Our Community Query: During the holiday season, how can we embrace and value the perspectives of other practices or cultures? How can we hold those who may be suffering from recent tragedies in the light?
- Upper School TASQUE (Teachers and Students for Quaker Understanding and Education)
Greetings. In this issue of Among Friends, Athletic Director Alan Quackenbush and our Physical Education faculty provide an inside look at the elements of our comprehensive PE program and how not only the body, but also the mind and spirit can be positively affected by physical fitness.

When it comes to fitness of the mind, Physical Education and Health teacher Christine Botti illustrates the direct link between physical activity and academic success. “One of the facts that always surprises students is that research shows a positive correlation between physical activity and academic achievement. When our students begin to feel that drain, exercise is so important to stimulate cognitive ability and help to improve their overall well being,” explains Christine.

How does physical education impact one’s spirit? As Mr. Quackenbush outlines, the process starts with the teachers, who early on, help model what concepts of personal and social responsibility (P&SR) look like; then students learn how to “take ownership for respect for others, self-control, involvement in the class, lessons and collaborative work with classmates, self-responsibility and caring for others.”

Ultimately our goal is that students will take these skills and core values out of the gymnasium and apply them to real-life situations.

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At Friends our Quaker mission calls upon us to design and integrate into our program these very same values of respect, self-expression and personal and social responsibility. So what happens when the students (and teachers) step outside the walls of the gym?

I had the pleasure of glimpsing a poignant interaction in the Dining Commons this week. It is customary for our Physical Education teachers to accompany their students to the lunchroom following class. Amidst the cacophony and hubbub of students finding their seats and getting in lines for lunch, I was drawn to one moment, as if frozen in time. I noticed that Mr. McGuire, one of our PE teachers, was speaking at length with one of his young students.

Crouched down, he nodded his head, listening intently to the student and then appeared to share some very important words of wisdom. When Patrick stood up, I called him over. As he walked toward me, the child looked back at him with a knowing, shared smile and proceeded to skip to the lunch table. “What was that conversation about?” I asked. “It looked quite intense.” Patrick laughed and replied, “I noticed she was not quite as energetic in PhysEd today. I wanted to check in to make sure that she is okay. And she explained to me that her family just got a brand-new puppy, who cried all night.”

When I see that connection between our faculty and our students, not only do I know I am witnessing what may be a rare thing in our society, I know that this is something in our school that is demonstrated over and over again.

Between Mr. McGuire and his student, there was no assumed discipline, no redirect of the student during class; instead there was ample adult modeling – the responsibility and caring to be on the same level with his student so that he could take the time to find out the “why.”

Physical education – the pathway to and through mind, spirit, body ... and puppies.
Make a Gift Today

This year, we ask our community to make their Annual Fund gift intentions by the end of the calendar year. Please help us reach our goal by making your gift or pledge by 12/31/17. All pledges can be funded any time before 6/30/18.

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Are we a healthier nation than we were 100 years ago?
I asked this question in an article that appeared in Among Friends 15 years ago – one I would often pose to my health classes.

At the time, I contrasted the replacement of infectious disease as our major health concerns (now more effectively treated and managed through improved medicine, sanitation, pharmaceuticals, housing, diagnostic procedures, etc.) with chronic diseases that take longer to develop, but for the most part are more insidious and threatening and are

Troubling trend
Percentage overweight/obese in 2014

- Adults: 70%
- Children, ages 6-11: 17%
- Children, ages 12-19: 20%

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often the result of our lifestyle habits. Fifteen years ago, the Centers for Disease Control, reported that among individuals older than 25, the top three causes of death were heart disease, cancer, and stroke, with type-2 diabetes steadily climbing. A report by the Surgeon General in 2001 identified that in 1999, 61% of adults in the United States were overweight or obese. Among children age 6-11, 13% were overweight (double from 1970) and among 12-19 year olds, 14% were overweight (triple from 1970).

Heart disease and cancer remain as the top two with lower respiratory disease coming in third but stroke is still in the top 5 for adults, however what is alarming is that statistics that are reported as of 2014 show that the number for adults who are overweight or obese has risen to 70%, children 6-11 years old who are overweight has increased to 17% and 12-19 years old, 20%.

Type 2 diabetes, a preventable disease that stems from inactivity and poor nutrition, was once an affliction of our middle-aged population. It is now quickly becoming more prevalent and significant health issue among adolescents and children. “Until 10 years ago, type 2 diabetes accounted for less than

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VIDEO: From individualized cardio workouts to kickboxing, weight training and yoga, explore how the Friends Academy Physical Education program is promoting a lifelong love for fitness.
3% of all cases of new-onset diabetes in adolescents. At present 45% of cases are attributed to it.”

These are behaviors and trends that begin early and manifest themselves later in life through the development of some of the health problems listed above. Additionally, the concept of “health” has broadened, moving from physical health to one of “health & wellness” where an individual’s mental, social and emotional well-being are considered in addition to their physical status. So how do you give children and young adults the best opportunity to ensure that they are able to manage their lifestyles in a way that help prevent the onset of these health issues that impact the quality of their lives?

There are a number of factors that influence these trends including the onset of technology, the perceived safety of neighborhoods allowing for children’s play, the family value that is placed on this concept, access to recreational facilities, nutrition and the increase in academic demands to name a few. One component that is essential in this issue and within control of educational institutions is that of physical education programs.

On the surface, physical education programs can be seen as providing physical activity for students in an effort to address the issue of health and fitness. However these programs go beyond just providing “activity” and help address other areas from an educational framework that help students work

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Seventh and eighth graders stretch through a series of poses in a weekly rotation that includes yoga and dance.
towards the integration of “spirit, mind and body.” Physical education programs provide for the teaching of motor skills, the literacy and knowledge of movement and exercise concepts, the opportunity to learn responsibility, respect and appropriate social behavior, and the opportunity to recognize the value of physical activity for enjoyment, health, self-expression and social interaction.

In an effort to address these areas, the K-12 physical education program at Friends is divided into three strands: the development of motor skills, the knowledge of health-fitness concepts and the concept of personal and social responsibility (P&SR) that is inherent within this area.

“Through our Physical Education classes, students are taught the importance of life-long fitness and activity. Students are taught at a young age the benefits of physical activity on the body and mind and the positive results of staying active well beyond their school years. In classes, students are exposed to a wide variety of health-fitness concepts, sports-skills, and motor activities in hopes that they find activities that they enjoy and can continue throughout their lives. The goal of our curriculum is to instill in each student a love for physical activity and a desire to keep moving their entire lives.” – Amanda Haughney, Physical Ed., Athletics & Health

Motor Skill Development

Back in the day, your parent’s physical education programs centered around team sports… flag football, soccer, basketball and softball. Occasionally other activities may have been included however that was the cornerstone of most

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When the running boom of the mid-to-late 70s hit, many physical education programs began to include running/jogging as the centerpiece and the attention to motor skill development took a back seat. The significance of motor skill development however, speaks to three areas: competency, confidence and developmental readiness. If physical activity in lifetime activities and pursuits is going to be realized into and throughout adulthood, there must be some minimal level of motor skill competency that would allow an individual to participate in lifetime activities. In addition, without a minimal level of competency, most individuals will not feel confident to become engaged in activities that require these skills (tennis, golf, volleyball, racquet sports, basketball, soccer, recreational games, etc.) thereby limiting their choices as adults. Finally, there is a “developmental window” by which an individual has an opportunity to develop certain motor skills, specifically in the elementary years. Once this window is closed, the chance of developing a mature motor skill pattern is greatly diminished and lost. This impacts their ability to pursue lifetime interests as well as sport opportunities.

Motor skills in the physical education program are grouped into seven areas: throwing, catching, kicking, striking, dribbling, locomotor skills and body awareness. These skills are inherent in every activity lower school students are involved in. Beginning in 3rd and 4th
grade, students begin to transition into learning basic game and team concepts that will allow them to apply those motor skills in an authentic way through a variety of games. These concepts are taught in a way that allow students to learn to apply them across a variety of activities thereby preparing them for more complex games. The emphasis is on the joy of movement, fun and inclusion which includes a dance component that every grade cycles through in the course of the year as well.

“Using the sport education model in our US physical education puts students in charge of their own classroom experience, while using that in conjunction with P&SR/fitness concepts students to create an environment of collaborative fitness education that is limited only to their imagination.” – Jordan Rouff, Physical Ed. & Athletics

**Health-Fitness Concepts**

Fitness and improved physiological function through exercise and activity is a primary vehicle by which an individual will have an opportunity to remain healthy and disease-free. Decades ago physical fitness was measured by sport skills that were more dependent upon athletic ability and genetics: 50 yd. dash (speed), long jump (power), shuttle and agility runs (agility), throw for distance (skill ability), etc. Because these fitness assessments were based more on athletic traits, it led to a skewed impression of fitness, i.e. those who were athletic were fit and those who were not athletic were

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fit. Additionally, there usually wasn’t much chance to improve many of these athletic and neuro-muscular skills. Finally, these traits (speed, power, agility, etc.) didn’t really have much impact or effect on physiological function from a health standpoint.

In the early 80s there was a paradigm shift in the definition of fitness and the physiological traits that actually had an impact on the development of chronic disease. Hence the sports-fitness skills were replaced by “health-fitness concepts” or the physiological traits that were most closely associated with quality of life (chronic disease, ability to respond to lifestyle demands and the ability to pursue recreational activities). This led to a focus on four health-fitness concepts: cardiovascular endurance (cardiovascular disease), muscle strength/endurance (the ability to confront daily chores and challenges as well as help limit musculoskeletal problems), flexibility and body composition. These four traits were found to be at the center of one’s ability to create a hedge against cardiovascular and metabolic disease, and allow an individual’s body to function in a way that would maintain their quality of life and enjoy an active lifestyle.

Students learn about these basic health-fitness concepts beginning in the lower school through lessons where these concepts and principles are folded into their activities….how to identify the difference between different types of exercises, how the body responds to activity and exercise, parameters that are used to modulate exercise, how to monitor activity through heart rate, how to choose exercises, etc. This teaching continues up through our upper school Personal Health curriculum through our cardio-fitness, strength & conditioning, yoga and dance units.

This teaching is supplemented through a variety of tools that bring these concepts to life. Students in the lower school assess their fitness levels through the FITNESSGRAM®, a program initiated by the Cooper Institute for Aerobics Research. They learn that fitness exists on a continuum and is fluid rather than being an “either/or” state of being. The FITNESSGRAM® is not an end in and of itself, but is used as

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a teaching tool to help with an understanding of some of these concepts.

Students across all three divisions become familiar with the use of heart rate monitors, which track their heart rate response and through visual feedback communicate whether they are in an appropriate “target heart rate” range that will elicit a physiological training effect.

Students are also given access to pedometers that record the number of steps in a given activity.

Developing an understanding of health-related fitness concepts and how they relate to activity ultimately will empower students to be able to take ownership for their own exercise programs and habits well into their adult lives.

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**Personal & Social Responsibility**

The third strand of the physical education curriculum deals with a student’s ability to take responsibility for their actions both as an individual and in the context of working with others. It deals with life skills and values in a physical setting that are in sync with the Quaker values that are inherent within the philosophy of the school.

Students take ownership for respect for others, self-control, involvement in class, lessons and collaborative work with classmates, self-responsibility, and caring for others. Ultimately through their development, their level of P&SR

After every Lower School PE class, students assess their own engagement and involvement using the Personal and Social Responsibility tool.
is expected to transcend outside the physical education setting and gymnasium where these values are internalized and are applied in real-life situations.

Early on, teachers help model what these concepts look like in a class setting and use them as core standards for behavior within class. They will refer to these, as students take part in class activities and interact when working with a partner or in a group. Students often assess themselves at the conclusion of each class through the use of a graphic that identifies each of these traits in a hierarchy. Self-reflection is an important aspect of their ability to realize the importance of these values, not only in a physical setting but throughout their experiences with their classmates and outside the classroom.

“The P&SR model helps students to reflect daily on their approach to learning, in order to identify what worked and what didn’t, as well as help to recognize how their teachers can best support them in attaining their personal best. This creates a platform for dialogue between the students and their teachers, where students feel valued and able to take control of their own success. Perhaps the greatest attribute of this model is that it is student-driven, with only support and guidance from teachers. I firmly believe that this framework is best aligned with our mission here at FA, honoring the individual uniqueness and talents of our students.” – Mike Damm, Physical Ed., Athletics & Health

The impact on “Spirit, Mind and Body”

The research on the benefits of physical activity and physical education on an individual’s physical health and well-being is overwhelming, however there are other benefits that go beyond physical health.

In 2008, Harvard psychiatrist John Ratey published a ground-breaking book titled SPARK, that focused on the “new science of exercise and the brain.” Ratey’s interest in this area was piqued when he reviewed the results of a learning experiment in the Naperville, IL school district. Educators found that those students who took part in physical education classes early in the morning did better in reading comprehension, had a significant improvement in their reading scores, and improvement in cognitive abilities and academic achievement. This has since been corroborated through additional studies where it has been found that at the least, physical activity can enhance academic achievement and help improve test scores.4, 5, 6

“One of the facts that always surprises students is that research shows a positive correlation between physical activity and academic achievement. When our students begin to feel that drain, exercise is so important to stimulate cognitive ability and help to improve their overall well being.” – Christine Botti, Physical Ed., Athletics, Health Curriculum

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Coordinator.

Through a further review of the most recent research, Ratey discovered that there was a significant mind-body connection and that exercise and aerobic activity helped stimulate the production of chemicals that helped grow brain cells and increase vascularization. However Ratey didn’t stop at the impact on cognitive ability. After further review he learned that there is a physiological basis for why exercise can help attenuate the effects of stress, anxiety, depression, attention deficit, addiction, hormonal changes and aging.

It seems that when you look beyond the physical benefits of activity and physical education, there is credence to the phrase “a sound mind in a sound body.” Physical education can enhance health & wellness – physical, mental, social, emotional and spiritual well-being.

Behind all of this are three underlying themes:

1. Physical education programs provide the opportunity for young individuals to learn the skills and concepts that allow them to monitor, maintain and take ownership for their own fitness and well-being once they leave the educational setting.

2. Physical activity and exercise is the vehicle that will allow individuals to create a hedge against the development of chronic disease…those diseases that are our nation’s leading health problems, and allow one to lead a healthier, better quality of life.

3. Physical activity (whether it be recreational sports or individual fitness activities, such as aerobics, dance, yoga, hiking, biking, etc.) can provide an individual with the opportunity for self-expression, fun and socialization that impacts not only their physical health but mental, social, emotional and spiritual health as well.

Through the physical education curriculum and daily physical education classes, our students are provided with a program that will give them a better chance to offer a resounding “Yes!” to the question, “Are we...will we be...a healthier nation?”

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