Today in PT Magazine

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Keeping Our Kids Well: Are America's Kids as Fit and Safe as they can be?

Health care often parallels the media: people hear buzz words about fitness for kids, and we get more questions about safety. The newspaper runs a story about golfers doing sit ups on weekends, and now we have official golf injury prevention programs. As far as kids are concerned, the buzz in the media is about the two most polar opposite topics (both about kids, though)… kids in sports, and whether they are doing too much, and America's inactive kids, and how to encourage them to get off the couch. Both can be harmful to one's health (4 fractures by the time kid is 12 versus a kid testing blood sugars 4 times for diabetes by the time he is 12). Safe Kids Worldwide estimates that for ¾ of U.S. households with school aged children, 1 of the kids in the family plays organized sports. In addition, the Centers for Disease Control (CDC) statistics show that 715,000 sports injuries every year occur in school settings. For those who are participating in organized sports, 1:5 emergency room visits are a result of adolescent sports participation.

Traditionally, the lay public thinks that the health of our kids is for our "educators," i.e. the school nurse, the PE teacher, the parents, general/family practitioner. However, Physical Therapists and their staff have recently taken a well-qualified-for place in educating our kids (and their families) on the importance of being healthy in sports and in life – no matter what level they choose! Reading the statistics is shocking,

however, motivating as well. These numbers show us just how influential we can be in pediatric orthopedic injury prevention.

How do we reach the children themselves? Education is the key to making sure that we as the PT profession can connect with the kids. The first step is to address and know the audience. From personal experience as a orthopedic pediatric sports-focused PT, I can say that the audience is made up of parents, coaches, kids, and school staff- listed in order of influential importance. When attempting to teach health to kids, the parents are the ultimate decision makers. They will help to create a positive environment or encourage an unhealthy one. The environment that promotes a healthy lifestyle can be molded by physical therapists in the community as well as the opportunity to influence the family when the child is in clinic as a patient.

The opportunities for reaching these kids can be directly with patient care, but can also be in the school systems. Recently, the President's Council on Physical Fitness and Sports (PCPFS) celebrated its 50th anniversary in 2006. This organization helps to promote the health and wellness of kids, preventing obesity, encouraging activity, and bridging the gap between school activity and home exercise. Because injuries are a leading reason people stop participating in potentially beneficial physical activity (CDC), we need to help keep kids healthy so their motivation can lead them to a healthy lifestyle.

Fitness is monitored and tested very poorly on a nationwide level. Pediatricians do not routinely have children perform runs or ask times for the mile during the yearly physical. The parents, coaches, and PE teachers are then the most knowledgeable on a child's fitness level. Nationwide programs *do* exist, such as the Presidents Challenge Physical Activity and Fitness Awards Program , that PE teachers at schools are sometimes required to have their kids participate in. The children do a variety of athletic tasks, such as sit-ups, push-ups, the 1-mile run, and flexibility testing. However, the problem lies in the year-round curriculum – the testing is done for tasks that are not practiced regularly. This results from these sporadic tests in which the children are unprepared, are often used as measures of local health and wellness in the community's children. This is not, therefore, an accurate measure of the actual athleticism of the group at hand. Many children in classes are allowed to sit out, due to notes from pediatricians,

parents, and school nurses. There are acceptable reasons for disinvolvement for health reasons such as kids not being able to perform sit ups due to a bad back, or a pediatrician not wanting a 10-year old girl to run the mile due to an old ankle injury that she complains about (without formal PT). The opportunities are endless in connecting with the kids, if they are utilized to the extent that they are available. "In the clinic, we make sure to have interaction with the family at all times and encourage the child's exercise program at home," states Amy Tritt, DPT, a pediatric specialist from Rainbow Physical Therapy. Hopefully, this overflows to motivation at school and in the playground. "If the PT makes a connection with the local PE teacher, the teacher can be an instant referral source for getting kids and parents educated on where to go for injury guidance and general health."

Another way of getting involved with childhood health promotion is through complimentary injury screens, which are very popular with busy parents. The hectic lifestyle of families with multiple children, all involved in different exercises, demands the need for instant gratification. As PT's, free screening can be performed, with advice at hand for the parents, and guidance to a proper orthopedic physician specializing in pediatric injuries for diagnosis and treatment regimen direction. We, as Physical Therapists, are quite knowledgeable on which physicians are experts, and how to help parents obtain appointments with well-respected community doctors. In direct access states, these screening can turn directly into patients as needed, without the need for the MD referral and scripting.

PT's are very active in competitive sports, especially pre-adolescent and teen. This rise in the demand for PT services in this age group is a direct result of the increased pressure on kids to achieve higher athletic status earlier in life, the rising competitiveness for national-level teams and collegiate scholarships, and the availability of training programs for families with disposable income. In addition, it is a group to focus on based on injury rate alone, and the ability to be effective in potential injury prevention. Safe Kids Worldwide states that 62% of organized sports injuries occur during practices as opposed to games and tournaments. However, when the parents were polled, 1/3 of them

admitted that kids do not take the same safety precautions in practice as they do in games. These numbers are very high! From a rehabilitation perspective, some injuries cannot be prevented by pre-habilitation, or injury prevention, including crashing, falls, contact, etc. However, orthopedic injuries such as achilles tendon ruptures, ACL's, muscle strains/sprains, can all be prevented with proper biomechanics training. The question that is asked is, if families have enough to spend on $150 pitching lessons, $450 gymnastics for a month and a $2,000 wig for Irish Dance, how come parents will not spend money on an injury prevention class lead by PT's, the professional in rehabilitating the injuries that may happen? It seems common sense, but as we find, you have to get access to the groups in order to have an impact. This is done through coaches, instructors, teachers, managers, and other direct influences. For instance, when working with an adolescent gymnast on injury prevention, you can talk to the child about lowering repetitions of arching/lordosing due to a pre-stress fracture in the spine. However, if the coach tells the athlete to proceed, and the parents says to do whatever the coach says (of course, not knowing that the coach is making decisions not based on medical safety), then talking to the child could be a dead-end road. An approach that may be taken is to make sure that the coach, parent, athlete, and medical professionals involved in treatment (if any) have team meetings, conferences, or group communication. This will ensure respect from the coaches as well as team-treat approaches for the best interest of the athlete.

Now that avenues of information dissemination have been discussed, and options for involvement are understood, we need to implement what we know! There are many aspects to successful health care marketing campaign for kids. For both kids in sports and the inactive school-aged kids, there are essential steps to be taken. First, you have to identify your strengths as a PT and what you feel that you can expertly speak in. Assess the staff that you have – do you have former volleyball players? Do you have a PTA that has a great intuition for teaching? Do you have a patient who is on the parent-teacher association at the local school? If you spend too much time banging on doors with cold calls, the open doors may be stuck waiting for you. Second, you have to identify the audience that you will be trying to reach. If you are attempting to teach kids in the 5th

grade that daily exercise for 20 minutes is going to promote better health, then your audience becomes the kids, the teachers, the PE teacher, and the families. The kids will be doing the exercise outside of school, and will need support from their families, supervision, and. Third, you will want to make sure that you have a campaign put together with media from all forms- written, email, spoken word, examples, etc., to cover all bases of education. For example, kindergarten kids will learn well with demonstrations of how to fall properly off of monkey bars. A third grade classroom with short attention spans will react well to group stretching, where they are actively involved. High school kids are smart enough to want proof of why they need to do things, so active plus written or spoken word reasoning is important. Peer influence is the most powerful message delivery system at this age, and finding out the injury rate at the school, or using certain athletes as examples, will be effective in teaching prevention so it "does not happen to me, too."

Forth, the message has to be delivered to all parts of the focus audience based on the most effective manner. "A message is only as good as how it is heard, and how important the audience *perceives* it to be," states Dr. Merissa Ferrrara, Professor in Health Communications at the College of Charleston, specializing in public health, risk assessment, wellness campaigns. "There are many messages about exercise, obesity, eating right… kids these days are bombarded with people telling them what to do.Very few people take the time to visit their audience in person and be an active participant in the message that they are teaching. Active, hands on learning is very effective for adolescents." Using this knowledge, they can walk around the track with you, being rewarded for finishing. Lastly, follow-through is the last step. According to the PCPFS, a tracking system has been proven to work well for carryover of what kids learn in school PE and home assignments. Extrinsic reward systems have worked (similar to the Pizza Hut Book-It program for reading encouragement. We, as PT's are aware of this, having been the reasoning behind exercise tracking sheets for home exercise programs. For example, he parents can be given tally sheet that they will fill out when the kids are done exercising, with descriptions of daily stretching and aerobic exercise taught by a PT and a

PTA at the park district information night. This may turn into rewards of discounts for pool admission in the summer or other tangible rewards that the kids value.

For the sport-minded children who are elite adolescent athletes, there are certain attributes to programming that work better. For example, I run a successful gymnastics injury prevention program as well as on-site treatment and rehabilitation. Every year, I make sure that the parents get introduction letters explaining who I am and my credentials, what we will accomplish in the year, and what we offer. We entice the gym by explaining the ease of insurance verification and the time-saving aspects to being on-site for treatment. I also focus on the sport-specific rehabilitation that is done on site. The communication is clear to the coaches, and we enter and exit the gym, injury reports are filed every day, as well as MD communications logged for the coaches to read and revisit as needed. Parents are on-site to speak to and interact with. In order to emphasize the injury-prevention aspect, we have created sport-specific conditioning programs for the kids, after identifying general sport injury trends (ACL, Spondy-category spine injuries, chronic wrist pain). The programs are implemented for the kids, through educating the coaches, as well as the parents to emphasize the message, repeatedly. The largest step is familiarity. Not only is this good for potential injuries (the parents will feel comfortable calling you because they know you) but this is a captive audience of the people who are paying for, in time and money, their children to succeed. If you can impart knowledge on them that will help in this process, you can use the commitment that they have to their children in order to educate them on injury prevention.

Another great idea for involvement in injury prevention for adolescents is shoes. After all, every kid wears them! There are many children who have foot and back pain due to improperly fitted shoes. While wearing shoes that are not supporting the foot correctly can cause current or acute pain in the child, it is what the future may hold for pain, injury, and overall body biomechanics that can be prevented! Physical Therapists treat foot injuries in kids quite frequently. Many of these incidents, such as plantar fasciitis, achilles tendonitis, and ankle sprains/strains can be prevented or decreased by properly fitting shoes- from the right size, to the correct pronation/supination control and

cushion based on activity and weight. PT's can offer parents of school groups, park district program participants, or even at after-school meetings a valuable service in education on proper footwear. Connections with local shoe stores can be vital as well, letting the parents (and your patients) know that you have a valuable source of knowledge, a professional who specializes in fitting shoes of all brands that are made for kids. "We have a great relationship with our PT's who refer patients to us for shoe fitting. Some parents bring their kids in for shoes they need for PE class, wanting to make sure that they are fitted right, both structurally and biomechanically, and other parents want specific support for sports and activities. Most importantly, the shoes need to be comfortable and the right type for the foot, or the kids will only wear them when they have to," says Patrick White, Owner of Glen Ellyn Running Company in IL, and devoted supporter of children's fitness and running. "The parents state consistently that they are impressed with the professional relationship that we have, and they trust me right away because I am a referral from a health care professional." PT organizations can develop relationships within their community that will cross-support one another – the PT will help kids (and parents) get into proper shoes. The running shoe or athletic store can refer children to you, as well, for injuries or biomechanics questions. In addition, kids running clubs are great places to speak to parents and running adolescents, as a captive audience, who already possesses motivation for exercise and a healthy lifestyle. This cycle will keep the kids as healthy as possible, and give back to the community as well.

The question that most of you have while reading this if you are a manager of a center is how do I get paid for all of this? First, if you are dong community education, pro bono work in the beginning will help to make a name for your program and increase your presence in the community. This is worth its weight in gold! Eventually, you can track your referral patterns by using intake forms at your front office, and categorizing community seminar names as referral sources, including the PT's name that speaks and presents. If you connect with your local park district, you may be able to present a seminar and advertise it in the park district program book, for any topic from stretching, to ACL prevention for soccer players, to fitting kid's shoes. You can charge the participants, encouraging them to sign up in advance, and split the fee with the park

district. This will help to gather participants, and increase the effectiveness of the presentation.

The bottom line is simple: knowledge is a terrible thing to waste, and seeing people who are not educated about simple topics of which there is plenty of knowledge and research available is also a lost opportunity. We as rehabilitation specialists are exposed to injury rates, mechanisms, environmental contributing factors, and exercise teaching methodology each and every day. Why not use it to prevent injuries and inactivity, so that there are less people who get injured in the first place! If we do really well, yes, the profession with have less of a demand. But, if the demand is in the prevention, the world is a much happier and healthier place.

The challenge to you is to commit to educating at least 3 community professionals about PT, the benefits of using our education for teaching, and increasing awareness of what we do for kids of all ability levels. Pick 3, and stick with it – then, tell us your success stories!

For more information, you can log onto the following websites to obtain statistics, resent research, community and nation-wide trends, as well as helpful information on developing your own public health campaign for kids:

1. www.usa.safekids.org or email at info@safekids.org
2. www.presidentschallenge.org
3. www.fitness.gov or http://www.fitness.gov/resources_factsheet.htm for updated statistics
4. http://www.cdc.gov/nchs/about/major/ahcd/injurytable.htm for injury table on emergency visits in the USA or the home page of www.cdc.gov

Citation: U.S. Department of Health and Human Services. The following facts are based on information from publications prepared by agencies and offices of the Department of Health and Human Services: the Centers for Disease Control and Prevention; the National Center for Health Statistics; the Office of the Surgeon General of the United States (Physical Activity and Health, 1996; Call to Action to

Prevent and Decrease Overweight and Obesity, 2001), and the Office of Disease Prevention and Health Promotion (Healthy People 2010).

- 16 percent of children and teens aged 6 to 19 were overweight in 1999-2002, triple the proportion in 1980. Fifteen-percent of children in the same age group are considered at-risk for overweight. The percentage of overweight African American, Hispanic, and Native American children is about 20%.
- More than 10 percent of children between the ages of 2 and 5 are overweight, double the proportion since 1980.
- Health risks associated with being overweight or obese include type 2 diabetes, high blood pressure, high cholesterol, asthma, arthritis.
- The major barriers most people face when trying to increase physical activity are time, access to convenient facilities, and safe environments in which to be active.
- School and worksite interventions have been shown to be successful in increasing physical activity levels.
- According to a study done by the National Association of Sports and Physical Education (NASPE), infants, toddlers, and pre-schoolers should engage in at least 60 minutes of physical activity daily and should not be sedentary for more than 60 minutes at a time except when sleeping.
- One quarter of U.S. children spend 4 hours or more watching television daily.
- Young people are at particular risk for becoming sedentary as they grow older. Encouraging moderate and vigorous physical activity among youth is important. Because children spend most of their time in school, the type and amount of physical activity encouraged in schools is important.
- Only 25 percent of students in grades 9 through 12 engaged in moderate physical activity for at least 30

minutes on 5 or more of the previous 7 days in 2003.

- Only 28 percent of students in grades 9 through 12 participated in daily school physical education in 2003, down from 42 percent in 1991.