional Exercise Physiology

ISSN 1550-963X

June 2014 Vol 12 No 6

**American Society of Exercise Physiologists**  
The Professional Organization of Exercise Physiologists

## **Exercise Medicine: Are We Missing Something?**

Tommy Boone, PhD, MPH, MAM, MBA  
Board Certified Exercise Physiologist

*We ourselves feel that what we are doing is just a drop in the ocean. But the ocean would be less because of that missing drop.*

*-- Mother Teresa*

**C**HRONIC DISEASE IS HERE TO STAY. Hardly anyone in the United States or elsewhere in the world is going to escape death and disability from chronic diseases. The world is redundant with heart disease, chronic obstructive pulmonary disease, cancer, stroke, osteoporosis, type 2 diabetes, cirrhosis of the liver, cystic fibrosis, meningitis, rheumatoid arthritis, and much more. Many people of all ages and gender suffer from several of these diseases at once! Clearly, life is a challenge that is driven by a mix of unknowns that increase the risk of early death.

Fortunately, many chronic diseases can be either prevented or improved upon by changing a person's lifestyle. A big part of that change includes understanding the importance of regular exercise. The scientific evidence demonstrating that exercise is medicine is indisputable. Then, too, the benefits of individualized exercise often help in reducing the side effects of medications. But, interestingly, the medical profession does not hire exercise physiologists as part of the healthcare team to prescribe exercise medicine? While the reason is complex, it is worth a brief analysis.

*The most extraordinary thing about trying to piece together the missing links in the evolutionary story is that when you do find a missing link and put it in the story, you suddenly need all these other missing links to connect to the new discovery. The gaps and questions actually increase - it's extraordinary.*

*-- David Attenborough*

To begin with, why would the medical profession hire someone who says he or she is an exercise physiologist when the resume indicates a degree in exercise science or health and sports science? Medical doctors understand that a degree in medicine is necessary to practice medicine. Lawyers understand that giving legal advice requires a law degree. The same is true for physical therapy, occupational therapy, nursing, and dozens of other professions. Can you imagine calling yourself an athletic trainer without a degree in athletic training?

But, if the medical community understood that the ASEP leadership supports their thinking by having developed a transitional opportunity to earning the title, exercise physiologist, shouldn't they reach out to the ASEP certified exercise physiologists as potential healthcare employees. The board certified exercise physiologist is "the" healthcare professional to prescribe exercise medicine. Why not hire ASEP exercise physiologists just as physical therapists, physician assistants, and nurses are hired to assist the doctor in helping patients with certain chronic diseases or disabilities?

The ASEP board certified exercise physiologists are held accountable to a code of ethics and standards of professional practice. They are responsible for evaluating the "physiology" of exercise related diseases and disabilities. With proper counseling and the individualized prescribed exercise program, improvements in fitness can produce

*That's what we're missing.  
We're missing argument.  
We're missing debate. We're  
missing colloquy. We're  
missing all sorts of things.  
Instead, we're accepting.*

*-- Studs Terkel*

mental and physical health benefits. The lowering of blood pressure and the improvement in lipoprotein profile along with the enhanced bone mass and decreased risk of falling are so important that exercise should be prescribed and led by a qualified healthcare professional. This point isn't complicated.

The idea that regular exercise has a positive influence on the functioning of the mind and body isn't new. It has been around for thousands of years. But, it has been only in the last 40 to 50 years that exercise physiologists have repeatedly confirmed and published their evidence-based work showing the positive links between exercise and medicine, exercise and health, and exercise and cognitive function. They are the healthcare leaders in exercise medicine even though the healthcare community is still slow to recognize it. Nonetheless, it is important to acknowledge that the profession of exercise physiology is an evidence-based healthcare profession.

Part of the recognition problem is related to the fact that many academic exercise physiologists are not presently supporting the ASEP organization. They may believe it is a good idea, but are reluctant to become members. There are numerous reasons for their slowness in supporting ASEP, but the most obvious is groupthink in which they strive for consensus within their departments. For most part, they have set aside their own personal beliefs and have adopted the opinion of the generic status quo. The ASEP leadership understands that change does not occur overnight. Moreover, the magnitude

of the work and new thinking that goes into seeing and living organizational growth and stability requires the willingness to think outside the box.

Organizational development, professionalism, and credibility are a function of the enormous costs of decades of work, agreement, disagreement, and compromise as well as the genuine interest in both the members of the profession and the welfare of the consumers. The discovery of new thinking and the development of different ways to deal with the complexity of surviving the change process are both similar in some ways to helping the public sector come to terms with the health implications of exercise medicine. With respect to the development of professionalism in exercise physiology, a plausible and single underlying verification of the ASEP consistency is the constant effort to promote a foundation of hope and career opportunity for the students of exercise physiology.

Ultimately, it will be the students of exercise physiology who will promote and use exercise medicine in their entrepreneurial healthcare practices. After all, exercise medicine prescribed by exercise physiologists is an important key to personal health and happiness. Here, the term “exercise medicine” refers to exercise that improves the client’s cardiorespiratory capacity to take in oxygen, transport it to the muscles, and use it at the cellular level to provide energy for muscle contraction. Naturally, exercise medicine improves the functional dynamics of the musculoskeletal system. Thus, the client’s level of muscular performance is improved. In addition to numerous other positive results that associate with exercise, the client’s mental health is improved.

To this end, it is obvious that although exercise has many benefits, the majority of the people (young and old) in the United States and throughout the world are living an inactive and sedentary lifestyle. So, what is missing in this picture of ongoing changes within the medical community, challenges among exercise physiologists, and the lifestyle issues of individuals of all ages? Clearly, there are effective strategies to improve healthcare by medical doctors. One step is to hire board certified exercise physiologists. Perhaps, exercise physiologists, who are the creators of much of the exercise medicine data needs to concentrate also on the professional development of exercise physiology. Adults, in particular, need to exercise and learn how to do so by contacting a board certified exercise physiologist.

There are other things that exercise physiologists must think about as well. For example, academic exercise physiologists often say that an undergraduate student who graduates with a “degree” in exercise physiology should not call him- or herself an

*If you think of exercise as a 60-minute commitment 3 times a week at the gym, you're missing the point completely. If you think that going on a diet has something to do with nutrition, you don't see the forest through the trees. It is a lifestyle. I know it sounds cliché, but you have to find things you love to do.*

*-- Brett Hoebel*

exercise physiologist. They argue that you need a doctorate degree to call yourself an exercise physiologist. That is why they have been instrumental in helping organizations create master-prepared “clinical” exercise physiologist’s certifications. Again, the certification was designed to avoid the use of the “exercise physiologist” title. When you consider all this, it is apparent that the bulk of the suffering students experience after they graduate from college is inflicted upon them by their faculty. This must be true if the undergraduate degree is meaningless (i.e., if it is not viewed as a career-linked academic major).

Are we missing something? What do you think? The thing about the topic of ethics and professionalism is that once you start writing about it, you see that essentially no one in exercise physiology is interested. This is very likely the case with the more established healthcare professions decades ago. Why not find time to go back and reread the history of physical therapy, nursing, or athletic training after what we know of these professions today? Of course, all professions are constantly evolving and, frankly, that is where exercise physiology is today. Remember the verse in the Bible, John 9:25, “I was blind but now I see” takes on a whole new meaning for exercise physiologists when the concepts of “professionalism” and a “profession-specific organization” sink in.

If most exercise physiologists were asked to name the top reasons exercise physiology exists today, they would probably agree on at least these three: fitness, athletics, and health. Fitness and athletics we more or less understand, but “health” is almost a lost reason. But, what about health and exercise – why the emphasis on both while seemingly the majority of the exercise physiologists are more interested in teaching students how to run faster, jump higher, and develop big muscles? What about the role of exercise in healthcare? What exactly do we mean when we say, exercise medicine? Why is exercise medicine so important among the sports medicine organizations? In my opinion, we are definitely missing something here. Out of the three most talked about and researched in exercise physiology, there seems to be an interest in primarily two of them.

***Exercise  
physiologists who  
are teaching just  
research and not  
teaching  
professionalism and  
exercise medicine  
are missing the  
message.***

As I see it, there is much work to be done in bringing forth the full message of exercise medicine by exercise physiologists. But, is that possible if exercise physiology has become subservient to physical therapy and other healthcare professions? Also, is it possible if we have not taken the time to consider exercise physiology as a healthcare profession and not just as a research discipline? What seems logical is this: when a significant number of exercise physiologists and students get the big picture and prepare accordingly, then, the healthcare professionals within the established ranks of everyday care for clients and patients of all ages with acute and chronic diseases and

disabilities will listen and gladly reach out to bring the exercise physiologists into the healthcare community of caregivers.

We can start by acknowledging that our society is in a new age of continuing failure in health and well-being. The inactivity, sedentary existence, obesity, diseases, and disabilities have reached extraordinary proportions. Yet, we are also in an age of increased knowledge where our leaders need to step up to the plate of responsibility. My point is that if exercise physiologists want to be leaders in prescribing exercise medicine, it is obvious they must be able to deal with power, politics, and greed of their colleagues and organizations. They must learn how to anticipate and deal with the uncertainty and unpredictability of the change process. They must also accept the responsibility of educating and engaging all exercise physiologists in the ASEP vision. This means talking about the importance of professionalism, the exercise physiologist's code of ethics, the profession-specific certification and academic accreditation, and the unique standards of practice for all exercise physiologists (from the undergraduate degree through the doctorate degree). In the end, it is the "little things" that are important even when they are seldom talked about.

*Everyone is trying to accomplish something big, not realizing that life is made up of little things.*

*-- Frank A. Clark*

## **Reference**

1. Boone, T. (2013). *Introduction to Exercise Physiology*. Burlington, MA: Jones and Bartlett Learning. <http://www.jblearning.com/catalog/9781449698188/>