Recognizing the Need to Think Differently
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Everything begins with a thought.
-- Ralph Waldo Emerson

Nurturing Thoughts and Why?

What one thing separates exercise physiologists from physical therapists? Why is physical therapy a recognized healthcare profession and exercise physiology is still struggling for professional recognition? The answer to both questions is “Their Thinking!” For decades, physical therapists realized the need to nurture their thoughts and why. Thinking as healthcare professionals and not as technicians in the early 1900s allowed them to rise to the status of a recognized “healthcare profession.” Occupational therapists did the same thing. They were also willing to think differently. The national organization for occupational therapy was created in March 1917 [1]. Look where they are today, which is true for nurses and dietitians.

Although learning how to think as a healthcare professional is the key to change and success, many exercise physiologists are still influenced by their old and comfortable thinking habits. This must be true because if academic exercise physiologists believed they were healthcare professionals, they would support the American Society of Exercise Physiologists (ASEP). Instead, it appears that they are thinking as college teachers who are only interested in research productivity, promotion, and tenure. They also think about the quality of their research publications in peer-reviewed journals, as judged by the impact factor [2]. They understand that the academic administrators use the system to judge the
quality of their work. After all, there is the ever-present publish or perish mentality in most academic settings. By contrast, as long as there is a minimum of complaints by their students, the quality of college teaching is of secondary importance.

Academic exercise physiologists are nurturing thoughts about one thing and only one thing and that is publishing research. It is the most important factor in getting promoted, tenured, and recognized in the scientific community. Everything else is a distraction, including teaching, and especially advising and helping students. Forget about the ASEP perspective regarding thinking as a healthcare professional and/or engaging in professional service responsibilities, and especially having to think or write an article about exercise physiology professionalism. Simply stated, the goal of academic exercise physiologists is to become recognized as a big time expert in exercise physiology research. This means that everything is centered on publishing scholarly papers [3]. By default, the process itself is so time-consuming and self-centered that there is not the expectation to think differently.

**The Truth Is This!**

Research alone will not change exercise physiology from a discipline to a healthcare profession. The research by academic exercise physiologists will not stop the public from thinking about exercise physiologists and similar academic degrees (e.g., kinesiology, exercise science, sports science, human performance, etc.) as personal trainers! Think about it. Are college teachers really interested in graduating students as personal trainers? As things are today, the answer is “yes” and yet other healthcare professionals look down upon those in these fields and do not take them seriously. Actually, it makes sense to me that an exercise physiologist should not have the desire to be a personal trainer. But, until the college teachers responsible for teaching exercise physiology, cardiovascular physiology, exercise prescription, electrocardiography, and cardiac rehabilitation start thinking differently, their students will continue to end up on the low end of job opportunities in healthcare. Personal trainers do not constitute a profession. Fitness instructors and exercise specialists are not members of a profession.
Moreover, the term “exercise professional” is an excellent indication of the frustration graduates of exercise science feel after earning a 4-year degree. Again, it only takes a little thinking to realize that the term is as meaningless as the dozens of degree plans. “Generic” is an excellent beginning point. But, the real problem is the identification of anyone and everyone as trainers, regardless of whether the person has a credible college education, the type of degree program and/or appropriate hands-on laboratory experience, and/or a meaningful, credible, and professional-oriented certification. Instead of thinking as members of the profession of exercise physiology, the academic exercise physiologists’ behavior actually supports the existence of 40 or more similar degree programs and 100s of generic certifications that do little to help college graduates. In fact, it is a slap in their face and that of their parents. Clearly, choices students make early in life are having a long-lasting impact and many fail to recover financially and emotionally. Majoring in exercise science and related degree programs has left graduates wondering whether the college degree was worth it, especially when they find themselves working as a restaurant server, bartender, or retail clerk to offset college loans.

Albert Einstein observed, “The problems we face today cannot be solved on the same level of thinking we were at when we created them.” Take a moment to look at the undergraduate degrees that are meaningless, meaning simply this: students graduate and find out that their financial investment is all they have. Human performance, sports science, and the dozens of different combinations of degree plans that represent bad thinking are too common throughout the United States. It is as though the thinking of the 60s, 70s, 80, and 90s that resulted from the academic fallout of bad graduate programs in physical education simply spread throughout academia like a deadly virus. As a result, where do you find students who want to major in exercise physiology? Unfortunately, 99% of the time you find them in Departments of Health, Kinesiology, and Exercise Science where doctorate students earn an exercise science degree (or even kinesiology with a minor in exercise physiology)!

Most doctorate students are not even aware of the failure of the academic setting to do what is ethically responsible. The academic exercise physiologists and the other faculty of

Recent news showed that student loan burden now exceeds $1 trillion in the United States.
these programs are completely in the dark. They think that everything is just great. When asked the question, “Could a person earn a doctorate degree in physical therapy while majoring in education with a concentration in physical therapy?” Of course not but while the answer is obvious regarding physical therapy, it isn’t obvious with exercise physiology. Why? Because the academic exercise physiologists have not put in the effort to change their thinking and beliefs. Yes, research is important. But, exercise physiology is more than just research. There are other important dimensions that must be dealt with as well, especially that of professionalism and credibility.

Hence, the question: Shouldn’t a doctorate degree in exercise physiology be offered from within an exercise physiology department? Actually, the answer is obvious, that is, if you are willing to believe it is possible. Physical therapists have their own department. Their expectations impact their attitudes about academia and what is required of them to educate physical therapy professionals. Exercise physiologists do not have their own departments because they have not changed their thinking. They still see themselves as physical educators looking for recognition as “scientists” through their research. Yet, the truth is that publishing research isn’t enough. Years of indoctrination otherwise keeps them from thinking differently. So, they spend all their time in research projects that ultimately takes away from spending time from the big-picture that brings the professional perspective to “what is exercise physiology?”

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**Big-Picture Thinking**

Without big-picture thinking, students of the look-alike exercise physiology majors will find themselves as fitness instructors or trainers. They will work alongside individuals who did not go to college but instead obtained a trainer certification. They are not going to engage their clients, patients, and athletes in the discussion of oxygen consumption and its central and/or peripheral limitations? In fact, they will not understand much less talk about the training effects of aerobic activity on cardiac output, stroke volume, and arteriovenous oxygen difference. Forget about the discussion of double product and its relationship to myocardial oxygen consumption or one of several dozen physiological measurements to
understand how the body works and why certain types of training programs are better than others? Discussion of the origin, insertion, and function of the shoulder flexors and the nerves of the brachial plexus that contribute to the action will not take place.

Until exercise physiologists learn how to see the big-picture of exercise physiologists as healthcare professionals, much of the students’ exercise physiology education will remain at school. Until the students listen intentionally, they are not likely to be aware that professionals have a code of ethics, a credible certification and/or licensure, academic accreditation, and standards of practice. Until everyone interested in exercise physiology learn to ask the right questions and to get outside of themselves and their immediate interests, they will not see the big-picture of exercise physiology or understand the need for professionalism in exercise physiology. For these reasons and others, thousands of college students will continue to spend tuition dollars on meaningless degree programs to find themselves after graduation completing an application to graduate school. This is so obvious that the department chairs make sure the following quote is on their department websites: “Exercise science is the appropriate degree for students interested in continuing their education in physical therapy, occupational therapy or nursing.”

Therefore, their failure to think differently, to lead effectively, and to see the vision of changing exercise science (and related degree programs) to exercise physiology is problematic. Therefore, the undergraduate degree is not a career-oriented education. Also, the false portrait of exercise science being the equivalent of exercise physiology leads only to discouragement when the students actually try to get themselves back on track by sitting for the EPC exam. Not being academically prepared, however, they fail the exam not once but several times.

Graduating from college with $30,000 to $60,000 in tuition loans is not a good idea when the opportunity for a credible career is described as: “This degree program prepares Exercise Science practitioners to work in fitness centers and other settings which provide physical fitness enhancement programs for clients and patients.” Really, do you mean that students are paying a lot of money for a college degree that isn’t even necessary to work in

The world was built by people who “crossed bridges” in their minds long before anyone else did.  
-- John C. Maxwell
fitness centers? The academic-types must look beyond themselves, their own interests, and look at the big-picture.

Let’s face it: an undergraduate degree should be necessary for employment in certain fields of work. It should also help ensure that the graduates have not wasted their money only to find themselves in debt and jobless. Becoming successful after college is linked to the relevance, integrity, and strategic thinking that is at the core of what it means to speak of a credible academic major. Exercise physiology is a combination of subject matter that can enhance the quality of people’s lives. While this point may seem obvious to most people, it is true only when exercise physiologists are thinking beyond yesterday’s rhetoric that is driven by decades of an attitude and a mind-set that benefits college teachers but not the students. Publishing more and more research papers in sports medicine and exercise science journals helps to empower organizations and individuals. Neither the leaders of the organizations nor the faculty get this point because their minds appear to be closed to the purpose of a college degree. Such failure to think differently does not help the students who must borrow even more money to apply to graduate school in hopes of finding a job that pays well.

The ASEP Organization: Challenging Popular Thinking

Since the founding of ASEP in 1997, many shocking things have been said about the efforts of those who are working on behalf of the “profession” of exercise physiology via the ASEP organization. One college teacher said, “If exercise science should have been exercise physiology, the ACSM officials would have made it so.” As you can imagine, the comment makes no sense whatsoever. Such small thinking is everywhere. Similarly, another doctorate prepared exercise physiologists said, “You should not be encouraging your undergraduates to think they will be exercise physiologists when they graduate from St. Scholastica.” Stunned by what she said I asked, “Why is that? You do know that the students are getting a degree “Exercise Physiology.”” She said, “I didn’t go to school for 5

Who chooses the future? Those who dream the future choose the future. You can’t predict the future, but you can invent it.

-- Jerry Pournelle
years to get my PhD in exercise physiology to think that they can also call themselves an Exercise Physiologist with an undergraduate degree.”

One of the many challenges to accrediting the undergraduate exercise physiology major is the fact that the doctorate faculty feels threatened? While it is popular among doctorate exercise physiologists to think that they are “physiologist,” they are not and it should be obvious. Unless a person has a degree in physiology per se, that person should not refer to him- or herself as a physiologist. Many people look for something they are not in popular thinking. They figure that if other exercise physiologists are doing it, then, it must be right. It must be a good idea because others look at me in a special way when I tell them I am a physiologist. If most people accept it, it must be true, right? No!

It is not uncommon to hear exercise physiologists state that the American College of Sports Medicine is their professional organization, yet it cannot be true. That is like physical therapists saying that ACSM is their professional organization and not the APTA. Saying it does not make it true. Donald M. Nelson said, “We must discard the idea that past routine, past ways of doing things are probably the best ways. On the contrary, we must assume that there is probably a better way to do almost everything. We must stop assuming that a thing which has never been done before probably cannot be done at all.”

Exercise physiologists limit themselves when they agree with popular thinking.

John C. Maxwell [4] said, “Challenging popular thinking requires a willingness to be unpopular and go outside of the norm.” Without question, the ASEP organization is outside of the norm, but it is right and it does not limit the students of exercise physiology or the profession of exercise physiology. So, why not stop the automatic following of thinking that is 60+ years old? Why not get past the fear of rejection or the notion that everyone else is doing it so it must be right? The sports medicine and exercise science way of doing things is not the exercise physiologist’s way to success. It is all about swimming against the current of everyday thinking, asking questions, and trying out new ideas.

Recognizing the need to think differently begins the process of change. For those who are willing to stay the course, more often than not it is because they are passionate about
providing for and serving the students of exercise physiology. They think that students who graduate from an accredited exercise physiology program will have a better chance of success than the popular alternative. That is why they persevere in their efforts, regardless of the obstacles in their path that could easily sidetrack the best. They get that neither a person’s position nor the power of an organization will help protect the students from the inadequacies of yesterday’s thinking. Failing to change is not just wrong, it is fatal. That is why exercise physiologists need new thinking patterns and new rules to deal with the historical influence of the failed rhetoric.

**ASEP Vision vs. Traditional Thinking**

In professional terms, new thinking translates into supporting the ASEP vision; one that is a powerful vision of the future. Creating what has never existed before is at the core of the entrepreneurial instinct that is, in the words of Thomas Peters and Robert Waterman, “a maniac with a mission.” This state of mind requires flexibility and adaptability to meet the challenging circumstances that inevitably appear. It requires the willingness to fall down, pick oneself up, manage surprise, and start over time after time. This thinking in itself is the Declaration of Independence that marks the beginning of professionalism in exercise physiology. As a result, the students’ future as exercise physiologists will be different from what it has been for decades.

Creating a new and different future allows for breaking with traditional thinking, to ask questions, and apply new ideas to new possibilities. The exercise physiology revolution of the 21st century moves from being caught up only in research to probing for meaning and forces behind exercise as medicine. The myriad forms of transformational change, particularly as witnessed from the healthcare perspective, will impact the students of exercise physiology as well as those who need the service of exercise physiologists. Our invisible thoughts of yesterday, our beliefs in exercise physiology being more will guide exercise physiologists at all levels to a new and better future. As George Land and Beth Jarman [5] put it, “…the possibilities you imagine for anything actually make up half of its reality!”

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**Come to the edge, he said.**
They said: We are afraid.
Come to the edge, he said.
They came.
He pushed them…and they flew.

-- Mr. Strauss
Thus, in the minds of the ASEP exercise physiologists, they are already living in the
future! Their imagination has rendered them fruitful of fundamentally being responsible
for moving ASEP forwards. They think that ASEP is all about mastering professionalism,
connecting to exercise physiologists at all levels, and doing what is necessary to reinvent,
sustain, and grow exercise physiology. To think otherwise is to totally misunderstand if
not resist the ASEP vision of why professionalism and credibility are required for growth
and sustainability. As Eileen Caddy said, “Life is full and overflowing with the new. But
it is necessary to empty out the old to make room for the new to enter.” The emptying out
begins with shifting from yesterday’s thinking to today’s thinking with exercise
physiologists coming together on behalf of the profession.

The ASEP pathfinders understand the importance of breaking with their past. Their
unshakable commitment to the ASEP vision is creating and relating to exercise physiology
in a completely new way. That is why they made a conscious decision to go against the
conventional tide. Through their work, they will bring into being an inner wisdom that
will help all exercise physiologists grow and express their values. Singly and collectively,
they believe as George Bernard Shaw said, the true joy in life is “being used for a purpose
recognized by yourself as a mighty one….” Please appreciate that this means be willing to
follow an uncertain path. Land and Jarman [5] said it this way, “Surprise, serendipity,
uncertainty, and the unexpected are guaranteed on the way to the future.”

There are many kinds of risks in life: emotional, intellectual, and physical. The
important ones are those that help you grow and express your values. To laugh is to
risk appearing foolish. To weep is to risk appearing sentimental. To reach out for
another is to risk involvement. To expose feelings is to risk exposing your true self.
To place your ideas and dreams before the crowd is to risk loss. To love is to risk not
being loved in return. To live is to risk dying. To hope is to risk despair. To try at all
is to risk failure. But risk we must because the greatest hazard is to risk nothing at all.

-- Wally “Famous” Amos [6]
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