OLYMPIC COACH SPORT PERFORMANCE DIVISION

October 2013 VOLUME 24, ISSUE 3

IN THIS ISSUE

Publisher
United States Olympic Committee
Coaching Education Department
1 Olympic Plaza
Colorado Springs, Colorado

Editor
USOC Coaching Education Department
Christine Bolger 719.866.2551
Christine.Bolger@USOC.org

Olympic Coach is a publication of the United States Olympic Committee Sport Performance Division/Coaching Education Department. Readers are encouraged to submit items of interest for possible inclusion. Submitted materials will be acknowledged, but cannot be returned and inclusion is not guaranteed. Materials should be sent to Christine Bolger at Christine.Bolger@USOC.org.

Message from the Chief of Sport Performance

Alan Ashley

Welcome back to Olympic Coach!

As we approach Sochi 2014 we're eager to see how the years of training our athletes have invested will play out for their Olympic and Paralympic dreams. While the Games are shared with the world every two years, we know that the athletes, coaches, and support staff work toward achieving their dreams every day. With that, we're grateful to our sponsors and donors who have supported the Team USA training and competition opportunities.

The USOC is coming off a successful National Coaching Conference this past June. In partnership with the USA Coaching Coalition partners – the American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD), the National Collegiate Athletic Association (NCAA), and the National Federation of State High School Associations (NFHS) – the USOC once again hosted the amateur world of coaching and coaching education, featuring researchers and practitioners who are helping to shape best practices in the field of coaching. This issue of Olympic Coach includes several of the presentations that took place at the conference.

We were also fortunate enough to have some coach/athlete panels including Drew Johansen and Abby Johnston from USA Diving and Adam Krikorian and Heather Petri from USA Water Polo who shared their insights in how they prepared and executed in London.

Also in June we recognized the finalists for the USOC Coach of the Year Awards and announced the national award recipients in each of the five categories at the Coach of the Year Awards Dinner. We're proud of all the coaches and NGBs for supporting their work and are constantly amazed at the results these great coaches achieve.

With winter right around the corner, we are approaching the home stretch toward Sochi 2014. We're so energized with the possibilities the future holds for our Winter Sport Team USA members. Amazing awaits!

Sleep Basics for an Olympic Coach
Lindsay Thornton- Sport Psychologist, Psychophysiologist

A few years ago, a bar graph displaying the nighttime sleep and nap durations for well-known athletes circulated the Internet. The graph has bars representing Roger Federer, LeBron James, and Michelle Wie all getting about twelve hours of sleep per night, and other athletes getting nine. The viewer assumes this is every night. The image has been attributed to Zeo (a now defunct sleep monitor that can be worn on the head, providing useful information about quality and duration of sleep), but there is no information on how the data were collected – did Federer, James and Wie enroll in sleep studies? Nonetheless, I show this graph to coaches and athletes as a platform for thoughtful discussion. Many respond with disbelief, while others approve. To those who approve, the idea of spending half of one's day sleeping is not alarming. A surge in sleep research has brought our attention to the role of sleep in athletic performance and recovery. This article summarizes some highlights from sleep deprivation and sleep extension research, while providing advice for coaches to consider for getting a good night's rest for themselves and their teams.

What happens when we sleep?

At night, when there is less light passing through the eyes and past the pineal gland, the brain produces melatonin. This is the sleep drug that makes us feel tired and allows us to sleep. Once we fall asleep, our brain is disconnected from the outside world, and we descend and ascend through various sleep stages. We pass into light sleep, down towards deep sleep, and then up through a period of dreaming sleep called rapid eye movement (REM). During deep sleep, growth hormone is released and cortisol is decreased. During REM, memories are processed from the day, associated with other memories stored in our brain, and downloaded into our memory centers. In the morning we wake up, and if we have had a good night's sleep and haven't missed out on too much sleep in the previous nights, we feel well-rested and ready for the day. After the immune system has been active through the night and tissues are grown and repaired, we wake up a slightly healthier and stronger version of ourselves.

Circadian Rhythms

Just as there are rhythms in our sleep, where we are in deeper and lighter states of sleep, there are periods throughout the day of greater and lesser alertness. Circadian rhythms rise and dip with our sleep and alerting drives kicking into gear creating our "internal clock". On average, by 8:00 a.m., we've woken up, and our sleep drive is low. Our alerting drive then becomes active and, assuming we have been getting regular and adequate sleep, we feel alert for a couple of hours. This level of alertness gradually wears off, and from 1 to 2 p.m., we are in a trough of tiredness because the alerting drive is in low gear in midafternoon. By 6 p.m., the alerting drive kicks in again for a few hours causing us to have a second peak of alertness later in the day. This is followed by the sleep drive increasing, causing us to want to go to bed for the night. A general rule of thumb regarding the effects of circadian rhythms on performance is that our mental peak is in the morning and

physical peak is in the evening. Research suggests that complex athletic skills requiring precision and combinations of fine and gross motor skills are slightly superior in the morning compared to the evening. Skills that require strength or mainly gross motor skills peak later in the day. Workouts can be planned to take advantage of these peaks in performance, for example, focusing on technical execution of skills in morning sessions and strength in late afternoon sessions. It is not surprising that in sports such as basketball and ice hockey, that combine gross and fine motor skill, athletes often take three hour game day naps. Long midday naps can theoretically recreate the morning cognitive peak in the evening, on top of the physical peak that naturally occurs for a 7 p.m. game.

We have a genetically-determined need for sleep, and training demands can increase sleep requirements

Adults need anywhere from five to ten hours of sleep per night, with most requiring between seven and nine hours. Athletes may be on the higher end of that normal range, requiring eight to nine hours of sleep or more, either all at night or most at night and the remainder from a daytime nap. Athletes who are younger likely require more sleep, given that research shows that from teenage years through 26 years of age young adults require approximately nine hours and 15 minutes of sleep per night. Just as increased training intensity creates a greater need for calories, it also creates a greater need for sleep. Athletes and coaches should be aware of periodizing their sleep to match their training cycles. For instance, during heavy training loads, schedules should be modified and athletes should make getting more sleep a priority.

We cannot 'train' ourselves to sleep less

Or, rather, we cannot do so without facing the consequences of a large sleep debt. In my experience addressing sleep with athletes at Olympic Training Centers, they are not getting sufficient sleep for optimal performance. The reasons for this are varied: some athletes have jobs that cut into their sleep time, some have families and young children who require their attention late at night and early in the morning, and, for some, sleep simply is not a priority. This is typically because they believe that their current amount of sleep is sufficient and they are unaware of the effects of sleep debt on their performance. Finally, others have difficulties getting or staying asleep. While we may want to believe we can adapt to getting less sleep, we physically cannot. We can mask the effects of feeling tired with caffeine, but our bodies do not learn to cope with less sleep. A price is paid, and in sport, this is slower recovery due to less physical repair at night, greater likelihood for illness due to decreases in immune functioning at night, less opportunity for learning from training due to decreased memory consolidation time during sleep, and potentially suboptimal levels of performance in sport.

We cannot get too much sleep

There is a common misconception about getting too much sleep among athletes. We can assume that athletes are generally healthy and need more sleep than non-athletes. The idea that sleep is bad likely comes from a lack of understanding of the role of sleep, or inopportune waking during

sleep cycles. Athletes can be meticulous about their training schedules and view sleeping more than one third of the day as wasteful. In my experience, this misperception can be addressed through education. The inopportune waking can be corrected with trial and error. When we sleep for longer periods, either at night or during a daytime nap, there is a possibility that we will wake up out of slow wave sleep. This can leave us feeling groggy. The technical term for this is "sleep inertia" and it can be fought by adjusting sleep time. For example, napping for only 20 minutes is a short enough period of time where you will not descend into deep sleep (there are also devices that can be worn to detect sleep stages, and wake you up from a lighter rather than deeper sleep stage in the morning). If a 20-minute nap is successful and the athlete wants to try sleeping longer, a 30-minute nap can be attempted. The athlete can generally learn how long it takes him to descend into deep sleep, and will ideally wake up prior to descending into deep sleep. The athlete may also allow 90 minutes for a nap, when she would have completed a sleep cycle and be in REM sleep, likely waking up from a dream.

If you are feeling sleepy, then it is likely you need sleep. American culture tends to be chronically sleep deprived, so much so that we either do not notice that we are living in a sub-optimal state of tiredness or we notice we are tired, but believe that this is a normal part of life, and therefore do nothing about it. When we sleep for more than eight hours on a nightly basis, it is safe to assume that we are paying off accumulated sleep debt. Lab studies have shown that our brain keeps track - hour-by-hour - of the sleep that it is owed for up to two weeks (and likely much longer, but two weeks is usually the amount of time that people will agree to sleep in a lab). In one study conducted at the National Institutes of Health, participants stayed in bed in total darkness for 14 hours per night for four weeks. Participants initially slept twelve hours per night, and by the fourth week they slept on average eight hours and 15 minutes per night. The researchers conducting the study concluded that the healthy adult participants were carrying approximately 30 hours of sleep debt that took almost four weeks to pay off. It is possible that some coaches and athletes are carrying similar sized sleep debts, and could benefit from strategically paying them off.

There are other mechanisms at play that cause us to feel tired beyond the time of the day and large sleep debts, such as melatonin. When produced naturally with a lack of light entering the eyes or by taking it in supplement form, we begin to feel sleepy. The converse occurs when artificial light gets into our eyes and suppresses the production of melatonin. Light from a computer or TV (any source of blue light) can delay melatonin production and alert the brain. This is a potential reason why, for instance, coaches can spend hours answering emails at midnight feeling less tired as time passes, when they had only planned to remain awake for a short period of time. This is because they were in fact tired when sitting down at the computer. The light from the screen signals that it is not night time, and we therefore feel less tired. The same is true for athletes who habitually use screens (TV, laptop, iPad, etc.) before bed time, and report that they aren't tired until after midnight. Sometimes poor sleep in athletes can be improved simply by creating a different routine at night, that includes turning off screens earlier, for example by 9:30 p.m., and getting in bed to read a book or doing relaxation exercises for an hour with the aim to fall asleep by 10:30 p.m. Assuming the athlete did not wake up too much during the night, by 7:30 a.m., a solid night of nine hours of sleep will leave them feeling rested and ready for another day of training.

Finally, a growth hormone releasing hormone (the hormone that signals the release of growth hormone during sleep) facilitates the onset of sleep. When rats are injected with this hormone in lab studies, they begin to feel tired. This hormone paves the way for the release of growth hormone by making it easier to fall asleep. Athletes should know that when they begin to feel tired, this is in part a sign that their body is ready to repair itself. Ignoring the feeling of being tired by trying to get more done before bed does not help the recovery process.

Types of Sleepers

There are three types of sleepers: Larks, Hummingbirds, and Owls. Nearly ten percent of the population is early risers or "larks". Larks' circadian rhythms are set slightly earlier in the day, where they feel very awake at 5 or 6 a.m. and are ready for bed earlier in the night. Another ten percent of the population are at their best late in the night, or are "owls". Their circadian rhythms shifted later, leaving them very tired (or preferably asleep) until later in the morning and more awake later into the night. The remainder of the population are hummingbirds, falling somewhere in the middle, alert by 8 or 9 a.m. and ready for bed by 10 or 11 p.m. Coaches should know that teenagers are genetically owls, designed to sleep around midnight and wake around 10 a.m. Certainly there are sports where early mornings are the norm, and to an extent teenagers can adjust their sleeping schedules to attempt to get to bed earlier. However, on average, teenagers are not tired when adults are ready for bed. From an evolutionary perspective, this may be because tribes took shifts sleeping: the elderly slept at dusk, the adults a few hours later, and the teens around midnight or early morning. Fighting the teen sleep schedule could at times feel like trying to reverse thousands of years of evolution. Coaches may notice that their more experienced athletes have an easier time with morning workouts. As your athletes enter early adulthood, they may get more out of early morning sessions than they did as teenagers. Feeling excessively tired in the morning isn't all choice for teens: it is part biology and part the malleability each individual has around shifting circadian rhythms.

Coaches themselves often report short amounts of sleep. Sleep does change with age, beginning in the mid-to-late 40s; there is a reduction in total sleep time, often accompanied with a lower quality of sleep (less deep sleep and lower amounts of growth hormone released during sleep), but coaches have very busy lives and often sleep is pushed down the priority list by other more pressing issues. Sometimes coaches ask what they can do to improve their mental performance. They ask, for example, if they should do a mental training game on their iPad to help them maintain their mental edge. I typically respond with saying that the most compelling research on maintaining or improving cognitive functions as we age points to regular cardiovascular workouts and a consistent eight hours of sleep. These two things, in addition to being involved in work that challenges you cognitively, will preserve memory and executive functions in the brain, as well as stave off age-related cognitive decline more than any amount of Sudoku playing.

What happens when athletes don't get enough sleep?

Insufficient sleep has similar signs of overtraining in athletes: more negative moods, difficulty with

motivation, and changes in immune functioning and metabolic processes. While intense training can suppress the immune system, there is a belief that the longer than average amount of sleep athletes (ideally) get is a protective factor. Assuming the athlete regularly carries little sleep debt, he or she is therefore less vulnerable to immunosuppression after intense workouts. Athletes who are chronically under-rested or who have nights of short sleep around the time of intense training are more vulnerable to colds and upper respiratory infections.

Getting significantly less sleep than is required affects the recovery process. In sleep deprivation studies, participants either get no sleep for long periods of time, or are asked to go to bed late/wake up early and get less sleep than they need. Evidence points in the direction of waking up early being slightly worse than going to bed late for recovery, and our experience likely matches this conclusion. We anticipate not feeling our best arriving on a late night flight, but feeling comparatively more tired when waking up at 3 a.m. to drive to the airport. (Note: these studies are not done with elite athletes, and are for obvious ethical reasons not conducted for long periods of time. Typically they are done for one to three days.)

It is not surprising that the greater the sleep deprivation, the greater the impact on performance. With some sleep loss, mood suffers. More negative moods and lower motivation are common even with a small amount of sleep deprivation. With longer sleep deprivation, cognitive performance suffers. Small mistakes can be made in decisions or technical execution. At 36 hours of sleep deprivation, physical performance begins to suffer. In ultra-endurance racing, competitors know they are in the danger zone when they approach 30 hours of competition with no sleep (the top competitors generally get two to two and a half hours per day, for seven to eight days, but then have heavy recovery consequences to pay later). Longer periods without sleep can be associated with visual, auditory, or sensory illusions (you may see, hear, or see things differently) or hallucinations (you experience things that are not real).

In Olympic sport, partial sleep deprivation is more relevant. Knowing that the margin at the top is increasingly small, coaches and athletes should be aware of the effects of even small amounts of sleep deprivation, and subsequent sleep debt on mood, mental, and physical aspects of sport demands. If a slightly slower reaction time, reading a play incorrectly, small technical execution error or slight decrease in power can make the difference between standing on the podium or not, then the importance of sleep must be made clear to athletes and even more so, the conditions leading to getting more sleep must be established.

Getting more sleep

Paying off sleep debt is generally associated with better functioning. A well-designed research study conducted in season with the Stanford men's basketball team shows that sleeping more was associated with better basketball performance, faster reaction time, improved mood, and feeling more energized. Sleep extension has also been conducted with football, tennis, and swimming teams at Stanford with similar positive results. The basketball players who agreed to sleep more each night gradually had faster sprint times and were better and more consistent shooters. (Requirements for participation were strict: only athletes without sleep difficulties were allowed to

participate, no alcohol or caffeine was allowed, the players had to sleep alone in their beds, all for the nine weeks of the study.) A researcher asked athletes to wear a sleep band on their wrist and sleep their normal amount for three weeks. The athletes were then asked to stay in bed for ten hours every night for the next six weeks. During the three week baseline, athletes reported they slept an average of 7.8 hours, and the sleep band clocked them in at 6.7 hours. Over the sleep extension weeks, athletes reported they were sleeping an average of 10.4 hours per night, and the band recorded 8.5 hours. There is nothing unique about collegiate athletes overestimating sleep: we all do it. We use the time we get into bed to the time we wake up as the duration of sleep, when in fact it takes some time to fall asleep, time to fall back asleep when we wake up, and given we are not conscious during sleep, we sometimes wake up but don't have conscious memory of this. It is common to overestimate sleep by an hour or more.

Sleeping approximately two extra hours per night for six weeks paid off on the court. In a modified "suicide" sprint times were faster by .7 seconds - a 5% improvement. Free throw accuracy went up nine percent and three-point accuracy went up 9.2 percent. The players did not practice extra during this time. Their teammates who did not participate in the study did not have similar improvements. The study was conducted following preseason, so the players should have been in good shape at the start of the study. The likely explanation for the improved performance was the additional sleep. It wasn't just basketball skills that improved: reaction times on a computerized assessment were faster. The players' moods were better - they felt significantly more vigor and less fatigue, depression, confusion, and anger. They also reported that they had faster recovery times, better lift and cardio sessions, and fewer injuries (there wasn't objective data on this, but their statements are worthwhile).

We can assume that collegiate athletes carry a large sleep debt, and as was shown in the Stanford study, the athletes benefitted from paying off that sleep debt with extra sleep. There isn't much data available on Olympic-caliber athletes and how much sleep debt they have. It is safe to assume that unless they are sleeping eight to ten hours per night/plus naps (or more depending on how heavy their training loads are), and consistently paying off sleep debts from travel, training etc., Olympic-caliber athletes may benefit from sleep extension too. At the end of the Stanford study, the basketball players stated they had previously underestimated the amount of sleep they needed for peak physical and mental performance, and in my experience, Olympic-level athletes underestimate this too. At the Olympic Training Centers, athletes also have potentially inaccurate ideas about how much sleep they really need. I often hear "I've gotten seven hours or less since high school, so that must be how much sleep I really need." What the athlete does not recognize is that he or she is likely chronically under-rested and no longer notices it. With clearer messages from coaches, teammates, and support systems, athletes can make consistent, adequate sleep a priority. Over the course of a competitive season, athletes are often run down physically, mentally, and emotionally. Getting sufficient sleep - and at points extra sleep - can be used to combat dips in performance toward the end of the season.

Sleep loss of as little as two to three hours can negatively affect performance. The type of task performed matters – typically repetitive tasks that do not require a lot of thought - like drills, or in a non-sport example, driving close to your home - are affected to a higher degree than tasks that are less repetitive or require more complex thought processes. We can usually increase our arousal enough during novel or complex tasks to perform well, but when we are used to the task, we are more likely to be affected by sleep loss.

Getting Good Sleep

Don't wait too late to go to bed. A delay in getting to sleep delays production of growth hormone. There is some evidence suggesting that simply resting in bed can be a sufficient amount of rest to jumpstart growth hormone production. Let your athletes know that when they feel tired at night, or if they plan to nap, don't busy themselves with unimportant things to do before getting in bed. Their goal should be getting ready to go to sleep, so the recovery processes can begin. Create the right environment: The room should be dark, quiet, and the right temperature (not too cold, and not too hot; this varies slightly according to individual preferences). Use an eye mask at night to keep ambient light out of the eyes, and in preparation to block out early morning sunlight. Eye masks can be worn during daytime naps, on the airplane, in hotel rooms, anywhere. Be aware of artificial light tricking your brain into thinking it is daytime and making you feel less tired. Use ear plugs, a white noise machine, or play relaxing music on your iPod to drown out background noise so you can remain asleep.

Commit yourself to a full night's rest. If you need eight hours of sleep per night, allow yourself at least eight and a half in bed to get that much. Remember that your athletes likely need closer to nine hours. If you are carrying a large sleep debt, allow yourself an extra hour of sleep per night for the next several weeks to pay it off and see how you feel. As an aside, the view that sleep is a sign of weakness was largely promoted by Thomas Edison after he invented the light bulb. He reported that there was an affordable way to be able to work all hours of the night (gas lamps were expensive, and candles weren't cheap either), and that he didn't sleep at night, rather he worked on more inventions. What he failed to mention was that he had a cot in his lab for naps, and it was regularly used for four- hour naps. Don't be fooled by Edison's white lie about not sleeping. We function at our best when we have light sleep debts, from getting regular and adequate sleep. If you coach in a sport culture where sleep is not valued and training on minimal sleep is admired, or you have a younger group of athletes who may not recognize the role of sleep in performance, share some sleep facts with your athletes and see if improved mood, sharper minds and better performance are enough of a hook to try sleeping longer.

Use naps, bright light exposure, and caffeine at the right times. The dip in circadian rhythm (when the alerting drive is lowest during the day) around 1 or 2 p.m. is an ideal time to nap. We are naturally more tired at this point in the day than a few hours earlier or later in the day, and falling asleep is easier. Coaches and athletes should know that napping is a skill. The more practice athletes have, the more efficient they will become at napping. In studies where the performance of "habitual" nappers is compared to non-nappers, the habitual nappers have improved

performance after a nap. Don't have your athletes try a nap for the first time at a competition. Rather, build short (or long) naps into the training schedule each week. NASA has shown that short naps - as short as 15 minutes - can improve cognitive performance, meaning concentration, alertness, and performance on complex tasks. Longer naps can work off sleep debt, and there is evidence that sleeping during the day signals the release of growth hormone, which is something athletes should use to their advantage. The pulse of growth hormone released may not be as large during napping compared to nighttime sleep, but when considering growth hormone produced naturally by the body, this might be a good way to increase its production. (One warning with naps is that some who have long naps later in the afternoon have difficulty falling asleep. Not all experience this. A longer nap before a late/long competition can help shift the second circadian peak later in the evening to boost performance.)

Bright light exposure can also help temporarily postpone the circadian dip around 2 p.m. As reported by Dr. Charles Samuels who works with Canadian Olympians, direct sun light exposure or the use of a therapeutic light box for approximately ten minutes prior to competition was associated with increased athletic performance. Bright light exposure at nighttime can have the effect of shifting circadian rhythms – it can shift rhythms toward the morning when light is used in the early morning, and can shift rhythms later toward nighttime when light is used in the evening. Keep this in mind when travelling with your team: when you are in France, you'll want to get out in the sun light first thing in the morning, and when you travel to China, try to get outside around sunset (or if you are travelling with a light box, you can use light exposure strategically in less sunny environments).

Caffeine can be used to increase arousal in the face of sleep debt. Caffeine is a Central Nervous System stimulant and is generally associated with improved cognitive performance. Again, don't use caffeine to fight drowsiness for the first time at a competition. Pre-competitive nerves/excitement increases arousal, and caffeine could raise arousal to an unpleasant level. Athletes who have high levels of sleep inertia and prefer not to nap to avoid this groggy feeling can benefit from a caffeinated drink (up to 150 milligrams) prior to a short nap. Caffeine will take 15 to 30 minutes to take effect, so allowing 30 minutes for a nap should leave the athlete with a boost from a nap along with the caffeine to fight off sleep inertia.

When Sleep is Abnormal

See a sleep specialist. Sleep medicine has advanced and there are good treatments for common sleep difficulties. Diagnosis is often an issue as doctors do not have adequate training in sleep medicine in school. If you or your athletes have any of the following symptoms, you should consider setting up an appointment with a sleep specialist:

- Excessive snoring-choking sound at night (caused by soft tissue in throat collapsing and preventing oxygen entering lungs, called sleep apnea). Typically teammates know who this is on the team and do not want to room with them as it is difficult to sleep next to a person with sleep apnea.

- "Creepy crawly" sensation in legs that goes away with movement. Sometimes you wake up moving your legs.
- Ongoing difficulty getting to or staying asleep that is not associated with a stressful life event that will pass quickly (specifically meaning years of difficulty sleeping, not the difficulty due to arrival of a baby, selection time, etc., that athletes know will soon pass)

Coaches and athletes should have realistic expectations about what sleep can do for performance. On the recovery side, it moves athletes towards repair from wear and tear and towards memory consolidation from what was learned in the day's training session. On the performance enhancement side, removing sleep debt as a barrier to performance, may in fact improve performance. Good sleep can prevent an athlete from performing at a slightly sub-optimal level, and it might speed recovery. It will generally improve mood and levels of alertness, both of which affect motivation. As a coach, you might not see the nine percent increase in aspects of your athletes' performance, but a single percentage point might make a difference. The take away message from this review is that coaches, athletes, and support teams can use optimal sleep as an element to incorporate into training. The research evidence is compelling for what sleep can do to enhance performance for athletes, and remember, coaches need their sleep too.

Kazuhiko Kanno of Japan is challenged by Will Groulx and Seth McBride of USA during the Wheelchair Rugby Pool Phase Group at 2012 London Paralympic Games. (Photo by Christopher Lee/Getty Images)

Athletes' Accounts of Good and Bad Coaching Behaviors: Listen Up Coaches!

Diane M. Culver, Tiago Duarte, Sarah M. Cybulski, & Martin Camiré
School of Human Kinetics, University of Ottawa

"My basketball coach was a good coach because she broke down the information she was teaching to make sure that everyone understood what was going on and understood the task. She made it fair for everyone with playing time in practices, games, as well as competition. I n practices, she always made good demonstrations and explained everything she expected us to do. When it was our time to try out the new skill, she gave us good feedback. She always encouraged us, was enthusiastic about the game, and made us work hard. She joked around with us; she made sure that our team was 'connected'" (Grade 9-10 school team experience).

"This was the last time I would play competitive basketball. During my last year of school I played for an extremely "COMMAND STYLE" coach. I mean, this guy was extreme. He yelled at the players. He never answered questions. You did exactly as he said or you sat on the bench. He openly criticized his players and was not compassionate or empathetic in the least. One game he was screaming and blaming us in the locker room at half time, and I had had enough. I took off my jersey and threw it in his face and told him that he took the fun out of basketball" (Grade 12 school team experience).

Introduction

The two quotations above, both recounted by university students who were looking back at their high school sport experiences, epitomize good and bad coach behaviors and how these behaviors affect young athletes. Sport is an area in which a large proportion of youth participate (Camiré, Trudel, & Forneris, 2009; Gould & Carson, 2008). When sport is structured appropriately, it has been shown to have the potential to lead to positive youth development (Fraser-Thomas, Côté, & Deakin, 2005; Wells & Arthur-Banning, 2008). Research tells us that leadership, sportsmanship, positive self-esteem, and teamwork are some of the qualities that youth can develop while engaged in sport (Eccles & Barber, 1999; Fraser-Thomas et al., 2005; Larson & Verma, 1999). Although there are a number of positive developmental outcomes attributed to participation in sport, it must be noted that mere participation does not ensure that youth will have positive experiences (Lacroix, Camiré, & Trudel, 2008).

Negative experiences in sport continue to be experienced by youth. These negative experiences can even, in some instances, lead to sport dropout (Scanlan, Babkes, & Scanlan, 2005). Given the powerful influence that sport can have on youth, it is important to ask why some sporting experiences are positive and others are negative? It has been suggested that the coach possesses the

greatest ability to influence the experiences youth have in sport (Hansen, Larson, & Dworkin, 2003; Vernacchia, McGuire, & Cook, 1996). In addition, Smith and Smoll (1996) have shown that a single negative experience with a coach can often have proportionally more influence on a youth's sport experience than a single positive experience.

A recent study conducted by Fraser-Thomas and Côté (2009) examined 22 youth male and female swimmers to understand what contributed to their positive and negative developmental experiences in sport. The researchers found a number of determinants influencing the outcome of athletes' experiences. Among these, the coach was cited as one of the major contributors for both positive and negative experiences. The athletes identified seven key themes that contributed to a positive developmental experience with respect to coaches: (a) teaching goal setting, (b) developing relationships, (c) dealing with emotions, (d) providing constructive feedback, (e) pushing athletes to be their best, (f) demonstrating belief in athletes' capabilities, and (g) good communication skills. The results showed that the coaches who positively influenced athletes' experiences were able to consistently read situations well and respond in an appropriate manner. Negative experiences, however, were linked to bad coaching behaviors. There were five main coaching behaviors that elicited negative experiences: (a) poor communication skills, (b) player favoritism, (c) intimidation, (d) poor role modeling, and (e) inappropriate behaviors. The aforementioned negative coaching characteristics caused athletes to experience feelings of unease, fear, and in some cases, resentment towards the sport.

In another study, Becker (2009) examined 18 elite male and female athletes from a variety of sports to understand their experiences of great coaching. Becker's findings were similar to those of Fraser-Thomas and Côté (2009) and highlighted that it was not what coaches say or do, but how they say or do something that determines the effect on their athletes. Leading by example, treating everyone equally, and creating good relationships were all identified as behaviors of great coaches.

Dworkin and Larson (2006) examined adolescents' negative experiences in organized youth activities. Although the activities were not exclusive to sport, many of the findings were relevant to sport and coaching. Similar to the previous studies, Dworkin and Larson found that adult leaders who displayed (a) favoritism, (b) poor communication skills, (c) inappropriate behaviors, and (d) disrespectful and demeaning actions resulted in negative experiences for youth. The results also linked negative experiences to unknowledgeable leaders and leaders who tried to be more of a friend than a leader.

The purpose of this study was to help coaches by providing them with real-life examples of athletes voicing how coaching behaviors positively or negatively affected their sport experiences. We therefore were trying to answer the question, "What are young adults' perspectives on positive (good) and negative (bad) experiences with sport coaches?" This information can help coaches to understand the importance of having a coaching style that is sensitive to the wants and needs of athletes. In agreement with Fraser-Thomas and Côté (2009), Becker (2009), and Dworkin and Larson (2006), we believe that in order to gain further insight into how coaches positively and

negatively influence youth experiences in sport, we need to delve into the topic of coaching from the athlete's perspective. For this reason we have chosen to investigate the responses of a third year university class assignment aimed at identifying the intricacies of good and bad experiences with coaches lived by the students in the class.

Method

Participants

The athletes' experiences/stories were collected in an undergraduate university coaching course for students majoring in human kinetics. All students taking this course have participated in organized sport or physical activity. In total, 154 out of a possible 207 students (two classes of 112 and 95 students) consented to participate in the study. The students had participated in a wide range sports including ice hockey, volleyball, football, basketball, soccer, track and field, kayak and canoe, alpine skiing, ringette, biathlon, and others.

How the Athletes' Voices Were Heard

In an online assignment at the start of the term, students were asked to answer the following question: "Describe a good and/or bad coaching experience you lived when you were an athlete." The purpose of the assignment was to get students to reflect on the types of coaching behaviors they would want to display and/or avoid when they themselves enter into the realm of coaching.

It is the written (electronic) responses to this assignment that were analyzed in order to answer the research question. The lead researcher had previously taught the same third year coaching course twice and had used the assignment on both occasions. When she and her graduate student read the reflections, they were struck by the power of the responses and decided to conduct a research project for the following years' class. Our university's Research Ethics Board approved this study. Once the course was completed, the research assistant retrieved the consenting students' electronic 'experiences' assignment, removed all identifiers, and gave each student a participant code. Overall, 118 positive experiences and 106 negative experiences entries were provided by the participants. The length and detail of the responses varied from 33 to 626 words as no specific guidelines for answers were provided.

Jarvis (2006, 2009) and Moon (1999, 2004) remind us of the important role that emotions play in learning. For Jarvis (2009, p. 141), "Those experiences that are emotionally charged are more likely to be recalled at a later date than others that are more ordinary or common. Hence, our biographical memory is likely to be biased in favor of those emotionally charged experiences. As researchers who conduct studies about coach education and coach learning, we felt that providing coaches with the opportunity to experience the athletes' views directly through their own words could have a powerful impact on coaching practices, which is the ultimate goal of research.

Data Analysis

The responses were first separated into positive and negative experiences. Braun and Clarke's (2006) thematic analysis was then conducted on both sets of experiences. The data were read several times, with the researchers noting athletes' responses and then matching coaching behaviors in the margins to create themes. They then grouped these themes into two main categories related to the feelings that the participants had experienced. The categories included themes such as fairness, skill development, fun, favoritism, overemphasis on winning, and fear or frustration. The final step of the analysis was going through the data to look for the most vivid examples that best represented the themes.

Coaching Behaviors Through the Eyes of Athletes

Negative Experiences

Displaying favoritism, limiting opportunities for success, instilling a fear of failure, being outcome-oriented, and communicating poorly were the main coaching behaviors that our participants attributed to their negative experiences in sport. For each of the aforementioned coaching behaviors, one or more stories describing athletes' experiences are provided.

Favoritism. No sport team is composed of equally talented athletes. Results clearly indicated that, for the most part, athletes were aware of where they stood ability-wise in comparison to their peers. Many indicated how in a team sport, the focus cannot be merely on the team's star player—it takes an entire team to win and the athletes who fill specific roles are just as important. Consequently, it is the responsibility of the coach to ensure that all athletes feel valued. If the coach neglects to do so, it can be detrimental to an athlete's confidence and motivation to play. Athlete 12 wrote about his experience dealing with favoritism:

> When I was young and first began playing minor hockey, my coach never paid any attention to the beginner players. He never helped us improve our skills because his focus was al ways on the better players. He never motivated us. All he did was simply pay attention to the well-developed players. The coach's choices led me to have a low self-esteem level as well as a lack of passion for what is considered Canada's greatest game. I stopped playing hock ey for three years because he made me feel as if I was inferior to the better players on the team; as if I would never amount to anything in hockey.

An elite rugby player (Athlete 29) described how favoritism can affect not only those directly involved, but also the rest of the team:

> The head coach of the team was very difficult to work with—she picked favorites early on in the year and was extremely negative towards a selected few players. This negativity towards a few players caused a negative view of the coach because, as teammates, we saw that they did not deserve to be treated this way.

Limiting opportunities for success. While related to favoritism, this behavior is specifically about playing opportunities. The athletes mentioned that a bad coaching behavior, whether it was on

purpose or not, consisted of reducing an athlete's opportunity to play, achieve, and learn. This behavior, in turn, lowered athletes' self-confidence. By reducing playing time, coaches indirectly communicated to their athletes, "I do not believe in your abilities". Some athletes mentioned how such an experience became a self-fulfilling prophecy whereby athletes who felt that their coaches did not believe in them lost belief in themselves and their performance was diminished. Athlete 27 was subject to this type of behavior that resulted in a severely damaged self-confidence:

> During my second to last year of play, I made the team and was excited for the upcoming season. My excitement slowly drifted to sorrow and resentment. I do not feel that I was ever given any chance to succeed. For most of the season, I rode the bench. When I did have the opportunity to play, I was overcome with such pressure that, for the most part, I failed. As the season neared to an end, I was lost and my confidence as an athlete was fleeting. My coach had completely broken me down. To this day, I feel that a small part of me still needs to be fixed in some way or another.

Fear of failure. According to the athletes, coaches who created an environment that elicits a fear of failure in athletes had similar repercussions as limiting opportunities to succeed. It appeared that coaches who instilled fear were robbing their athletes of the ability to express creativity and enjoyment in sport. A common theme discussed by the athletes was how some coaches provided feedback in the form of yelling and humiliation, resulting in a fear of failure. Athlete 132 stated how her coach nurtured a fear of failure:

> [My] coach had no discretion and would punish and humiliate all players on the team when a mistake was made or when we did not execute a play the way he envisioned it. This was a bad experience for me because it reduced my creativity on the field. I was in constant fear of making a mistake and being embarrassed for it. As my creativity decreased, my level of play dropped off and I lost my love for the game.

Similarly, Athlete 147 wrote about how the fear of making mistakes consumed her entire ability to perform in both practices and games:

> One of the coaches I had was continuously yelling at me whenever she would see me do something not perfect. I became so afraid of making mistakes that I could not think of any thing else during her practice sessions except to "not make any mistakes." I was so stressed out that I was not able to let my body move to the music and use my creativity.

Outcome oriented. Winning and losing are the two outcomes that are inherent in sport; however, the value of a game, tournament, or season cannot be weighted solely on the outcome. Our participants felt that other aspects of practicing sport must be evaluated when determining the success of a team or an individual, such as effort or perseverance. If coaches neglected to provide feedback concerning the performance of their athletes and focused their feedback solely on the outcome, they essentially devalued the effort put forth by the athletes, which is how Athlete 21 felt:

> We had just finished playing a qualifying game in a tournament and lost to a fairly strong team. Although each player had tried his hardest, our coach was not pleased. He came into the dressing room after the game—very angry—and gave us a speech making us feel horrible and disappointed in ourselves for the loss. This was a bad experience because the coach was very negative, causing me to feel poorly about my performance, although I had tried my best.

Athlete 88 shared a similar view:

> During a timeout, our coach came out and yelled at us because we had been missing our shots. He should have come out and told us what it was in our shots that we were doing wrong so we could correct it. Instead, all he did was yell at us, telling us that we sucked, and we did not know what we were doing wrong.

Poor Communication. Poor communication was cited by the athletes as leading to negative experiences in sport. In both of the citations below, athletes described situations in which poor communication resulted in negative experiences:

1. My rugby coach pointed her finger at me during the half-time pep-talk and proceeded to yell at me in front of the entire group. She blamed our style of play on me as an individual and pointed out each and every one of my mistakes on the field. Being humiliated in front of my friends and teammates really affected me. As a competitive athlete, I dislike failure and strive to do my best every time I hit the field. Although I appreciate constructive criticism and feedback, the manner in which I was yelled at functioned to weaken my play when I returned to the field. (Athlete 38)
2. Our elite women's hockey team was so inconsistent and we were digging ourselves a hole. Whenever there was conflict within the team, the coach wouldn't step in. He would say, "I'll leave it up to you girls to decide the consequences," which…resulted in even more tension within the team, and created cliques and divisions. Being an assistant captain, I found this so frustrating. There was a complete lack of communication and he didn't seem to see this. Whenever I would go up to his office to talk to him about arising issues he was never there. The rare times that I did speak with him, he would never take in any of my ideas and actually follow through with them. I might as well have been talking to a wall. When our season finally came to an end, I wasn't sad or disheartened, but felt relieved more than anything. There was no doubt this was the most frustrating and emotionally draining year of hockey I have ever played. (Athlete 80)

<u>Positive Experiences</u>

The results showed that coaches who demonstrated fairness, the ability to allow athletes to make mistakes, controlled emotions, and goal setting afforded athletes with positive experiences through sport.

Fairness. Many of the athletes in this study attributed their good sporting experiences to coaches who created a fair and inclusive environment. Fairness was related to both playing opportunities during games and coaching behaviors that occurred in the practice environment. One of the reasons that fairness was deemed essential for creating a positive sporting experience is that in a fair environment, all of the athletes are recognized for their development and improvements:

> I had a coach who stood out from the rest. I began playing recreational hockey at a fairly late age and my fellow teammates had a lot more experience than I had. However, throughout the season, my coach made me feel part of the team and increased my self-confidence. My coach treated each player fairly and taught different drills that met each individual's own level of ability. He provided constructive criticism that enabled me to improve drastically over the season. Whenever I would feel that I could not do a task, he would motivate me and assure me I was able to complete the task. I feel all of these…qualities made him an excellent coach and resulted in a good experience for me as an athlete. (Athlete 95)

Allowing athletes to make mistakes. It is an inevitable reality that athletes, regardless of their level of ability, will make mistakes during competition. Many of the athletes in our study felt that when their coaches did not punish them for making mistakes, but rather helped them learn from the situation, it showed that the coach believed in them. Athlete 17 talked about an experience she had that highlights the importance of patience and allowing for mistakes. She described how her coaches' behavior ensured that her confidence would not be destroyed:

> A good coaching experience that I encountered as an athlete occurred during one of my first games playing for my first competitive soccer team. When it came to the game, I became very nervous and was consistently making mistakes I usually do not make. By halftime, I thought…my coaches would have me sitting on the bench; I was frustrated with my self. To my surprise, one of my coaches approached me at halftime, calmed me down, and told me a similar situation happened to him. I found this to be quite helpful as it made me realize that my coaches put me on the team for a reason…they believed in me. They did not give up on me and by keeping me on the field, they gave me the confidence I needed to start playing my game again.

Controlled emotions. Frustration, disappointment, and anger are some of the emotions that can cloud a coach's judgment and compel him/her to act irrationally. The athletes in this study mentioned how coaches who were able to control their emotions and limit their irrational outbursts created a pleasant environment in which to compete. Athlete 91 discussed how his former coaches' behaviors actually inspired him to become a coach:

> That year, [my] coaches wanted to have fun and taught the skills needed to succeed. It was my favorite year of hockey and it was the year I learned the most about the game. The coaches never got mad, or when they did, they calmed down before expressing themselves. They were patient with the team and energetic to get on the ice for practices. They are the reason I got interested in coaching minor hockey.

Goal setting. Goal setting is a very useful tool that coaches can use to develop an athlete's confidence because it allows for individual achievements—as well as performance achievements—to be recognized and evaluated. Participants expressed how coaches who used goal setting created an environment that promoted development and allowed them to feel confident in their abilities, regardless of outcomes. Athlete 89 explained:

> My entire 2009-2010 curling season was with a really good coach. One particularly good moment came on the heels of our lowest moment of the season. We had just lost our most important game of the year and our coach brought us together and told us how proud he was. He reminded us how we had said we were going to do everything we could to be the best and we had done that. We accomplished a lot of goals and had a successful season overall. In that moment, when we were all feeling pretty low, our coach managed to bring us back up.

What We Have Learned From These Athletes

The emotionally charged reflections that have given life to this article have made it clear that if coaches want to provide a positive sporting experience for their athletes, they must choose their behaviors wisely and make the development of their athletes a priority. The results of our study support past literature, indicating that the coach plays a major role in influencing an athlete's enjoyment of sport (both positively and negatively) (Hansen et al., 2003; Fraser-Thomas & Côté, 2009; Vernacchia et al., 1996). The athletes spoke of many coaching behaviors including favoritism, providing constructive feedback, intimidation, and inappropriate behaviors.

Our findings also support those of Dworkin and Larson (2006) in the broader context of organized youth activities where favoritism, inappropriate adult behavior, and disrespectful and demeaning actions were found to result in negative experiences for participants. The findings of this study also concur with Becker's (2009) study in which the 18 athletes sampled placed importance on coaches behaving in appropriate ways, on coaches being equitable in their treatment of athletes, on coaches orchestrating well-organized purposeful practices, and on coaches establishing good communication.

Good communication, favored by many of the athletes, underlies good relationships that provide the basis for the art of coaching. A number of anecdotal stories of successful coaches can be used to reinforce this notion. For example, Mike Krzyzewski (Duke University men's basketball) cited communication as the first of five essential qualities for making a great team (Krzyzewski & Phillips, 2001). Similarly, Lady Monarchs' golf coach Kim Kincer (five-time NCAA national championship winner) emphasized that good communication skills are not only important to coaches, but should also be deliberately taught to athletes (Kincer, 2005).

Academically, Bloom (1996) found that effective communication was one of the distinguishing characteristics of an expert coach and stated, "Learning when to communicate with players is an intangible art, a skill that separates the competent coach from the great one. It takes years to learn to distinguish the best communication style for each player" (p. 165). While it is not impera-

tive that coaches model all the behaviors of expert coaches (Wright, Trudel, & Culver, 2007), being a good communicator is fundamental to good coaching as it is through communication that the coach develops the athlete (Vealey, 2005).

Both positive and negative experiences were described by our athletes on the subject of how coaches handle the issue of athletes making mistakes. We are reminded of the famous quote from the late Vince Lombardi (former NFL football coach), "The greatest accomplishment is not in never falling, but in rising again after you fall." Without trying there is no doing, therefore, athletes should not be afraid of making a mistake because of a coach's inability to accept error. This is reminiscent of another real-life coaching example. John Wooden (former NCAA basketball coach) took an excerpt from George Moriarty's poem and used it, essentially, as a motto: "Who can ask more of a man than giving all within his span? Giving all, it seems to me, is not so far from victory." Thompson (2003) promoted a coaching approach for positive youth development that makes the link between allowing mistakes and learning. His concept of the ELM tree of mastery encourages coaches to reward effort (E), to nurture continuous learning (L) through mastery goals versus goals that focus on comparison with others, and to recognize that mistakes (M) are part of learning and that coaches should, therefore, react appropriately when athletes do make mistakes.

The methodology used in this study had a number of strengths. First, we were able to recruit an eclectic group of athletes who practiced a wide range of sports, who had various levels of experience, and who played sport in different contexts. Second, by asking the athletes to reflect on past experiences with former coaches, it was possible for them to share their perspective freely without the fear of repercussions. Athletes, moreover, discussed experiences that mostly occurred a number of years prior and were retrospectively in a position to describe how these experiences influenced their development. Finally, we feel that the open-ended nature of the question that our coaching class answered was a strength of the study because it allowed them to freely choose the experiences they wished to describe.

Not surprisingly, given the relationship between emotion and learning (Jarvis, 2009; Moon, 1999), many of the students' answers were laden with emotions. The openness of the question left room for the participants to write about the experiences that were most memorable to them. For those of us who coach and are involved in coach education, it is difficult to remain placid when reading their experiences. As Nicol (2008) instructed, we hope the voices of these athletes have evoked emotion and appealed to the senses.

Practical Implications

Based on the results of this study, we suggest five practical strategies that have been designed to help coaches become more aware of their behaviors and to increase their chances of creating positive sport experiences for their athletes. These strategies are aimed at maximizing the positive experiences and minimizing the negative sporting experiences lived by athletes. We, therefore, suggest that coaches:

1. Communicate, communicate, communicate! Remember that listening and checking for understanding is at least half of communication. Remaining silent leaves athletes open to interpret the message. Coaches should create an atmosphere of openness in which athletes can feel comfortable to provide them with feedback. It may be appropriate to have an athlete leader (e.g., team captain or veteran) who can voice other athlete's concerns to the coach. The selected athlete needs to be one with whom all the other athletes feel at ease.
2. Allow your athletes to make mistakes. Coaches who scold their athletes for making mistakes leave them feeling fearful. Such behavior has important implications for learning because it can keep athletes from engaging in the final stage of skill development, that is, creativity. During the consolidation, maintenance, and even refinement stages, it is, of course, important for athletes to practice skills as near as possible to model execution. Allowing athletes to make mistakes, however, affords them the very important opportunity to learn from experience. It also makes room for them to extend their abilities.
3. Control your emotions and act appropriately. Athletes like coaches who are good role models, but a coach who "loses it" can embarrass his/her athletes. Coaches need to keep in mind that athletes have their own expectations and when these are not met, they will already be disappointed. A coach acting irrationally (e.g., yelling at athletes) will make the athlete feel worse and has little chance of leading to success.
4. Discuss team and individual goals with athletes. Many coaches do set goals with their athletes at the start of the season, but few coaches take the time to sit down and review/adjust goals as the season progresses. Be sure to revisit goals regularly such that expectations are clear to athletes. When athletes are not performing as well as originally anticipated, it is likely that they will feel pressure from expectations that are beyond their capabilities. Making a plan with athletes that specifies what the athlete and the coach can do to help improve performance is the best solution.
5. Pair up with another coach in your club or league to observe each other at work. Use this opportunity to provide feedback on elements such as communication (including feedback to athletes), equity, organization, and technique and tactics (if appropriate). To change behavior, one needs to be made aware of any issues. Another coach observing you can also reinforce positive behaviors and provide insight about how your athletes respond to your behavior.

Finally, we add a cautionary note. While we believe that these practical suggestions provide good general principles that coaches can follow, it is important to realize that every athlete is unique. Underlying all good coach-athlete relationships is an understanding of what types of coach behaviors are motivating for that individual athlete and what the athlete prefers in a coach's style.

To conclude, we turn to a letter that John Wooden sent to his athletes:

> I certainly will not treat you all the same. However, I will attempt to give each player the treatment that he earns and deserves according to my judgment and in the best interest of the team. I know I will not be right in all of my decisions, but I will attempt to be both right and fair (Wooden & Tobin, 1988, p. 238).

References

Becker, A. (2009). It's not what they do, it's how they do it: Athlete experiences of great coaching. International Journal of Sport Science and Coaching, 4(1), 93-119.

Bloom, G. A. (1996). Life at the top. In J. H. Salmela (Ed.), Great job coach! (pp. 37-65). Ottawa, CAN: Potentium.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77-101.

Camiré, M., Trudel, P., & Forneris, T. (2009). Parents' perspectives on the practice of high school sport in a Canadian context. Qualitative Research in Sport and Exercise, 1(3), 239-257.

Dworkin, J., & Larson, R. (2006). Adolescents' negative experiences in organized youth activities. Journal of Youth Development, 1(3), 1-18.

Eccles, J., & Barber, B. (1999). Student council, volunteering, basketball, or marching band: What kind of extracurricular involvement matters? Journal of Adolescent Research, 14, 10-34.

Fraser-Thomas, J., & Côté, J. (2009). Understanding adolescents' positive and negative developmental experiences in sport. The Sport Psychologist, 23, 3-23.

Fraser-Thomas, J. L., Côté, J., & Deakin, J. (2005). Youth sport programs: An avenue to foster positive youth development. Physical Education & Sport Pedagogy, 10(1), 19-40. doi: 10.1080/1740898042000334890

Gilbert, W., Gilbert, J., & Trudel, P. (2001). Coaching strategies for youth sports part 2: Personal characteristics, parental influence, and team organization. Journal of Physical Education, Recreation and Dance, 72(5), 41-46.

Gould, D., & Carson, S. (2008). Life skills development through sport: Current status and future directions. International Review of Sport & Exercise Psychology, 1, 58–78.

Hansen, D., Larson, R., & Dworkin, J. (2003). What adolescents learn in organized youth activities: A survey of self-reported developmental experiences. Journal of Research on Adolescence, 13(1), 25-55.

Jarvis, P. (2006). Towards a comprehensive theory of human learning. New York, NY: Routledge.

Jarvis, P. (2009). Learning to be a person in society. London, UK: Routledge.

Kincer, K. (2005). Coach-athlete relations. In C. Reynaud (Ed.), She can coach! (pp. 191-201). Champaign, IL: Human Kinetics.

Krzyzewski, M., & Phillips, D. T., (2001). Leading with the heart: Coach K's successful strategies for basketball, business, and life. New York, NY: Warner books.

Lacroix, C., Camiré, M., & Trudel, P. (2008). High school coaches' characteristics and their perspectives on the purpose of school sport participation. Coaching Science, 2(2), 23-42.

Larson, R. & Verma, S. (1999). How children and adolescents spent time across the world: Work, play, and developmental opportunities. Psychological Bulletin, 125, 701-736.

Moon, J. A. (1999). Reflection in learning and professional development: Theory and practice. London, UK: Kogan Page.

Moon, J. A. (2004). A handbook of reflective and experiential learning: Theory and Practice. London, UK: Routledge Falmer.

Nicol, J. (2008). Creating vocative texts. The Qualitative Report, 13(3), 316-333.

Scanlan, T., Babkes, M., & Scanlan, L. (2005). Participation in sport: A developmental glimpse at emotion. In J. Mahoney, R. Larson, & J. Eccles (Eds.), Organized activities as contexts of development (pp. 275-310). Hillsdale, NJ: Lawrence Erlbaum.

Smith, F., & Smoll, R. (1996). Children and youth in sport: A biopsychosocial perspective. Chicago, IL: McGraw-Hill.

Thompson, J. (2003). The double-goal coach. New York, NY: HarperCollins.

Vealey, R. (2005). Coaching for the inner edge. Morgantown, VA: Fitness Information Technology.

Vernacchia, R., McGuire, R., & Cook, D. (1996). Coaching mental excellence: It does matter whether you win or lose. Portola Valley, CA: Warde Publishers Inc.

Wells, M., & Arthur-Banning, S. (2008). The logic of youth development: Constructing a logic model of youth development through sport. Journal of Park and Recreation Administration, 26(2), 189-202.

Wooden, J. R., & Tobin, J. (1988). They call me coach. New York, NY: McGraw-Hill.

Wright, T., Trudel, P., & Culver, D. (2007). Learning how to coach: The different learning situations reported by youth ice hockey coaches. Physical Education and Sport Pedagogy, 12(2), 127-144.

The Periodization of Mental Skills Training in Coaching

Duncan Simpson, PhD, CC-AASP, Assistant Professor in Sport, Exercise & Performance Psychology, Barry University
Greg Young, PhD, CC-AASP, Senior Lecturer in Sport Development & Coaching, Liverpool John Moores University, UK
Phillip G Post, PhD, CC-AASP, Assistant Professor in Sport Psychology & Motor Learning, New Mexico State University
Steve McCrath, MSc, Head Men's Soccer Coach, Barry University

At the 2013 National Coaching Conference in Colorado Springs, two of the current authors presented on how coaches could use the concept of "periodization" to implement effective mental skills training (MST) with their teams and athletes (See Simpson & McCrath, 2013). During the workshop case studies and examples from the authors' applied work with collegiate soccer were use to demonstrate the core concepts behind periodization. This article is a follow-up to that presentation and aims to provide coaches with a framework from which they can integrate mental skills into practice and competition while applying the principles of periodization.

Coaching Philosophy and Team Mission

Before implementing the principles of periodization for MST, we recommend that coaches first reflect on their personal coaching philosophy in order to consistently prepare their athletes/teams optimally for competition from year to year. Coaching literature (see Martens, 2004) and anecdotal accounts from successful coaches such as John Wooden, Pat Summit, Bill Walsh, Phil Jackson, and Mike Krzyzewski suggest that in order to successfully plan long-term coaches should clearly define their coaching philosophies. Martens (2004) stated that a coaching philosophy should consist of what you want to achieve (i.e., your objectives) and how you will achieve this (i.e., your beliefs on how to achieve those objectives). To begin clarifying a coaching philosophy we suggest that coaches reflect on the following questions:

- How do I currently coach?
- What characteristics/qualities do I want to be known for?
- What is it liked to be coached by me?
- How do I want to communicate with my players/athletes?
- What would I like my players/athletes to say about me when I retire?

Ultimately, a coaching philosophy provides a consistent framework for a coach to reference when making difficult decisions and facing ethical dilemmas.

In addition to developing one's coaching philosophy, several coaches and sport psychology consultants advocate for sport teams to develop a mission statement. Team mission statements serve to clarify team goals (Janssen, 1999), and provide an agreed upon direction for the season. We recommend that coaches encourage their athletes/teams to develop a team mission statement at the start of each competitive season (e.g., teams should identify the behaviors needed to have a successful season, the commitments they are willing to make, the work ethic needed in practice to achieve their goals, and the style of play they want to be known for, etc.). While coaches should assist in creating the team mission it should be driven and shaped by athletes. When athletes develop the team mission statement it promotes a greater sense of ownership and commitment to the team goals. Together the development of a coaching philosophy and team mission statement provide a foundation from which coaches can think "big-picture" and begin to build their long-term plan for effective training from year to year.

Periodization

The concept of periodization has been around for several decades in the strength and conditioning literature. Essentially the goal of periodization is to ensure an athlete's performance peaks at the right times (usually aligned with a competition or specific tournament), while simultaneously avoiding problems such as overtraining, staleness, burnout, and injury (Holliday et al., 2012; Wathen, 1994). Periodization must be carefully planned to maximize all areas of performance, while also considering the ongoing development of the athlete (both mentally and physically). Holliday et al., (2012) summarized the concept by stating "periodization is designed to account for individual needs, maximize individual development, and peak athlete for major competitions and calls for training cycles to be developed around personal and scheduling considerations" (p. 203). In a previous Olympic Coach magazine, DeWeese, Gray, Sams, Scruggs & Serrano (2013, winter) proposed a new definition of periodization:

The strategic manipulation of an athlete's preparedness through the employment of sequenced training phases defined by cycles and stages of workload. These workloads are varied in order to facilitate the integration of planned programming tactics that will harmonize the relationship between training-induced fatigue and accommodation. Further, the process of balancing stress stimuli and recovery periods should be based on advanced knowledge regarding the physiological, biochemi¬cal, and psychological principles related to human performance. Thus, an individual's response to training can more effectively be measured and be made apparent through the execution of a com¬prehensive athlete-monitoring program and ongoing scientific study (p. 14).

This new definition promotes a modern approach to periodization and highlights the need for comprehensive athlete-monitoring systems by using empirical evidence.

Cycles of Periodization

In DeWeese and colleagues new definition of periodization the terms "cycles" and "stages" of work describe critical components. These specific periods of time are used to organize training over the long-term and each cycle or stage should have a predetermined goal (e.g., technical development,

physical fitness, etc.) aimed at helping athletes peak their performance at the right moment (Holliday et al., 2012). While different terminology has been used in the literature to describe these cycles or stages of work, Wathen (1994) uses the terms preparatory, competitive, peaking, and recovery, which the current authors have found to better resonate with coaches. The four stages progress sequentially and are equally vital for effective periodization. Holliday et al. (2012) described the four stages as follows:

- Preparatory stage: usually occurs during the off-season and is designed to prepare athletes for the upcoming rigors of competition.
- Competitive stage: the regular competitive season and is designed for consistent play.
- Peak stage: the postseason or major competition(s) when athletes must maximize their performance.
- Recovery stage: following the conclusion of the peak stage and is designed for physical and mental recuperation.

Through our applied experience we have found that irrespective of the sport, coaches can break down a season using these four stages. However, some sports may require athletes to peak at multiple times during a calendar year (e.g., track and field athletes aiming to peak at specific meets/competitions) whereas, other sports may just have one peak stage (e.g., college soccer and NCAA championships). For coaches to successfully implement these stages into practice it is important that they look at least one calendar year in advance and break down the season into these four stages. After breaking down the season, coaches should write down what the focus should be during each stage (e.g., technical development, tactical development, physical development, mental skill development, etc.). For example, in the preparatory stage it may be more pertinent for coaches to focus on the physical (e.g., fitness) and technical development whereas, the focus of the competitive and peaking stages may shift focus towards tactical and mental skills.

Workload

A key periodization principle included in the DeWeese et al. (2013) definition is workload. To avoid the detrimental effects of training (e.g., overtraining, staleness, burnout and injury) workloads for athletes must be individually monitored and altered to ensure it is balanced. Workload consists of two main concepts, volume and intensity. Volume relates to amount of training (i.e., time, number of reps etc.), whereas intensity relates to how hard that volume is executed. The concept is relatively simple; if the volume (amount) of training is high the relative intensity has to be lower, but if the intensity level is high then the volume must decrease. High volume and high intensity training for sustained periods is likely to result in the detrimental effects of burnout, staleness, or overtraining (Holliday et al., 2012). In order to strike a suitable balance between volume and intensity coaches must know and understand the capabilities of their athletes. As Pedemonte (1986) states “we can take full advantage of periodization only when we know the objective basic laws of this process and when we really know the man who is in front of us” (p. 27). As all athletes are different, some may be able to sustain higher intensity workloads and recover quicker, whereas others may take longer

to recover, “one cannot infer individual athletes – especially in the high-performance setting – will respond to training in the same manner” (DeWeese et al., 2013, p. 13). As such, it is important for coaches to tailor the workload to the their athletes rather than creating a general plan for all to follow.

Psychological Principles of Human Performance

In their discussion of periodization, DeWeese and colleagues (2013) mentioned the importance of psychological principles related to human performance. Mental skills training (MST) is the process by which practitioners teach athletes and coaches psychological principles. However, Holiday et al. (2012) suggest those implementing MST programs have largely neglected the concepts of periodization. Therefore, the focus of the remainder of this paper is to provide coaches with a systematic process by which to integrate mental skills training into their practices.

In order to deliver the most comprehensive training for their athletes, coaches must consider all four areas of performance: technical, tactical (strategy), physical (inc. nutritional) and mental (Wrisberg, 2007). It should be noted that this four-pronged approach is also the shared coaching philosophy of the current authors. Generally coaches regularly focus their expertise on the technical and tactical elements of their athletes’ performance. To assist with the physical part of athletes’ performance preparation expert support staff are typically utilized (e.g., strength and conditioning coaches). Unfortunately MST is rarely delivered in the same systematic and consistent manner as physical, tactical, and technical training. While some coaches undoubtedly have a strong understanding of all four elements of performance and do an excellent job of preparing athletes, it is our experience that MST is the least understood, most often overlooked, and the most intimidating for coaches to incorporate. This is certainly not meant as a criticism, but rather serves to highlight where coaches may want to develop in their craft. We also recognize that some coaches do not have access or the funds to afford a sport psychology consultant and therefore have to take on the role themselves. To assist coaches in implementing MST we will review a four-stage approach that provides any coach a viable method by which to integrate mental skills into his or her practices and competition. It is important to note that implementing MST is a long-term process requiring consistency just like any attempt to improve physical elements of performance.

Although professionals have advocated different processes by which to deliver MST (see Weinberg & Williams, 2010) the current authors propose a simple four-stage approach that includes: assessment, education, implementation and evaluation. The assessment stage should be related to the coach’s philosophy and team mission. It is important that the targeted mental skills are congruent with the coach’s values and his/her coaching philosophy. The mental skills should also be in line with the mission of the team (e.g., developing relaxation techniques for a team wanting to perform under pressure). During the assessment stage the coach should evaluate the team’s or athletes’ areas of strength and weakness. To recognize areas for improvement, coaches should thoroughly analyze the demands of their sport from a psychological perspective (i.e., which mental skills are most important for maximal performance). For example, given the independent nature of golf a team, fostering cooperation and teamwork is probably not a high priority. Instead, a college golf coach may find it more beneficial to spend time working with his or her team on how to perform

under pressure by developing pre-shot routines and relaxation techniques.

During the assessment stage we suggest using different forms of assessment including interviews with players, behavioral observations, performance profiles, and valid mental skills questionnaires (e.g., Test of Performance Strategies [TOPS]; Thomas, Murphy, & Hardy, 1999). It is important that any data be gathered in a valid and reliable way so that a correct assessment may be made. While there are numerous mental skills of interest to coaches and athletes (e.g., motivation/goal-setting, confidence building, concentration, imagery, arousal/emotional regulation, communication, team cohesion, leadership, self-talk, dealing with pressure and injuries, etc.), it would clearly be difficult to address all of these skills at once. Therefore, we suggest that coaches prioritize which skills are most important by determining what aspects of performance need the most improvement.

After matching the athletes' or team's greatest area of need (e.g., lack of focus) with the appropriate mental skill (e.g., developing pre-performance routines), coaches can begin the education stage. During the education stage the coach should concentrate on teaching their athletes/teams the specific nuances of the targeted mental skill. If coaches do not have access or cannot afford a trained sport psychology consultant they must seek information through book references, blogs, or videos regarding the desired mental skill. Once they feel they have sufficient knowledge about the targeted mental skill, they can begin to teach their athletes. During this stage it is often useful for coaches to send athletes examples of high profile athletes in the popular media who talk about the mental skills to be introduced. This serves to reinforce the notion that elite athletes are incorporating these skills into their practices and that this process is important for success. Lastly, it is vital that coaches integrate the mental skill(s) slowly until the athletes get familiar with the skill and "buy-in" to MST. This means only introducing one or two mental skills to the team/athlete at a time.

Once the coach and athlete(s) are on the same page regarding the development of each mental skill, coaches should focus on implementing those skills into practice and competition. This involves the coach consistently emphasizing and reinforcing those skills during practice by referring to the previous educational session. Coaches should look to identify "teachable moments" that highlight the importance of the mental skill they are trying to teach. For example, if a basketball player consistently gets very angry, it would be appropriate for the coach to emphasize the importance of arousal regulation. However, coaches should be careful not to unnaturally manufacture these moments or look to insert the mental skill where it may not fit. Rather they should let the practices develop naturally and if the opportunity presents itself, be prepared to capitalize on the moment.

Coaches should design drills and games that allow the athletes to practice these mental skills while working on other aspects of play (technical, tactical, or physical). For example, if a soccer coach wants his/her players to cope better under pressure and control their emotions, he/she might simulate a pressure situation by playing a small-sided game while providing one team with a numerical advantage. The team with the greater number will most likely put the other team under a lot of pressure before the coach reverses the advantage to even the experience. It is important the coach connects the physical experience of the activity with the mental skills/demands by disc-

ussing what the athlete is thinking, how they are feeling, and how they might control these thoughts and emotions. The implementation stage is all about being creative in coaching practices and ensuring mental skills are integrated along with physical, technical, and tactical skills. These elements are not mutually exclusive and should be taught together.

The final stage of mental skills training involves the evaluation of the process. While evaluation should be a continual process throughout the competitive season, we advocate conducting a main evaluation at the end of the season. The purpose of this evaluation should be to examine how much the athletes have improved on the mental skills identified in the assessment stage, their perceived effectiveness of the mental skill, struggles with the mental skill, and thoughts/suggestions the athlete(s)/team has about the mental skill(s), etc. The evaluation should utilize the same tools used during the assessment phase (i.e., using the same measure – interviews, questionnaires, observations, etc.). This provides a level of consistency and helps identify progress (or lack of) in the athletes. From these evaluations coaches and players can then determine where improvements were made, possible setbacks, and what still needs to be improved. The evaluation data should be kept by the coaches for several seasons in order to track the progress of the athletes. This also serves as a form of "monitoring program" as mentioned by DeWeese et al. (2013).

Adjustments to MST programs should be made based on a comprehensive analysis of the data while recognizing that the tools used to measure mental skills have limitations. We advise all coaches to use caution when using data on mental skills to make specific coaching decisions (e.g., playing time), as mental skills are only one component of performance. In summary, using the fours stages of MST (i.e., assessment, education, implementation, and evaluation) coaches can effectively teach mental skills to their athlete/team.

MST and Periodization

To implement mental skills throughout the course of a season we encourage coaches to combine the concepts of MST and periodization. In order to combine these approaches coaches must match the stage of periodization to the corresponding MST phase. Obviously this process depends on what emphasis the coach wishes to place on each part of the season. However, as a general model, the current authors propose that coaches begin by employing the following approach, leading to subsequent alteration dependent on its suitability to the athlete(s)/teams needs and types of season. The preparation stage of periodization lends itself particularly well to the assessment and education stages of MST. As preparation emphasizes self-awareness, this is the perfect chance to use assessment tools and enlist the help of the athletes to identify what mental skills are needed for a successful season. In addition educating athletes on what to expect throughout the season regarding MST at this early stage sets up a shared understanding of the coach's mission and philosophy. The competitive/peaking stage of periodization pairs well with implementation of MST. Incorporating MST into practice and competition is the best way to cement the links between the physical and mental demands of the sport, with a consistent emphasis on both aspects leading to the "peak" of the season. For example, a tennis player practicing and evaluating her pre-shot routine during the competition phase should allow the player to develop an effective routine by the peaking phase

of the season (i.e., conference tournament). The recovery stage allows coaches to step back from of the pressure of competition and to evaluate the season as it winds down. Understanding and evaluating the season as a whole and which areas of MST were and were not successful, allows coaches to plan and refine their skills for the upcoming season (or even the next cycle of competition should there be multiple peaks in one season). While these pairings may not be perfect for the demands of each sport or athlete/team, they provide a general framework that would suit most MST programs.

As previously mentioned periodization involves cycles/stages of stimulation and recovery. Likewise certain mental skills are more important in some stages of the season than others. When thinking about matching specific mental skills with Wathen's (1994) stages of periodization: preparatory, competitive, peaking and recovery; coaches should choose the mental skill(s) that are most important in each stage of the season. Here are some examples of mental skills that may be important for each stage:

- Preparatory: developing athlete(s) self-awareness, team-building/team-cohesion, communication, motivation/goal-setting, leadership, confidence building, and mental toughness.
- Competitive: learning from mistakes, developing quality practice scenarios, performance preparation, concentration, communication, arousal/emotional control, dealing with pressure and injuries.
- Peaking: dealing with pressure, arousal/emotional control, quality practice, concentration, leadership, and performance preparation.
- Recovery: self-awareness, dealing with injuries/burnout, motivation/goal-setting and learning from mistakes.

As can be seen from the four stages of periodization, although there is certainly overlap some mental skills are more important and relevant to different stages of the season. While coaches would prefer their athletes to have all these mental skills at every stage of the season, MST has to be realistic and congruent with what skills are deficient and which are most needed for optimal performance at each stage of the season.

As mentioned previously coaches must be aware of how volume and intensity of MST interact with their athlete/team. While the concept of volume easily adapts from physical to mental skills (i.e., the amount of MST being performed), intensity is a little more difficult to understand. With regards to MST, training intensity refers to difficulty or complexity of the skills being taught (Holliday et al., 2012). For example, some mental skills are usually easy for athletes to grasp (e.g., self-talk), whereas other skills such as imagery may take considerable effort to master. Therefore, coaches must be aware of the volume and intensity of the mental skills they are trying to integrate and manage the mental workload of their athletes.

Conclusion

We hope coaches recognize the importance of implementing effective MST protocols with their athletes/team. We believe that coaches can do this by combining the four stages of periodization with the four stages of mental skill training (e.g., preparatory stage = conduct assessments/educate, competitive and peaking stages = implementation of the mental skill(s), recovery phase = evaluation). In order to integrate mental skills training and periodization the authors recommend that coaches should:

- Carefully consider and develop their coaching philosophy and team mission.
- Examine their schedule, including preseason and any potential post-season competitions (regional, national tournaments, etc.) and identify where they can divide their season into the four periodization stages: preparatory, competitive, peaking and recovery.
- View MST as a long-term process requiring consistent use of the four-stage approach: assessment, education, implementation and evaluation.
- Ensure that their MST program is evidence-based, using valid and reliable data collection tools/methods.
- Consistently emphasize and reinforce mental skills during practice.
- Design their coaching sessions to incorporate all four elements of performance: physical, technical, tactical, and mental.
- Utilize all of their resources in a collaborative effort between coaches, athletes, and support staff.

Lastly, for those interested in seeking the services of a certified sport psychology consultant (CC-AASP), the authors suggest accessing the following link: http://www.appliedsportpsych.org/certified-consultants/searchConsultant.cfm. The Association of Applied Sport Psychology (AASP) and the Certified Consultant Review Committee have evaluated and approved the credentials, coursework, and consulting experiences of all those on the list.

References

DeWeese, B. H., Gray, H. S., Sams, M. L., Scruggs, S. K., & Serrano, A. J. (2013, winter). Revising the definition of periodization: Merging historical principles with modern concern. Olympic Coach Magazine, 24(1), 5-19. Retrieved from http://www.teamusa.org/About-the-USOC/Athlete-Development/Coaching-Education/Coach-E-Magazine

Holliday, B., Burton, D., Sun, G., Hammermeister, J., Naylor, S., & Freigang, D. (2012). Building the better mental training mousetrap: Is periodization a more systematic approach to promoting performance excellence? Journal of Applied Sport Psychology, 20(2), 199-219. d.o.i. 10.1080/10413200701813889

Janssen, J. (1999). Championship team building. Tucson, AZ: Winning the Mental Game.

Martens, R. (2004). Successful coaching. Champaign, IL: Human Kinetics.

Pedemonte, J. (1986). Foundations of training periodization part two: The objective of periodization. National Strength and Conditioning Association Journal, 8(4): 26-28.
Simpson, D., & McCrath, S. (2013, June). The periodization of mental skills training: A creative and integrative approach for coaches. Paper presented at the National Coaching Conference, Colorado Spring, CO.

Thomas, P. R., Murphy, S. M., & Hardy, L. (1999). Test of performance strategies: Development and preliminary validation of a comprehensive measure of athletes' psychological skills. Journal of Sport Sciences, 17, 697-711.

Wathen, D. (1994). Periodization: Concepts and applications. In T. R. Baechle (Ed.), Essentials of strength training and conditioning (pp. 459–471). Champaign, IL: Human Kinetics.

Weinberg, R. S. & Williams, J. M. (2010). Integrating and implementing a psychological skills training program. In J. M. Williams (Ed.). Applied sport psychology (6th ed.). New York: McGraw-Hill.

Wrisberg, C. A. (2007). Skill instruction for coaches. Champaign, IL: Human Kinetics

Allyson Felix of the USA celebrates her team's victory in the women's 4x400 metres relay during day eight of 13th IAAF World Athletics Championships at Daegu Stadium on September 3, 2011 in Daegu, South Korea. (Photo by Stu Forster/Getty Images; (Photo by Andy Lyons/Getty Images)

Олимпиада в Сочи и питание (Sochi Olympics and Russian Food)

Susie Parker-Simmons, USOC Sport Dietitian

In 2014, the city of Sochi will host the XXII Olympic Winter and XI Paralympic Games. The Olympic Games will be holding events in 15 disciplines of seven winter sports and the Paralympics in five winter sports. Eleven athletic venues have been built that are divided into two clusters – mountain and coastal. The costal cluster features an Olympic Park that houses all ice arenas within walking distance from one another. The mountain cluster includes biathlon and ski Complexes, a bobsleigh tack, a ski center, a ski jump complex, snowboard park and freestyle center.

The host city of Sochi is the third-largest region in Russia and is situated on the coast of the Black Sea. Sochi was established as a fashionable resort area under Joseph Stalin, and the area continued to develop until the demise of the Soviet Union. It is now Russia's largest and busiest summer sea resort and is often referred to as the "Black Sea's Pearl."

The Russian Cuisine

Many people are unfamiliar with Russian cuisine, except for perhaps Borscht, beef stroganoff, Bliny pancakes, sauerkraut and other pickled dishes. Russian cuisine, however, is diverse due to the multicultural expanse of Russia. Its foundations were laid by the peasant food of the rural population living in harsh climate with a combination of fish, poultry, mushrooms, berries and honey. Crops of rye, wheat, barley and millet have provided the ingredients for breads, pancakes, cereals, beer, vodka and soups that these staples play an important role in Russian cuisine. These are often based upon seasonal and storable produce.

You will be introduced to many of the following foods when traveling to Russia:

Meats: smoked meats and fishes and stews are prevalent in addition to Kholodets (jellied pieces of port or veal meat) and Pelmeni (minced meat filling wrapped in thin dough). Kotlety are small pan-fried meat balls and Shashlyk (kebab) are also present.

Breads: pies and pancakes are prevalent in Russian cuisine. Pirozhi are small stuffed buns filled with many different fillings and Blini are thin pancakes that were originally served at a religious rite or festival.

Vegetables: cabbage, potatoes and cold tolerant greens are most common in Russian cuisine. Pickled cabbage, cucumbers and other vegetables in brine are used to preserve vegetables for winter use.

Fruits: traditional Russian fruit includes apples, strawberries, blackcurrants, redcurrants and other berries as well as pears, plums and cherries.

Beverages: traditional drinks are vodka, kvass (bread-based drink), beer and sbiten, which have been replaced by teas. A local specialty is the Krasnodar tea – the northernmost tea cultivated in the world. Tea plantations of greater Sochi are located in Dagomys, Solokhaul and Adler.

Condiments: You can expect to find sour cream, or smetana, accompanying almost any Russian traditional food as well as caviar and honey.

The Olympic Villages and Nutrition

Each cluster will have an Olympic Village. The Coastal Village is built along the Black Sea and the Mountain Village and Endurance Village will both be located in the mountains in Krasnaya Polyana. During the Paralympic Games, there will be a Coastal Village and one Mountain Village. Each village will hold a dining hall for athletes to eat.

Each village will provide a 24-hour dining service with the following cuisines presented: Russian, European, Asian and American. Breakfast, lunch, dinner and an overnight service will be available each day. The following food products will be available 24 hours a day: salad bar, cereals, fruits, bakery, condiments, dairy products, pastries and beverages. Halal, vegetarian and gluten free meals will also be available to the athletes at meal times. IOC sponsors McDonalds and Coca-Cola will also provide food service outlets in the Olympic Villages.

The United States Olympic Committee Sports Dietetics team will be working with the National Governing Bodies to develop nutritional strategies to promote health and optimal performance.

Приятного аппетита! (Bon appetit!)

Reference: www.RusCuisine.com

Russian Recipes to Enjoy

Here are two traditional Russian recipes that you can enjoy eating in preparation for the 2014 Olympic Winter Games.

Borsch is most popular soup in Russia, Ukraine and other former republics of the Soviet Union. Its slightly sour and filling taste is great for warmth during the winter and for refreshment during the summer. There are many variations of borscht recipes, it is recommended try different recipes in order to discover a personal favorite.

Borsch Soup

Ingredients:

1 lb. beef (with or without bones)
1 lb. red beets (3 average ones)
½ lb. shredded cabbage
4 small potatoes
1 carrot diced
1 large onion diced
3 Tbsp. tomato paste
1 tsp. vinegar
1-2 cloves of garlic
Olive oil
Salt and pepper on your taste
Parsley, dill and spring onions to top

Method:

There are 3 steps to making the soup: prepare the meat broth, simmer the beets and pan-fry the vegetables

Preparing Meat Broth

1. Place beef into a large saucepan and cover with 12 cups of cold water. Bring to a boil; reduce heat. Remove the grease and froth from the broth surface with a spoon.
2. Add one diced onion. Cook at low heat for 1-2 hours.

Simmering Beets

Melt 1 Tbsp. margarine in a saucepan. Peel and cut red beets into thin sticks and add them into the cooking pot. Add tomato paste or sliced tomatoes. Simmer at low heat for 1 hour. If there is not enough liquid, add some broth. Add vinegar.

Pan-frying Vegetables

1. Melt 1 Tbsp. olive oil in a frying pan. Add chopped onions and carrots cut into thin sticks. Cover and sauté for 15 minutes, stirring occasionally.
2. Heat meat broth to boiling. Add chopped cabbage and potatoes cut into cubes. Cook for 5 minutes. Add sautéed veggies and cook another 10 minutes. Add simmered red beets. Cook another 5 minutes. Add salt, black pepper.
3. Garlic is traditional to add, but optional. If you like garlic, you can add about 1-2 cloves of crushed garlic.
4. Serve with sour cream.

Bliny Russian Pankcakes (servings: 2-3)

Ingredients:

1 cup flour
3 cups milk
2-3 eggs
½ tsp. baking soda
2 Tbsp. vegetable oil
½ tsp. salt
½ onion

Instructions:

1. Mix eggs with 3 cups of milk . Add salt and flour and mix thoroughly. The dough can be drained so that there are no flour lumps in it.
2. Pour vegetable oil into a saucer. Cut peeled onion in half; with a fork use ½ the onion and dip it in the oil. Use it every time for greasing the pan with vegetable oil.
3. Heat the pan to medium temperature. Grease the pan with the onion. Pour a thin layer of batter evenly. Cook until light brown, about 2 minutes on each side.

Bliny can be served with butter, sour cream, black or red caviar, fillet of sturgeon, lox, and salmon.

Noelle Pikus Pace of USA competes in the women's skeleton third heat of the IBSF Bob & Skeleton World Championship at Olympia Bob Run on February 1, 2013 in St Moritz, Switzerland. (Photo by Lars Baron/Bongarts/Getty Images)

Creating a Workforce for Sport-based Youth Development: A Three-tiered Coach Mentoring Program for Coach Across America

John McCarthy, Ed., Director, Institute for Athletic Coach Education, Boston University
Vanessa Akhtar M.Ed., Boston University, Program in Counseling and Sport Psychology
Caitlin Barrett, Assistant Director, Coach Training and Excellence, Up2Us

A growing number of programs are beginning to utilize the vehicle of sport to engage youth through an approach called sport-based youth development (SBYD). Such programs often work with young athletes from underserved neighborhoods and call for the integration of social and emotional development—along with personal and social responsibility—with athletic skill development. So, does this innovative programming call for a different kind of coaching, and in turn, a different kind of coach training?

In the United States, we often look toward professional sport for answers about coaching, so when most people think of coach development, they are likely to think of top-level coaches learning how to help elite players reach the highest levels of performance. They might also imagine those coaches learning cutting-edge information from experts in sport science or the latest tactical innovations from coach educators. The vast majority of youth coaches, however, never receive any sort of specialized training. Furthermore, professional and elite sport training offer little insight into developmentally appropriate and culturally sensitive coaching, which is what is needed when the goal is youth development.

Another obstacle is time: the few hours of required training usually available to most novice coaches are unlikely to produce a cadre of coaches equipped to meet the daunting challenges of working with youth. No matter the kind of training or modeling received, a youth coach will likely feel unprepared, especially in the long term, to deal with the challenges of supporting youth development.

Finally, we might ask from where this cadre of youth sport coaches will come. The need is great, but the preparation, incentives, and support have largely been absent. The local individuals who volunteer to coach in youth sport organizations, most without training, are a critical resource but not a predictable pipeline.

Yet, in spite of these challenges, the basic idea of coaches supporting youth development through sport has tremendous potential for young people, their coaches, and their communities. This is why “Up2Us,” a coalition of sports-based youth development organizations and supporters, started the Coach Across America (CAA) program in 2009. The mission of CAA is to place, train, and support coaches in mostly urban, under-resourced communities throughout the United States. With support from AmeriCorps, the federal program that has also supported Teach for America and

America and VISTA, along with private sources, CAA has been able to achieve rapid growth around the country in the last four years.

The question of what kind of coach training would be most beneficial for coaches was central as the CAA program model was developed. From the beginning, the coaches enrolling in the program were young and mostly inexperienced, which presented both exciting opportunities and special challenges. After a highly successful first year, the program nearly doubled in size, at which point Up2Us approached the Boston University Institute for Athletic Coach Education (BU-IACE), to collaborate to devise a more comprehensive coach support mechanism. Earlier in 2011 BU-IACE and Up2Us convened a panel of nationally renowned coach educators and researchers for a facilitated discussion about the future directions of youth coaching in the U.S. Some of the findings from this roundtable were the backdrop for the design of our collaboration with the Up2Us team. The takeaways from the roundtable included the need to create a model of coach education that took a longer look at how youth development occurs, as well as the need for creating "communities of practice" for youth sport coaches.

The Collaboration: Multiple Goals, Multiple Challenges

The collaboration between Up2Us and the BU-IACE started with defining shared goals about the ways in which to shape and enrich the CAA coach experience through support and training. We wanted the coaches to feel they had made a difference in the lives of young people. Additionally, we endeavored to create an environment in which coaches felt supported throughout their service terms and could gain an increased sense of competence in their ability to coach and work in SBYD environments. Perhaps most importantly, we wanted the coaches to become committed to working in youth development in some capacity for the long-term. Our ultimate goal has always been to increase the size of the workforce devoted to working with kids in underserved communities by providing clear pathways for career development to their youth sport coaches.

On the BU-IACE side, we immediately saw that coaches would have to feel efficacy both in sport coaching and in mentoring and supporting development, so training would need to address both. Our design aimed to support coaches in gaining both an understanding of key principles of positive youth development as well as key considerations of effective coaching. This training would have to be useful for inexperienced coaches – most of the people joining CAA. In addition, these coaches would be scattered across the country, so spatial proximity would be a challenge.

Another challenge was time. We know that the development of coaching expertise is a long-term process, so we had to think ahead about what would happen after the one-year service term of a CAA coach. Would they leave the complicated work of sport-based youth development without further support and connections to help them solidify what they had learned? Or, would they choose to stay involved in youth development in some capacity? And, if they remained in youth development, what pathways would these coaches choose?

The Coach as Mentor Model

In the broader context of sport, coaches are admired for their technical and tactical expertise, particularly their ability to help their teams win games. The traditional view of the sport coach is that of a highly directive or "top down" motivator. Such emphasis may be acceptable in elite and professional sport, but youth sport demands ways of coaching that are developmentally and culturally sensitive and "athlete-centered"(Kidman & Lombardo, 2010). Additionally, we took into account what is known about promoting effective coaching and the coach's role as an educator (Jones, 2009). Our approach with the CAA coaches, therefore, sought to redefine the traditional role.

The "coach as mentor" model we designed for CAA coaches draws from results in the field of mentoring research (Karcher & Nukkala, 2011). We worked directly with Michael Karcher to learn from his work on effective mentoring relationships. In their TEAM model for mentoring, Karcher and Nukkala identified the mentoring styles that are most effective with young people. By adapting their understanding of mentoring to sport coaches, we believed the CAA coaches would benefit from learning about how their own interactional styles – their natural tendencies when interacting with young athletes – might impact their developing relationships with the participants of their programs. Learning about effective mentoring would help them serve youth, and might have the potential to be mutually transformational – enriching the lives of both the youth and the coaches themselves.

In this model, the content of what coaches would learn would include supporting their understanding of these mentoring styles (known in Karcher's work as the "developmental" and "instrumental" styles of mentoring). But how are inexperienced coaches supposed to become good at mentoring young people, particularly those in under-resourced settings, who are often coping with a variety of stresses and life challenges? What are the tools and methods we used in this work with the first-year coaches? We wanted to provide weekly support over the first year, knowing that this would be a long-term intensive developmental process.

Core Elements and Methods of the Coach as Mentor Model

There are several principles that guide our work at the BU-IACE. One principle is that positive coaching change is a process that takes time. As many others have learned, it is unlikely that meaningful learning would result from a quick fix or a single workshop.

Moreover, coaches who are committed to SBYD can best learn from a triad of sources that work together over the long term. These are (1) self-reflection, (2) peer-assessment/sharing, and (3) occasional mentor assessment and advice. We have found that while there are many places to learn about coaching, and many resources can be found on the web and in print, real insight about one's own coaching practice is likely to come from these three reflective and interactional sources.

We reasoned that working successfully with CAA's first year coaches would depend in large part on how well we could do three things: (1) facilitate their on-going self-reflection, (2) promote peer-sharing and facilitate the connection between CAA coaches, and (3) foster the habit of new coaches seeking assistance from their mentor or other experienced professionals.

These three pathways to development aligned well with CAA's configuration: a group of first-year coaches to which we could add a group of "coach mentor" graduate students from the Boston University programs in coaching and in sport psychology. At the top of the pyramid would be an expert mentor who could provide feedback and support to the Level II coach mentors. In the initial year, the way the coach mentoring structure was organized can be seen in Figure 1. Later, we will describe the ways in which the structure differed in the second year.

Figure 1. CAA's First Coach Mentoring Model

Given these elements and methods, and taking into account the geographically distributed nature of the coach training sites, we designed the intervention to include the following experiences and tools.

Intense Initial Training - National Training Institute

We utilized intense initial training that took place over three and a half days at Boston University. During this time, coaches attended sessions focused on aspects of culture building, mentoring and youth development, and leadership. Most of the learning was facilitated in hands-on workshop style. This included an entire morning of "coaching circuits," where coaches played attention-getting games, learned to facilitate active warm-ups and discussions, and ways in which to teach sport skills and give effective demonstrations. By the second day of training, the coaches were challenged to take their new skills and apply them locally by working directly with children in youth centers across Boston.

On-line Resources and Meetings

New technologies offer exciting new possibilities for delivering coach education and training. We were able to make use of several online resources in a synergistic manner to help coaches reflect and to use their reflections in order to provide targeted support. The first component was an on-line tool for reflection used to make online meetings more focused.

Reflection logs "America Learns" is an online platform that supports reflective journaling. Used by many AmeriCorps programs around the country, America Learns has been a part of CAA from the start. Our coach mentoring team created a sequence of America Learns questions that were posed to participants throughout the year. From year one, we studied the type of questions that the coaches would find useful to answer. These questions, provided monthly, were aimed at learning about their challenges, as well as acting as a refresher on key topics presented at the initial training.

For example, we emphasized the importance of providing a clear and consistent structure in youth sport programs during initial training. One of the follow-up America Learns questions to support this learning asked: Now that you have been at your site for a few weeks, what are the ways you have established clear and consistent structure in your program? The Learns logs were arranged to revisit such key concepts at least three times throughout the year. Aside from supporting the original training with variations on the same theme, we were also able to mine CAA coach responses for productive ideas regarding the ways in which to accomplish creating clear and consistent structure in different types of programs. At the same time, we were able to assess a range of issues that the coaches face to see their struggles.

Remote learning (webinars) Webinars are a relatively new tool, implemented monthly throughout year two of the model that helped us solve multiple problems. First, we know that development of coaching knowledge takes time, so our training would have to continue through the year, and we knew that there were many topics that we could only touch upon during the initial national training institute. Second, because the new coaches were scattered across the country, we would have a hard time creating a sense of community that could aid their development. To solve these problems, we provided monthly webinars at a designated time during the day. We usually received 25-30 participants at the time of the webinar. Because of time differences, we understood we would not be able to reach everyone at the same time, so we made the webinar content available to all when it was convenient for them. The webinars were rich with multimedia videos, Prezis, diagrams, interactive chats, and whiteboard and other participation options, such as video conferencing.

This really brought home the idea of a "community of practice" (Lave & Wenger) because the format prioritized as much participation as the platform would allow. The webinar format also helped reinforce initial training content: "Institute Flashbacks," reviewed material from the initial training institute. Most importantly, at least half of the webinars were designed as direct responses to concerns that the coaches themselves raised in their America Learns logs. As the mentors read these logs, what they learned fed back into the design of the webinars.

Mentor contact: The graduate students serving as coach mentors during the first year of our collaboration worked with their mentor trainer, an experienced coach and coach trainer with a strong background in SBYD. This constituted the first two layers of our three-tier model.

The six graduate student mentors in year one served to provide some "expert" advice and occasions for self-reflection for the first-year CAA coaches. In addition, mentors often provided a friend-

ly ear – someone to listen to whatever the coach needed to discuss. Mentor-mentee interactions were meant to aid coaches in their overall development as well as provide suggestions and resources for day-to-day interactions with youth.

One of the challenges we encountered concerned the variety of circumstances in which CAA coaches worked. The mentors tried to take into account the specific circumstances of each CAA coach in training, but this was not easy. After their initial training in the intensive summer institute, CAA coaches go back to work in their host site for the entire length of their one year service term. Since host site organizations vary considerably in the type of programming they offer, a coach's work can differ depending on the host site. For example, if a coach worked at America SCORES, they would be working with seasonal programming around soccer and poetry, whereas if they went to SOS Outreach they would be working with youth in six-week programming slots around skiing and snowboarding and other outdoor sports.

Figure 2. CAA's Second Coach Mentoring Model

Of course, not all coaches sought the advice and counsel of their mentors, in spite of our best efforts.

The structure of delivery in terms of personnel changed from year one to year two (see Figure 2 above), but the premise remained the same: to provide an experienced person to support and be a sounding board for new coaches. While we are still studying the data to understand and communicate what was effective, it seems mentors also served as a connector between coaches – linking sometimes isolated coaches with other coaches in their region. While some coaches easily made connections with their peers at the initial training, others did not. We aimed to have mentors foster the relationships between coaches.

In the transition from the first year to our second year of working with CAA, there was a clear need for creating a sustainable in-house model for Up2Us, coupled with the organization's original goal to create a career pathway to help young coaches stay involved in youth development. As a result, we utilized the expertise of a handful of young coaches by creating a second year option, in which they would provide peer-leadership for first-year coaches in their region. During the second year, the mentors in Level II were CAA coaches who had finished year one, and showed promise of being peer-leaders. Some of the graduate students who served as direct mentors in the first year shifted to tier III, primarily providing support for second year coaches serving as tier II of the model. These graduate students also had occasional interactions with first year coaches, tier I of the model.

Alignment with National Standards for Sport Coaches: While there is an on-going debate regarding how to get sport coaches at all levels to align their work with the national standards set forth by the National Association for Sport and Physical Education (NASPE), it is somewhat paradoxical that the work we are conducting with CAA coaches and their mentors seems to have the potential to encompass all of the domains of the National Standards for Sport Coaches. These coaches are serving in places that have extreme challenges to everyday programming, but their work within our collaboration with Up2Us has demonstrated potential to show new pathways to pursue alignment with the national standards.

In particular, emphasis was placed upon Domains 1, 4, 5 and 8. In NASPE's coaching standards the first benchmark is "implementing an athlete-centered philosophy" (Domain 1). Domain 4 is a standard that encourages sport-based youth development programs to "utilize sport as a vehicle for developing transferrable life skills." Additionally, training sessions and mentor-mentee conversations were focused on how to best interact with youth from developmental and instrumental perspectives (Karcher, 2010) (Domain 5). Lastly, there was a strong emphasis on coach reflection throughout the year to encourage coaches to consistently evaluate and reflect on their work (Domain 8).

Conclusion

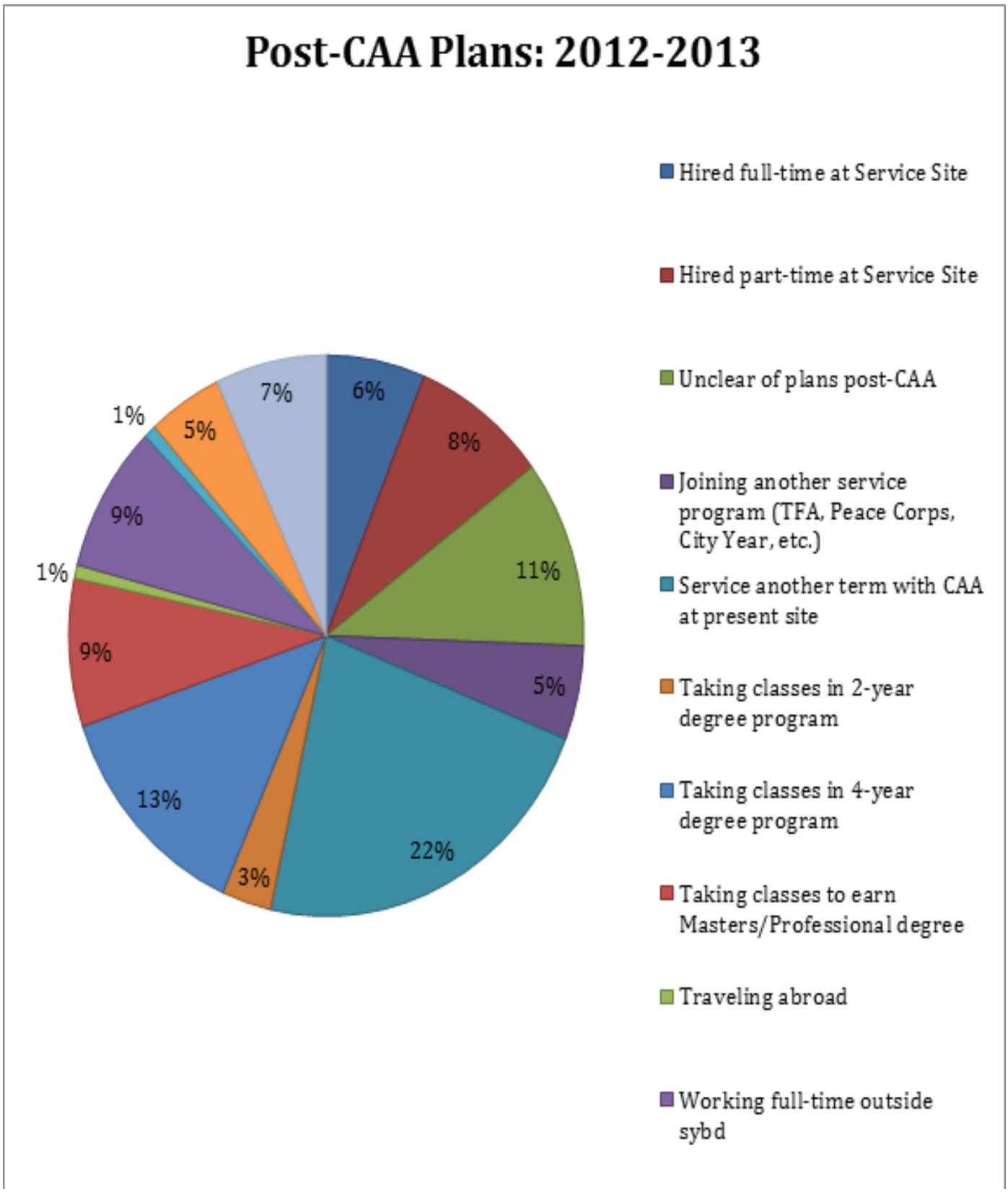
Up2Us has made considerable progress toward their original goal of developing a professional pathway for youth sport workers. The program has made strides in supporting the development of young people as well-trained and competent coaches. While these objectives are a long-term endeavor, we are continuing to examine progress of these goals. For example, we have collected data on coaching efficacy from the viewpoint of CAA coaches, and we will analyze the ways in which this aspect changes or stays the same throughout the year.

Because career pathways are influenced by a variety of factors and take individual turns, it is always a challenge to induct young people into a career pathway. Early data from Up2Us, however, indicates that a high percentage of the young people who choose to participate in a year of service with CAA remain involved in the SBYD sector. At least 75% of CAA alumni from 2009-2012 are staying in the SBYD field in some capacity. Of the coach alumni from 2011-12, 36% are working in a youth serving capacity, either part-time or full-time. A third (34%) are pursuing some form of continuing education (two- year, four-year, or masters or professional degree). Eleven percent were

unclear about their future pathway, and others who worked outside the network traveled or followed another career path. In 2012-13, the coach alumni are continuing in a similar way as the previous year, with 41% continuing in a youth-serving capacity either part-time or full-time, 25% pursuing some form of higher education and 11% again unclear about their future pathway.

In this collaboration between CAA/Up2Us and the BU-IACE, we have been able to test several new approaches and tools for youth sport coaching. One tool is the coach as mentor model. Another tool is our two consecutive versions of distance mentoring. Both years of data collected from the America Learns reflective journals will provide further insight into what young coaches think about their coaching and what they find challenging and helpful in their development. We will also study the usefulness of the webinars initiated in year two, particularly as they are targeted to coaches' stated needs. In our ongoing study of the impact of these models and methods of delivery, we are conducting focus groups with various coaches in the program to gain a better understanding of what methods are most effective and whether the method of delivery is adding value. For example, we are exploring the impact on those coaches who in their first year had no Boston University mentor, in comparison to those in their second year who received mentorship. We will also seek to understand the experience of second-year CAA coaches who took on the role of mentor with Boston University support. We hope this collaboration will continue to provide a dynamic site to both test and evaluate new modes of coach education.

Kelly Murphy of USA spikes the ball during day five of the FIVB World Grand Prix Sapporo 2013 match between USA and Japan at Hokkaido Prefectural Sports Center on September 1, 2013 in Sapporo, Hokkaido, Japan. (Photo by Atsushi Tomura/Getty Images)


Post-CAA Plans: 2012-2013
6%
8%
11%
5%
22%
3%
13%
9%
1%
9%
1%
5%
7%
Hired full-time at Service Site
Hired part-time at Service Site
Unclear of plans post-CAA
Joining another service program (TFA, Peace Corps, City Year, etc.)
Service another term with CAA at present site
Taking classes in 2-year degree program
Taking classes in 4-year degree program
Taking classes to earn Masters/Professional degree
Traveling abroad
Working full-time outside sybd

USOC launches National Medical Network to Support Elite Athlete Health and Performance

The United States Olympic Committee today announced the formation of a National Medical Network, which will provide medical care to elite U.S. athletes, including orthopedic medicine, physical medicine, primary care, dentistry, neurosurgery and more. This network is comprised of national and regional medical centers, including Hospital for Special Surgery (HSS) in New York, N.Y., the first organization to be designated as a National Medical Center by the USOC, and four Regional Medical Centers.

“We are extremely pleased to have Hospital for Special Surgery join the National Medical Network,” said Alan Ashley, USOC chief of sport performance. “The purpose of this medical network is to provide convenient and quality services for elite athletes. The variety and value of services that this collaborative project will provide is a true game changer for Team USA.”

The following organizations are members of the National Medical Network:

NATIONAL MEDICAL CENTER

- Hospital for Special Surgery – New York, N.Y.

REGIONAL MEDICAL CENTERS

- Memorial Hospital, part of University of Colorado Health – Colorado Springs, Colorado, Official Hospital of the Colorado Springs U.S. Olympic Training Center
- Colorado Center of Orthopedic Excellence – Colorado Springs, Colorado, Official Orthopedic Medicine Provider to the Colorado Springs U.S. Olympic Training Center
- Adirondack Health – Saranac Lake, New York, Official Hospital of the Lake Placid U.S. Olympic Training Center
- Lake Placid Sports Medicine – Lake Placid, New York, Official Orthopedic Medicine Provider to the Lake Placid U.S. Olympic Training Center

The USOC is striving to continue developing and expanding its list of National Medical Network providers to further support National Governing Bodies and the performance objectives of U.S. Olympic and Paralympic athletes.

“Throughout a long-term athletic career, nearly everyone experiences some sort of injury or faces a health issue, but if these setbacks can be restrained to minor obstacles, we are able to continue competing with the world’s best,” said Curt Tomasevicz, 2010 Olympic bobsled champion and Sochi 2014 Olympic hopeful. “As an athlete, I’m grateful the USOC has undertaken this project and believe the National Medical Network is a great resource.”

For more information on the National Medical Network, visit TeamUSA.org.

On the cover: Bill Demong of the United States in action during the Men's Nordic Combined HS106 on February 22, 2013 in Val di Fiemme, Italy.

Cover photo by: Alexander Hassenstein

USOC Sport Performance Division
Resource Staff

Alan Ashley, Chief of Sport Performance
Alan.Ashley@USOC.org

Chris Snyder, Director of Coaching Education
Chris.Snyder@USOC.org

Leslie Gamez, Managing Director - International Games
Leslie.Gamez@USOC.org

Wesley Barnett, Team Leader
Wesley.Barnett@USOC.org

Rachel Isaacs, Team Leader
Rachel.Isaacs@USOC.org

Julie O'Neill, Team Leader
Julie.O'Neill@USOC.org

Kelly Skinner, Team Leader
Kelly.Skinner@USOC.org

Current and past issues of Olympic Coach are available compliments of the United States Olympic Committee Sport Performance Division. Visit www.teamusa.org/About-the-USOC/Athlete-Development/Coaching-Education.