



Singapore Psychologist

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THE PSYCHOLOGY OF SPORTS & EXERCISE

THE APPEAL OF EXTREME SPORTS | YOGA AND A HOLISTIC WELL-BEING | EXERCISE AVERSION | BURNOUT IN SINGAPOREAN COACHES | BREAKING THE OLYMPIC OATH: CHEATING IN SPORTS | EXERCISE ADDICTION | PAIN IN PROFESSIONAL BALLET | CHILDREN MENTAL WELLNESS THROUGH SPORTS | INTERVIEWS WITH OUR NATIONAL ATHLETES, COACHES, AND SPORTS PSYCHOLOGISTS | AND MANY MORE

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THE PSYCHOLOGY OF SPORTS & EXERCISE

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EDITORS' NOTE

An image that often comes to mind whenever sports is mentioned is one of athletes at peak performance, competing for the chance of glorious victory. For many of us, sports represents the pinnacle of physical fitness, the exhilaration of winning, and the camaraderie of a close-knit team. At the national level, sports is national pride. Amongst nations, sports becomes a universal language that brings people together. Sports, therefore, transcends the individual and is best viewed at the interpersonal level.

Conversely, exercise represents a vastly different outlook for many. Exercise is almost always a solitary pursuit, an internal struggle to defend against our ever-ageing bodies. It is adherence to a strict routine for our physical health; a determination to maintain fitness and a healthy body weight and/or size. Exercise is the self-discipline to mitigate potential negative consequences for ourselves, be they physical or psychological.

It is these subtle differences in their meaning that pique our interest to dive deeper into the psychology of both. If we maintain that sports is a positive endeavour full of record-breaking victories and a celebration of the fittest, how did it become such a stressful industry with athletes suffering from burnout, depression, and anxiety? If we also maintain that exercise is merely a form of negation, why do some people love and get addicted to exercising?

In this issue, we have the pleasure of asking our homegrown national athletes questions about their individual journeys, motivations, and the costs of pursuing excellence. We also interviewed sport psychologists and coaches to better understand the behind-the-scenes preparations for our athletes to maintain peak performance.

Ultimately, we hope to better understand the intricate connection between body and mind and how our mental state is reflected in our physical health. After all, psychology is not only about mental disorders. As our previous issue on the psychology of eating has demonstrated, psychology permeates deeply in every aspect of our everyday life. Recognising how the external world interacts with our self and understanding how we navigate within it is the first step towards fostering positive psychological wellbeing.

Read on and get psyched!

Mok Kai Chuen
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PRESIDENT'S ADDRESS

"Winning isn't everything, it is the only thing."

– Henry Russell (Red) Sanders (UCLA Football Coach)

Now is it?

This classic quote has been used in pre-game talks, workshops, sports camps, and school competitions. It has served to inspire individuals and teams to victories and, at the same time, led to crushing blame in defeat. What exactly happens in our brains and psyche that result in this upheaval of emotions when it comes to sports and exercise? What is the psychology behind the need to win, our pursuit for victory, and the determination to put ourselves through hardship and pain as you train?

The roles that sports and exercise play in our lives cannot be denied. Individuals use exercise to manage personal stressors and pain, engage with friends, boost self-esteem, compete, and even to get some "me-time". At the forefront of many people's to-do list lie a series of exercise regimens like yoga and body combat classes. The determination and commitment with which sports and exercise require is commendable.

Yet, winning should not be the only thing. The psychology of sports involves many aspects that the Singapore Psychologist is going to bring its readers through and push boundaries on. To understand the psychology behind sports and exercise is to understand our motivation and commitment to routine. The importance of physical and mental wellbeing must also be understood and weighed against negative consequences of exercise such as burnout and addiction.

With the success that Singapore has had in the sporting arena, we also hope to champion conversations of inclusivity by engaging with athletes, both past and present, who compete on both regular and para-athletic platforms.

Psychology plays a big part in sporting excellence and, in return, sports and exercise play a big role in the maintenance of our physical and mental wellbeing. It is with great pleasure that SPS brings insight into the psychology of sports and exercise, shedding light on an area that is applicable to many, far-reaching, and meaningful both individually and as a collective society.



A handwritten signature in black ink, appearing to read 'Cherie Chan'.

Dr. Cherie Chan
President, SPS

An Introduction to Yoga and its Role in Mindfulness

Jeanie Chu



Mindfulness, a term commonly associated with the practice of yoga, is also a commonly sought-after goal of yoga practitioners. Cultivated through regular practice, mindfulness has numerous benefits to one's overall wellbeing. In particular, mindfulness has been shown to aid in relieving symptoms of depression and anxiety (Schuver & Lewis, 2016) and the development of cognitive skills that are often associated with acceptance, objectivity, and meta-cognition (Hussain, 2015).

In psychology, mindfulness-based psychological interventions are also popular means of treating various psychological disorders (Hedman-Lagerlöf et al., 2018). This article delves deeper into how mindfulness manifests in the different types of yoga. While there are many different ways to categorise the different types of yoga, here, we categorise them into three different groups: grounding/healing, dynamic, and Bikram/hot.

GROUNDING AND HEALING

Grounding (a form of yoga practice that connects the body to the earth physically and spiritually; e.g., *Hatha yoga*) and healing (e.g., *Yin yoga* and restorative) yoga practices are generally much slower, with the focus on breath, proper alignment, and mindfulness. The slower pace in these styles of yoga allows one to bring conscious awareness to the present moment – breathing, sensations in the body, and the instructions from the yoga instructor.

Hatha

Dating back to the 15th century, *Hatha yoga* is the foundation of all yoga styles. It incorporates *asanas* (postures), *pranayama* (regulated breathing), and *dharana* & *dhyana* (meditation) into a complete system that can be used to achieve enlightenment or self-realization. This yoga is practised at a slow pace as it focuses on proper alignment. Poses are generally active and grounding. Holding the active poses with a focus on consistent and slow breathing can be challenging. Mindfulness works in guiding practitioners to focus on the present moment, getting them to hold the poses, and letting go of judgments and expectations.





Yin

Yin yoga seeks to open up and deepen the stretch in the body by holding on to poses longer – typically three to five minutes. As opposed to *Yang* practice (which are challenging poses with active engagement of muscles in *Hatha* and *Vinyasa* yoga), this practice is passive and focuses on allowing the body to open up with the aid of time and gravity. There is no active engagement in the muscles when doing the poses. Mindfulness comes into play from the notion that yoga practitioners have to “surrender” to the pose and work through both physical and mental discomfort, especially when the body is stiff and inflexible, as these poses can be uncomfortable and painful for some people. Very often, practitioners find it difficult to hold the poses and would fidget and resist the poses (avoidance). This is where mindfulness is employed. Mindfulness in yin yoga works like radical acceptance in Dialectical Behavioural Therapy (DBT) and Acceptance and Commitment Therapy (ACT) – accepting that we cannot control the pain and discomfort of the poses completely. As such, practitioners are instead encouraged to work towards totally accepting the discomfort with our mind, body and spirit. We learn that we cannot change the present facts, even if we do not like them. Nonetheless, we can work towards accepting them and over time, see that relenting in fighting the poses actually creates more physical and mental space, and hence, holding the poses becomes easier.

Restorative

Restorative yoga focuses on winding down after a long day and relaxing your mind. At its core, this style focuses on body relaxation. Restorative yoga also helps to cleanse and free your mind. In a restorative yoga class you will spend long periods of time lying on blocks, blankets and yoga bolsters – passively allowing your muscles to relax. Similar to *Yin* yoga, this style of yoga cultivates a focus in the present moment. Additionally, it also works as a relaxation technique as it relaxes the body and mind.





DYNAMIC

Dynamic yoga refers to connecting movement with breath.

Ashtanga, Mysore and Vinyasa

In Sanskrit, *ashtanga* is translated as "Eight Limb path." In Mysore, India, people gather to practice this form of yoga together at their own pace—if you join Mysore-led *ashtanga*, it's expected of you to know the series, which is a set sequence of poses.



Vinyasa was adapted from *ashtanga yoga* in the 1980s. It is practised in a continuous flow, linking *hatha* poses together, focusing on connection of poses and linking breath to movement. This practice focuses on mindful transitions with the breath. *Vinyasa yoga* is often considered the most athletic yoga style, and thus the demands on the muscular strength of the body often takes the focus off the breath and other important aspects of yoga such as the alignment of poses.

Mindfulness comes into play due to the various demands in this practice – attention needs to be placed on the breath, at the alignment of poses in a quick manner, and the transition of poses, while staying present at all times. It is also known as a moving meditation as the simultaneous focus on all these different aspects requires one to stay present at all times.

BIKRAM / HOT

Bikram yoga was founded by Bikram Choudhury. There are 26 different poses in the *Bikram yoga* and 2 breathing exercises. Due to its structured and mundane practice, it is perfect for a mindfulness practice as practitioners have to deal with multiple “stressors” – the challenging poses, the heat, the mundane practice and, hence, the wandering mind. This is the first yoga style that specializes in using the heated environment. Since then, people have created hot versions of some other yoga styles such as *Hatha* and *Vinyasa*.

The element of heat challenges an individual's physical (e.g. stamina, flexibility and muscular strength) and mental tolerance. Specifically, yoga practitioners have to cultivate peace with their body and mind in a heated environment, in addition to the challenges posed by the different types of yoga. The heat helps to improve breathing and develop a better mental focus. More importantly, the heat aids individuals in enhancing physical flexibility by softening the muscles so that practitioners can go deeper into poses and have psychological flexibility (a concept in ACT) The heat also trains practitioners to stay in the discomfort (i.e., the sweat, the heat, the smell, the urge to wipe, drink or leave the room), which would help to strengthen mental tolerance and acceptance over time.



Children's Mental Wellness Through Sports

Cindy Chan & Tony Tay

While scoring a good grade in academics is tough work; scoring a goal in sports is even tougher work. The foundation for learning is often set in our ABCs, with much opportunity for remediation. Our children are weighed down by endless expectations of performing well academically but less exposure is given to participation in sports, with even less emphasis for equal opportunities. The influence of sports in a child's life is unparalleled, in the enhancement of both physical and mental health development.

Kids participate in sports not just for instant success and results. Rather, they develop holistically in several areas. The stereotypes (e.g., competitive, physically fit, outgoing) of what makes a good sportsman make it difficult for children to enjoy sports as just play.

Recall that child left behind in physical education class, or that classmate picked last to join a team. Or perhaps you were that child? Do you still remember, after all these years, the rising anxiety levels as you awaited to be chosen?

Children are active by nature and like to participate in all things moving. Imagine what that is like when a child is benched to watch from the sidelines. When continuously denied opportunities to participate in sports or team activity, children can over time develop self-doubt and question their own abilities and even their self-esteem. This can increase their susceptibility to mental health issues, through biased lenses which may negatively evaluate experiences.

Still, sports is a great way to make friends and develop social skills. Play is a crucial avenue to help children learn about teamwork – the importance of working together and interacting with other peers, older children or adults. Through sports, they learn that equal effort and participation are crucial, while also appreciating that everyone has their own strengths and weaknesses. They learn to celebrate their successes while accepting losses as part of the process.





In similar situations, they learn to see beyond differences and abilities, and pick up skills in empathy and sympathy, as well as the ability to advocate for and encourage each other. They are exposed to situations that signal a spectrum of emotions, learning to accept and regulate themselves.

Local research has supported that involvement in a sport greatly reduces the risk of delinquent behaviours (Li et al., 2015). Several local community initiatives have also been set up to keep children with at-risk (oppositional/ conduct / delinquent) behaviours engaged in meaningful activities and sports (i.e. SportSG Learn-To-Play Programme, KidSTART and ActiveSG Year End Active Holiday (YEAH!) School Holiday Program). This helps to foster in them a sense of achievement, creating opportunities for them to experience and develop the qualities described above.

Can You Walk 10,000 Steps Every Day?

The Psychology of Fitness Trackers and Applications

Jessy Yong

"Exercise is very important for your body."

My 60-year-old father is an avid jogger and exercise enthusiast. Every week, I would hear him advocating for (or rather, nagging about) the importance of exercise. Hence, for his birthday this year, it was only natural that my family got him a fitness smartwatch. At first, he simply dabbled around with its settings. But now, he has started to consistently track the timings for his almost daily runs and shows them to my brothers and me. He also posts about his personal records on his Facebook timeline.


There is certainly something very enjoyable about having the ability to see yourself committing to and improving on a goal, with an added joy arising from being able to share this experience with others. This is why many fitness applications introduce hedonic features, such as being able to review your progress or giving out contingent rewards, as they promote fun and entertainment. This can encourage the user to embrace and accept new technology. These features can also facilitate behavioural changes, which in this case, involves getting fit (Venkatesh, Thong, & Xu, 2012; Sullivan and Lachman, 2017).

Singapore has also taken on this concept of a hedonic feature and implemented our own programmes. Perhaps this may ring a bell: Have you heard from an advertisement or from a friend about taking 10,000 steps every day? More widely known as the National Steps Challenge, taking these 10,000 steps has already passed its 5th season. It, too, is not a "challenge" for no reason. That is, if you manage to hit a certain milestone or number of steps, you win "Healthpoints" that can be converted into e-vouchers.

The continuation of this challenge for many consecutive years signals that exercising does not have to be a standalone activity. Instead, it can be enhanced through gamification, i.e., extending parts of our lives to include game-like elements such as gaining points or rewards. This strategy has been shown to be effective in increasing user willingness to continue in their usage of fitness trackers. Gamification would now allow users to process their own bodies in concrete numbers and information, which consequently gives them a sense of control over their own lives (Nelson, Verhagen, & Noordzij, 2016; Lupton, 2014).

With this powerful potential of gamified fitness, a new cultural phenomenon of the "quantified self" is thus ushered in – a movement that weaves activity trackers into our daily lives to optimise our physical and mental health (Lupton, 2014). This trend empowers individuals to take action for their own fitness and share achievements with a community of users that can serve as networks of social support (Swan, 2012; Haddadi, Ofli, Mejova, Weber, & Srivastava, 2015; Higgins, 2016).

But as ideal as all of these may sound in advancing exercising attitudes and behaviour, there exists an irony. By attempting to control our actions and getting us to exercise, an opposite effect could arise instead, resulting in the person exercising less (Wegner, & Pennebaker, 1993). This happens because inducing self-control to change one's behaviour can often deplete our limited cognitive resources, making it difficult to sustain this action continuously (Baumeister, Muraven, & Tice, 2000). The same can be said of the quantified self. Calvo and Peters (2013) raise how getting self-tracking users to focus on a goal for the long term could actually backfire, and should, instead, require more simplified and tailored fitness goals.



Furthermore, gamified fitness applications may have similar negative consequences to video games (e.g., gaming addiction). In particular, Motyl (2020) reveals how some self-tracking users no longer practice the quantified self by their own volitions, but by their compulsions. These users begin to feel massive discomfort if they were prevented from engaging in self-tracking activities, leading to a diminished quality of life and mental health – a sign of addiction. For instance, one user illustrates this compulsion as the “untended [self-tracking] data pervades [him] as anxiously as an untended garden”, urging him to launch the self-tracking application multiple times a day (Williams, 2015, p. 125).

As much as self-trackers and fitness applications can improve the exercise habits of many, how deep should we go to create rigorous fitness habits for ourselves? How much of the gamified experience should we harness? These are the questions we need to ask ourselves as we step forth into the world of the quantified self. In the meantime, we must not discount the potential of these fitness trackers and applications. These devices can reform the way medicine work, creating individualised medicine while respecting the informed patient. The patient is now able to track the progress of their many bodily changes, e.g., activity levels, heart rate, and weight fluctuations. Medical professionals can also educate patients on how they can incorporate self-tracking without aiming for perfectionistic goals.

The concept of self-tracking certainly invites concerns about privacy and addiction, and it appears almost dystopian. However, if used cautiously, we may see a paradigm shift in the way we understand health and fitness, and disrupt the entire healthcare industry.

The Mental Health of Athletes with Special Needs

Tony Tay

When it comes to the mental health needs of athletes, there are various groups of athletes that we can direct our focus on. Literature on this topic categorizes them into elite athletes, student athletes, Paralympic athletes, and Special Olympics athletes. Further reading into this area of study revealed that the bulk of mental health research done on athletes has been geared towards the elite and student athletes. Even for Paralympic-related research, the focus has been on physical health and post-traumatic stress disorder (PTSD). A narrative review conducted in 2019 found that out of the 536 publications identified for initial screening, only seven publications addressed Paralympic athletes (Swartz et al., 2019). For Special Olympics athletes, there are studies that looked at the psychological benefits of involvement in Special Olympics (Crawford, Burns & Fernie, 2015). However, reports on the mental health needs of Special Olympics athletes are few and far between.

With the upcoming Special Olympics World Winter Games in 2022, there is a need to look at how we can provide mental health support for the Special Olympics athletes. However, to understand the mental health needs of these athletes, we need to first understand the context of mental health in elite and student athletes. This could be beneficial to the mental health of athletes from the Special Olympics. Then, we can explore the mental health issues associated with intellectual disability. Finally, I will propose how we can intervene and measure the mental health status of Special Olympics athletes in Singapore.

Understanding Mental Health in Elite and Student Athletes

To understand the mental health of elite athletes, we should start with the International Olympics Committee Consensus statement on mental health (Reardon et al., 2019). There is no consensus-based guideline for the diagnosis and management of mental health issues by the committee but it is suggested to follow the DSM-V. However, the committee pointed out that for athletes, there is an intersection between injury, performance, and mental health.

Barriers (e.g., negative attitude towards having mental health issues) also exist, which prevent athletes from seeking mental health care. Another major barrier is the need to transition out of the sport the athletes love due to mental health issues, which prevents them from coming forward. Special consideration should also be given to Paralympic athletes as there is minimal research conducted on this population to determine their mental health.

With these in mind, a recent review conducted to examine the mental health and wellbeing of elite athletes concluded that the prevalence of mental health issues (e.g., substance abuse) among the athletes were similar to the general population in the United States and the issues are often related to sporting factors (e.g., injury, overtraining, and burnout) (Rice et al., 2016). Another review on protective factors for mental health also concluded that adequate recovery and autonomy in sports are critical factors (Küttel & Larsen, 2020). In sum, present research of mental health in elite athletes has yielded developments in early detection and intervention programmes, improving elite sport staff's knowledge on mental health, management of mental health issues, and identification of correlates to mental health (Walton, Purcell, & Rice, 2019; Rice et al., 2019; Stillman et al., 2019; Rice et al., 2020). The research on the mental health of elite athletes has come a long way and this knowledge would be beneficial to athletes in the Special Olympics.

Paralympics vs. Special Olympics

Special Olympics is often confused and taken to be synonymous with the Paralympics. At the Special Olympics, our athletes have intellectual disabilities rather than physical disabilities and athletes often inspire us through their determination in sports. However, as documented in research, individuals with intellectual disabilities often have other co-occurring psychiatric disorders and mental health issues (Mazza et al., 2020; Bolourian & Blacher, 2018). Adolescents with intellectual disabilities have been reported to suffer from depression and anxiety symptoms (Maiano et al., 2018). They are also reported to have a high level of stress (Laborde et al., 2017) and the stress could lead to anxiety disorder (Green, Berkovits & Baker, 2015). Interestingly, a recent research indicated that athletes from Special Olympics reported lower level of cognitive anxiety states and improved self-confidence (Flint & Pearson, 2016). Social anxiety and behavioral problems have also been reported to be associated with mild intellectual disability among the adolescents (Houtkamp et al., 2017; Kim et al., 2014). It is thus paramount that the coach and sporting staffs of Special Olympics be privy of these co-morbidities that our athletes may have.

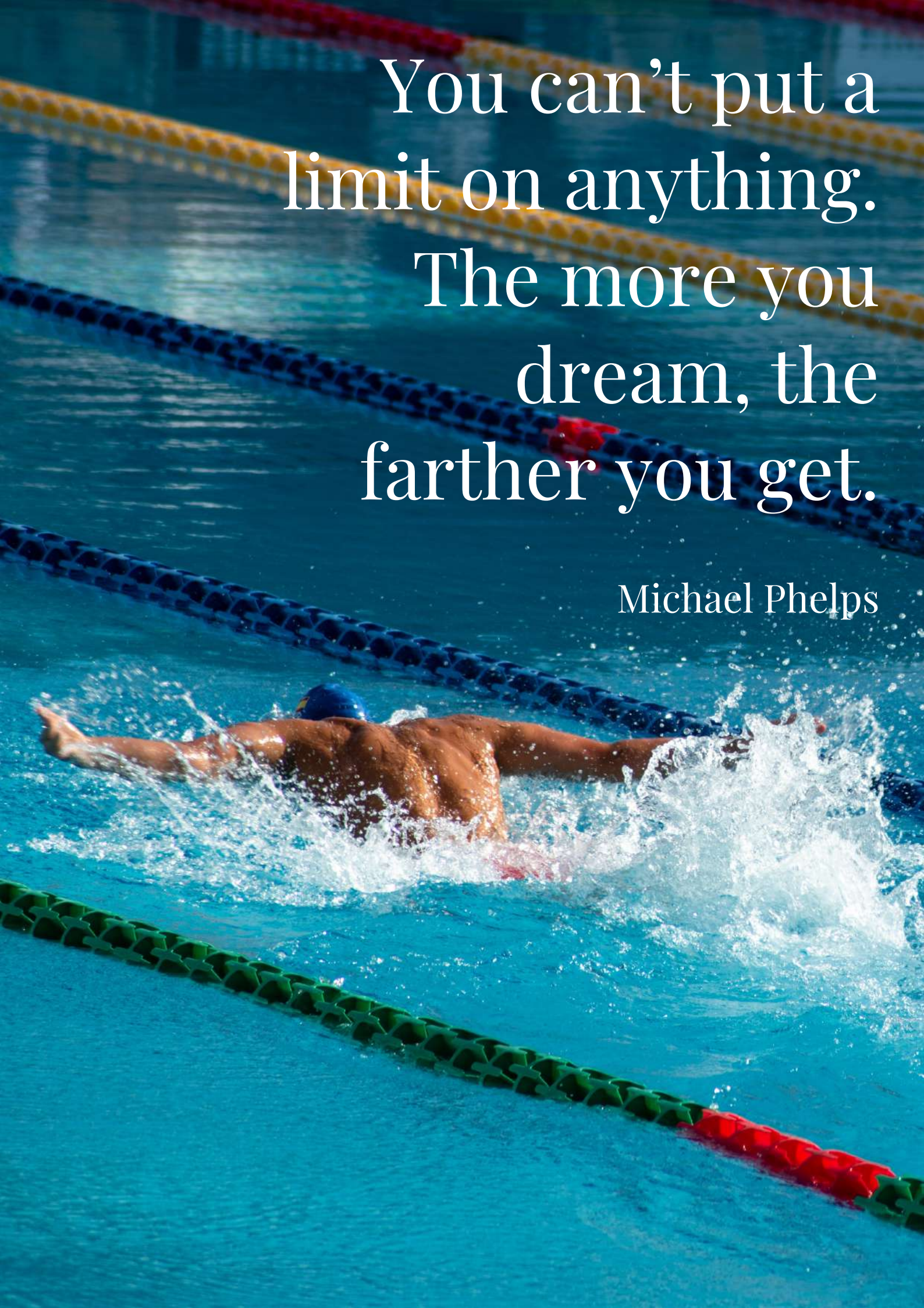
Mental Health Status of Special Olympics Athletes in Singapore

There are many sports available for the Special Olympics athletes to choose from offered by the Special Olympics Singapore. I propose that we make use of the knowledge offered by the literature to begin a pilot programme for screening some of the more commonly associated co-morbidities in our athletes. This will help identify athletes who are not aware of other mental health issues they might have. There after, we could develop a strategy to manage these athletes to ensure they receive the appropriate treatment before returning to the competitive scene. We should also conduct studies to understand how anxiety issues related to sport affects our athletes behaviors as compared to the unified partners (i.e., individuals without intellectual disabilities).

We could also identify mental health factors that would be an impediment to our athletes performance. It will be valuable to add objective mental health assessment tools as a routine to determine the mental health status of our athletes. These objective measurements will help guide the training and help us understand the factors in mental health that would influence the optimal athletic performance. The Special Olympics athletes compete against the best in the world, similarly to the elite athletes. Therefore, the literature offers valuable knowledge that could be transferred and used for the Special Olympics athletes and we as coaches should start evaluating the impact that mental health has on the performance of our athletes.

I also urge that psychologists interested in sport assessment to get in contact with the Special Olympics Singapore for collaboration.



A full-page background image of Michael Phelps swimming in a pool. He is in the middle of a stroke, with his arms extended forward and water splashing around him. He is wearing a blue swim cap. Lane lines in yellow, blue, and green are visible in the pool.

You can't put a
limit on anything.
The more you
dream, the
farther you get.

Michael Phelps



The Appeal of Extreme Sports

Cheh Fu Yang

What comes to mind when we see people leaping across sky-high building gaps, plunging thousands of metres with just a wingsuit for navigation, or diving unassisted into the unknown? Why might anyone attempt such feats? What compels them to participate willingly, much less enjoy such activities where death could be a potential outcome? What goes through the minds of athletes who take part in extreme sports?


Before we look into the motivations of extreme sport athletes, it is important that we first understand what extreme sports is. Unlike traditional sports, extreme sports has no centralized international governing body, making arriving at an official definition for extreme sports problematic. Across multiple sources and definitions available online, there are two tenets of extreme sports that are generally agreed upon. First, it has to involve a high level of risk for physical injury, sometimes to the point of death. Second, extreme sports are usually individualistic in nature and done alone. With this "extreme" definition of extreme sports, why are there still people indulging in parkour, skydiving or deep-sea diving?

A person wearing a blue helmet, an orange long-sleeved shirt, and black shorts is climbing a steep, light-colored rock face. The climber is positioned on the left side of the frame, facing away from the viewer and slightly to the right. The rock surface is rough and textured. The background shows a sunset sky with warm orange and yellow hues near the horizon, transitioning to a darker blue at the top. The overall scene conveys a sense of adventure and physical challenge.

Personality

To begin our exploration into the motivations of these thrill seekers, we look into the self – their personalities. A prevalent theory is that some individuals are born with a personality trait that causes them to seek out novel sensations. Marvin Zuckerman (1979), a Professor Emeritus at the University of Delaware, defines sensation seeking as a personality trait that causes individuals to seek out “varied, novel, complex, and intense sensations and experiences,” even at the risk of “physical, social, legal, and financial risks”. Zuckerman and his colleagues also identified four subscales within the sensation seeking personality trait: Thrill and Adventure Seeking, Experience Seeking, Disinhibition and Boredom Susceptibility. The idea behind this theory is that individuals who score higher on these scales typically require a higher level of arousal than others to maintain an optimal level of stimulation, thus making them more likely to engage in extreme sports.

It seems like an obvious conclusion – individuals who require a higher level of arousal would seek out activities that are more intense and exciting. However, numerous studies have also been unable to find a significant difference in the level of sensation seeking between participants of extreme sports and their “non-extreme” counterparts. This means that while the sensation seeking personality trait might be able to account for some aspects of extreme sport participation, it is not a holistic representation of the motivations behind an individual’s desire to participate in extreme sports. They are, after all, not the only way an individual can make up for the gap in their arousal levels.


A person wearing a grey hoodie and dark pants is captured mid-air while mountain biking. They are jumping over a large, light-colored log or rock. The background is a dense forest of tall evergreen trees under a bright, slightly overcast sky. The overall scene conveys a sense of adventure and outdoor recreation.

Motivation and Emotion

Moving past personality, we can also consider theories surrounding motivation and emotion to examine why individuals would participate in extreme sports. A relevant framework we can use comes from reversal theory. Reversal theory posits that there are eight kinds of “motivational styles” that humans move between, and that we experience and view things differently depending on which of these styles we are in at the current time (Apter, 2001). These eight domains are formed by four opposing pairs. The particular pair that we can hone in on for our examination of extreme sports lies between the “Serious” (telic) and “Playful” (paratelic) domains. High levels of arousal in the telic state usually leads to feelings of anxiety. Meanwhile, the converse is true for the paratelic domain, where high levels of arousal are generally experienced as a pleasant form of excitement. The model also suggests that there are dominant states that some individuals slip into more often than the other; that is to say, a person who is “paratelic-dominant” would spend more time in the playful domain and thus seek out more highly arousing activities.

Sport psychologist Pain (2004) looked into this theory through a case study, as he sought to explain why a certain individual had wished to continue participating in extreme sports despite serious injury. The scores concluded that the individual was extremely paratelic-dominant and had a robust “paratelic protective frame”, which gives a person a sense of safety despite the dangers and threats around them. The reversal model highlights how different people view experiences differently, and that it is this difference that drives certain individuals to participate in extreme sports.

However, there has also been a recent shift in the research of the motivation behind participants of extreme sports. The two theories described above looked into an individual’s tendency to seek out risk, while current research tends toward the search of positive psychological experiences. Extreme sports could be an avenue through which an individual reaches the fifth tier of self-actualization in Maslow’s Hierarchy of Needs. Abraham Maslow (1943) describes this tier as one’s desire to achieve one’s fullest potential and to accomplish everything that one can.

A full-page background image of a skateboarder in mid-air, performing a trick on a ledge. The skateboarder is wearing a dark t-shirt, blue jeans, and white sneakers with orange soles. His arms are outstretched for balance. The background shows a clear blue sky and the golden-yellow roof of a traditional building with ornate details.

To reach this tier, an individual is said to seek out peak experiences and "flow", which is an intrinsically rewarding experience. Csíkszentmihályi (2000) described the state of flow as an experience so rewarding that individuals would want to repeat it for the sake of achieving it again. This runs counter to what was previously suggested about the motivations of these individuals, yet it is a surprisingly accurate depiction of many extreme sport athletes.

Alex Honnold, a free-climbing legend who scaled El Capitan without safety equipment, said this in an interview: "I don't like risk. I do it because it's so much fun... like a game." Honnold added that he achieves a "euphoria from a focus so acute that pain ceases to exist" (Rich, 2015). Honnold had spent hundreds of hours over a period of a year attached to ropes in preparation for his actual free solo climb on El Capitan. As he scaled the route, he memorized and took down notes so as to reduce the risk of tackling the course to an absolute minimum. The same could be said for athletes of other extreme sports, where they too spend thousands of hours of practice to create an environment where they can be confident in doing death-defying stunts in – all while keeping their risk to the utmost minimum as well. This goes to show that extreme sports athletes are well aware of the risks they take, and do not pursue such activities with complete abandon, ensuring maximum enjoyment whilst guaranteeing that they come out of the experience alive.

Are all participants of extreme sports adrenaline junkies? Do they all have a death wish? Or are they seeking out an experience so euphoric that they willingly go to the extremes just to feel it again? Personality and motivational states have provided us with some insight as to why some individuals participate in extreme sports, while the subsequent positive psychological experiences account for why they stay hooked. Yet, this begs the question of how extreme is extreme - what risks are worth taking, and what limits would you push for some excitement and adrenaline?

Motivation: Lessons from Modern-day Athletes in Singapore

Compiled by: Andrea Ong

“Diamonds are only made under pressure” is a commonly tossed-around phrase, typically used to encourage persistence and endurance through trials. In the context of sports, competitive athletes seem analogous to diamonds under immense pressure and numerous stressors.



Stress (in sports-related research) is defined as a continuous process, requiring individuals to manage their environment, make evaluations of possible situations they find themselves in, and strive to cope with problems that may arise (Fletcher, Hanton, & Mellalieu, 2006; Olusoga, Maynard, Hays, & Butt, 2012). To help cope with such overwhelming stressors, leading theories on sport training suggest that psychological preparation plays an essential role in any training program for world-calibre sporting events (Bompa, 1999; Zatsiorsky, 1995).



In the Shoes of an Olympian

Allow me to paint a picture of those who undergo such preparation daily: Olympians.

To qualify for the Olympic Games, athletes are required to undertake a multi-faceted preparation program, which consists of a blend of physical, technical, tactical, and psychological trainings (Bluemenstein & Lidor, 2008; Stambulova, Stambulov, & Johnson, 2012). Upon reaching the Olympic Village, where athletes stay for the duration of the Olympic Games (roughly three weeks), environmental factors that would easily interfere with preparation include a nerve-racking atmosphere, countless distractions, and a lack of privacy due to high volumes of media coverage (Blumenstein & Lidor, 2008). In addition to the aforementioned external stressors, athletes (and coaches) are

exposed to internal pressures, such as the expectation to clinch medals and achieve the best possible results while representing their country in arguably the world's most important international sporting event.

Taking a step back from the international sporting scene, I wondered if psychological preparation is as important and relevant for our national athletes. In my attempt to understand the pressures our local "diamonds" face in their competitive sporting endeavours, I interviewed athletes Brandon Ooi, Constance Lien, Sheik Ferdous, Sarah Kang, and Sabelle Kee, to find out more about their training regimens and their sources of motivation. (More details on their sporting profiles can be found at the end of this article).



1. How do you cope with the pressure of representing Singapore as a national athlete?

Brandon: I feel that the best way to cope with it is to remember why I'm doing what I'm doing and to centralize my focus onto myself and what I need to do in the given moment. If I perform to my best ability, I have no regrets and I will be able to answer for myself with confidence after the race or event.

Constance: What I do to ground myself is to recognise that I'm doing this for me and not for anyone else. I tell myself to control the controllables. At the end of the day, what matters is my own happiness and love for the sport. As long as I love the sport and I am passionate about it, I should not worry about the pressure.

Sabelle: For myself, I often try not to overthink how I have to perform in the competition to get a podium finish or what expectations I need to meet. This often has a negative impact on my performance if I think too much about it. I usually clear my head and enjoy the moment of being with my teammates and friends.

2. It is unrealistic to be at a peak state of performance at all times. How do you self-regulate your emotions and negative self-talk on "off-days"?

Constance: It's about sitting with and acknowledging your negative emotions and realising that it will pass instead of trying to sweep it under the carpet. Another thing is, I love penning down my emotions and mindmapping it out because it helps me heal. As I write it calms me down. I can sit in and just slowly work through my negative emotions.

Sheik: Always keep the end goal in mind. It's normal to have "off-days". We're still humans and we get tired, but we will be at our peak when it matters.

Sarah: We have to remember that we are only human and an essential part of what being human entails is accepting that there will be days when you are mentally and/or physically drained. When I am in a rut, I always try to be kind to myself and to be positive in my self-talk. I would also take this time to indulge in activities I enjoy and that relax me. Whether it be watching a few episodes of my favourite sit-com, getting myself a nice plate of pasta, or just simply surrounding myself with my loved ones, I know that it is important to rest and recharge in order to come to training stronger.

A high-angle, top-down view of a swimmer in a pool. The swimmer is wearing a white swim cap and is positioned in the center of the frame. The water is a vibrant blue with visible ripples and splashes around the swimmer's head and shoulders. The swimmer's arms are extended forward, and their head is slightly above the water surface.

3. What setback(s) have you faced in your sports journey? How did you deal with it/them?

Brandon: I think the biggest setbacks have been the ones that I didn't perform the way I should have, knowing full well that I could've done much better. A high-profile example would be my first SEA Games in 2011 where I had a finger injury during the race. I couldn't put in much effort on my right stroke, and possibly dragged my partners down a position or two during the race. It felt terrible and I knew I could've done better without the injury. I think it took quite a while for me to come to terms with it and understand that these things could happen to anyone. I did get out of it through reminding myself that we cannot change what has happened and that I can only change what happens in the future. I took this setback as a learning experience and a motivator to do even better next time. For me, it took 2 SEA Games to finally win the Gold medal.

Constance: I still have anxiety and depression and, when I lose, I'm very hard on myself. Dealing with my inner demons has always been very challenging for me, and they always come out leading to the competition. But those losses make me more driven than ever to win the next time. Apart from recognising that there is nothing wrong with losing, it's also about what you do in those situations. Surrounding myself with my very supportive system in the gym allows me to talk about it and empower myself in the process.

Sarah: I struggled for a while with eating healthily and I did this in various methods. I used to starve myself for the whole day and proceeded to binge and overeat at night. This only made me feel worse mentally and led me to repeat the same cycle the next day. Another instance was when I cut out eating rice for fear of gaining weight. And there was another instance where I tried going on a liquid diet, which did not sit well with my stomach. Ultimately, I reached a point where my body was feeling so weak as a result of all these drastic changes in diet. This hindered my ability to train, as I simply did not have the energy and self-esteem. And then I had a realisation that I needed to be smart about my diet to train at the level I needed to. What this meant for my body was mini meals and snacks in between trainings to keep it going at its best. The best thing I did for myself was to listen and be in tune with my body and to do research about the science of the body and nutrition that ultimately helped my body to heal.

4. How do you stay focused and motivated? Are there specific techniques that help you with mental conditioning (e.g. visualisation, relaxation)?

Brandon: I always visualise myself racing and winning a competition. The feeling when you know you've paddled a really good race and you're the best in the field at that point of time amongst real worthy adversaries really feels amazing and I think I always use this feeling to make sure I'm motivated.

Sheik: I visualise myself in the ring and what I am going to do. Also, I visualise winning which helps a lot. When we're positive, we attract positive energy. Hence, I surround myself with like-minded people. They have the same drives, goals and positivity.

Sabelle: I do not watch any of my competitors or other events on the day of my competition as these would feed my nerves. Additionally, I practice visualization at least three times, once in the hotel room, once at the site, and once just before competing. This helps me get into the mental frame of not only competing but also my posture and stance before I get into the water. I also design a procedure of what warmups I do and simulate this during trainings to get the full visual experience even before competitions.



5. Apart from being challenged physically, mental health also affects performance. What were some common mental health challenges you (or your peers) faced?

Brandon: Not so much clinically diagnosed, but I think depression can be a very possible and powerful condition within the sporting community. In a world where everything is determined by who gets what result and how you look and how much money you earn, your self-esteem can be tied to the certain part of you that is struggling to break through to or maintain those high standards.

Constance: I would say common mental health challenges would be the fear of falling short, fear of failure, anxiety, depression. Personally, I had an eating disorder and still struggle with depression and anxiety.

Sarah: Anxiety, "down" moments, negative body image, and low self-esteem.

Sabelle: I think it is really about having to meet expectations set by people, or even the country, of winning or getting a podium finish.

6. In sport psychology, motivation includes both extrinsic (e.g. medals, social recognition, family) and intrinsic motivators (e.g. pride, desire to succeed). What were some of your personal motivators?

Constance: In terms of extrinsic motivators, it'll be being at a level to help others. I do feel that I need social recognition in order for me to relate to others, help others, and be heard. In terms of intrinsic motivators, it's definitely the desire to succeed and be the best I can be in my sport. Every time I fight for myself, I grow as a person and I never want to hit the stage where I feel like I don't need to grow anymore.

Sheik: I trust that if we have the will, we can do it. As the saying goes, "when there's a will, there's a way."

Sabelle: My motivations are both extrinsic and intrinsic, where I often desire to gain a medal from my competitions but internally I wish to succeed and beat my own expectations I set for myself. At the end of the day, I want to make sure that I do not regret anything about my actions and performance.

7. Finally, do you have any tips for the layman who is struggling with being motivated?

Brandon: Put a poster that reminds you of your goals in your bedroom and make sure it's the first and last thing you see when you wake up and before you sleep. Make it a habit to actively do something towards that target every day but remember to take breaks.

Constance: Remember why you started, why you love it, and accept and acknowledge that you will have bad days, but they will pass.

Sheik: Be gentle to yourself. Motivation has to come from within. Create realistic and achievable goals and slowly push the bar higher. Never think that you can't do it.

Sarah: Surround yourself with good friends and family that love and support you. Be kind in your thoughts to yourself. The worst thing you can do is compare yourself to others because we are all on our own race. Try smiling more, even if you don't want to; you'd be surprised what it can do to uplift your spirits which can help you get motivated again.

Sabelle: Find something you are passionate and driven about and take pride in what you do!



About the Athletes



Brandon Ooi competes for Singapore in the sport of Canoe Sprint (Kayak Discipline). He has participated in the 2011, 2013, and 2015 SEA Games, the 2014 and 2018 Asian Games, as well as, the 2010 Youth Olympic Games, among other Asian and World level Canoe Sprint events.

Constance Lien was previously a national swimmer but now competes in Jiu-jitsu. She won the gold medal in the 2019 SEA Games, and silver medal in the 2018 Asian Games. Constance was also crowned world champion at the World International Brazilian Jiu-Jitsu Federation (IBJJF) Championships last year. In addition, Constance is working on her own Mental Health initiative: "Leading Hearts". It aims to have athletes as mental health advocates who build and empower kinder hearts in a community that normalises vulnerability as strength.



Sheik Ferdous is a Silat Exponent and has played in numerous major competitions such as the 2013, 2015 and 2017 SEA Games, 2018 Asian Games and 2015 and 2018 World Championships. Sheik is also currently crowned a world champion in Silat.

Sarah Kang used to train pre-professionally as a classical ballet dancer. She has participated and won awards in the 2013 World Ballet Competition, 2013 American Ballet Competition, and 2014 Nihon Ballet Academy Competition in Tokyo.



Sabelle Kee is part of the National Waterski and Wakeboard Team. The main event she competes in is Trickskiing. She podiumed in the 2015 and 2017 SEA Games and has participated in various other competitions from 2014 to 2019.

**Gold medals aren't really made
of gold. They're made of sweat,
determination, and a hard-to-
find alloy called guts.**

Dan Gable



What is the single trait that separates winning athletes from also-rans? Or is there one?

Edgar K. Tham, Michelle Kong, and Alida Toh

Athletic Personality?

This is a perennial question that has been asked for decades! So, what is the answer? Well, thousands of research studies have been conducted on the various aspects of sport personality since the 1960s and 70s. And interestingly, to date, the research has yielded very little evidence for there being a relationship between athlete personality and sporting performance.

Ok. So that's not much use! ...How now?

The 5C's

Fortunately, more recent studies have explored the specific mental skills or strategies used by numerous competitive athletes. The conclusion made is that successful athletes do seem to apply more effective mental skills and strategies than non-winners. In addition, from our consulting work with medal winners at the Southeast Asian (SEA) Games, Asian Games, Commonwealth Games and Olympic Games since 1993, we have found that athletes need and should apply the 5C's of mental toughness:

1. **Composure:** Staying calm and relaxed before and during any pressurising situations,
2. **Concentration:** Paying attention and focusing on what matters most in these stressful situations,
3. **Confidence:** Having self-belief and trust in one's own abilities and preparations,
4. **Coping with Challenges:** Preparing for, and recovering from, mistakes and adversities during a competition,
5. **Cohesion:** Developing a team-oriented attitude and mindset.

Let's discuss how each one can be developed to help fully maximize your competition potential.



1. Composure

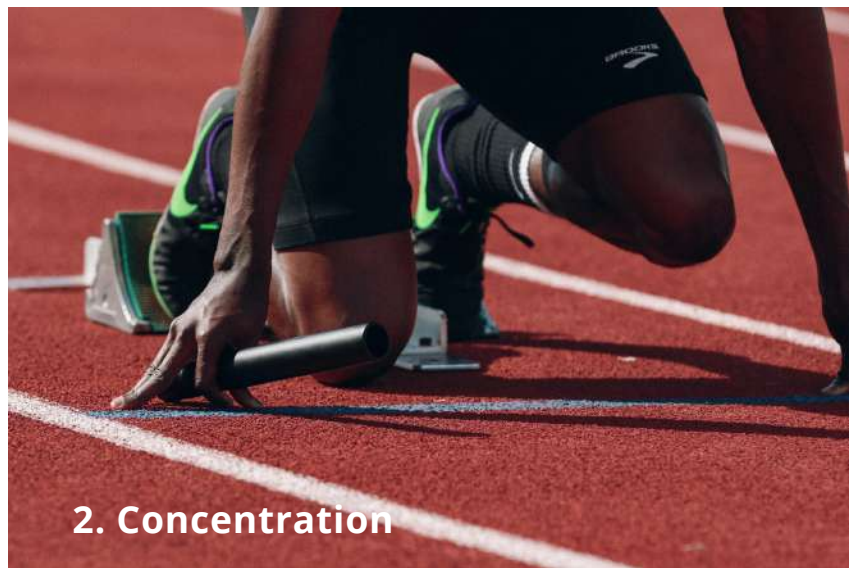
"Before the [Olympic] trials I was doing a lot of relaxing exercises and visualization. And I think that that helped me to get a feel of what it was gonna be like when I got there. I knew that I had done everything that I could do to get ready for that meet, both physically and mentally."

— Michael Phelps

Winner of 8 gold medals at the 2008 Beijing Olympics (Swimming)

Here are some practical tips to help you be calm and relaxed before and during competitions:

- Don't over-emphasize on competition outcomes or results. They usually put undue pressure on you due to their unpredictability. Focus instead on the process of competition (i.e., your competition plan; more on this in the next section on Concentration).
- Learn to use relaxation exercises on a regular basis. This teaches you to be in tune with your body's tension levels and will eventually enable you to relax on command on competition days.
- Practice and apply centered breathing (abdominal breathing), with longer exhales than your inhales (e.g., regular 4-second inhales, followed by 8-second exhales).



2. Concentration

"My thoughts before a big competition are usually pretty simple. I tell myself: Get out of the blocks, run your competition, stay relaxed. If you run your competition, you'll win....Channel your energy.

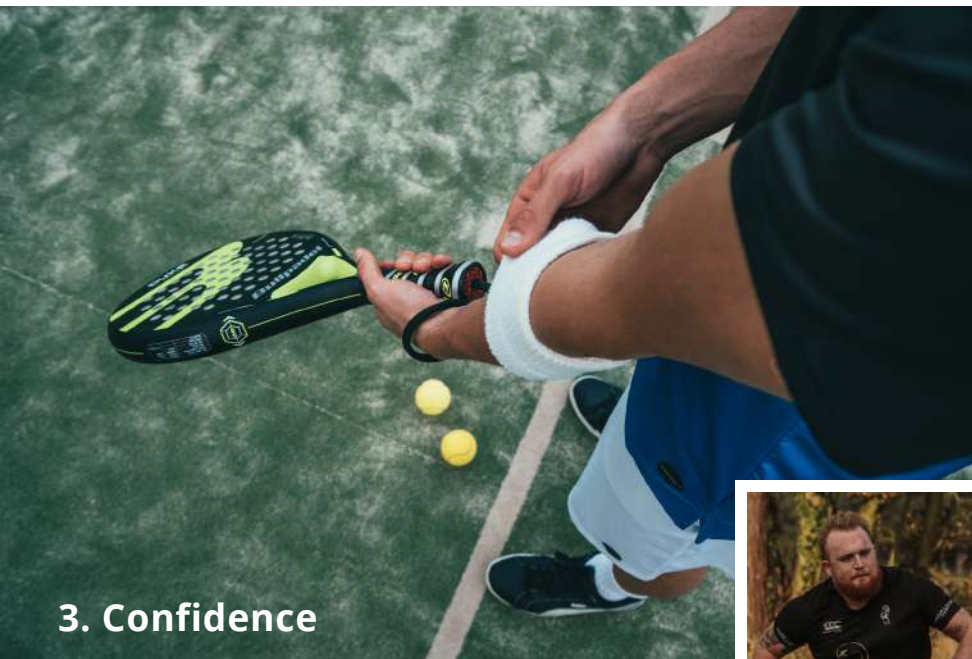
Focus."

— Carl Lewis

Multiple Olympic gold medalist and World Champion (Track & Field)

Here are some practical tips to help you be more focused and follow your competition plans:

- Have a tried-and-tested competition plan months before the competition day.
- Don't get caught up with what's going on around you at the competition site. Just concentrate on your own process goals and get the job done!
- Control the controllable. Let go of things that you know you cannot control and focus instead on the things you can control (e.g., your competition plans, rhythm or stride, tactical plans).



3. Confidence

"I dreamed. I believed and really hoped that I could do it. So I put in a lot of work and it paid off."

— Roger Federer

*20 Gland Slam Singles Title Winner
Former World No. 1 Male Tennis Player (2004)*

Here are some practical tips for building self-confidence:

- Build your competition confidence by practicing difficult and challenging workouts. Consult your coach or trainer on specifics.
- Mentally rehearse your competition plan daily in the weeks and days leading up to your actual competition day.
- Recall all your past accomplishments in both in previous practices and past competitions (where relevant). This raises self-confidence as the very fact that you have done it before can help you believe that you can do it again.



4. Coping with Challenges

*"Sometimes you hit rock bottom.
But everyone does at some point in their life.
The important thing is to get back up."*

— Joseph Schooling

2016 Olympic Gold Medalist (Swimming)

Here are some practical tips to help you build your ability to cope with any kind of challenges before and during competitions:

- Expect the unexpected (e.g., flat tires, mechanicals, bonking). Be prepared and have a plan to deal with anything and everything.
- Keep your thoughts positive. There is a saying that goes like this, "A positive mindset doesn't guarantee success, but a negative mindset guarantees failure!"
- Remind yourself that the physical discomfort is temporary. It will soon pass... Just hang tough and finish the competition that you've planned and trained for!



5. Cohesion

"Scoring goals is a great feeling, but the most important thing to me is that the team is successful – it doesn't matter who scores the goals as long as we're winning."

— Cristiano Ronaldo

Balloon D'Or (2008, 2016, & 2017) (Soccer)

Here are some practical tips for enhancing the cohesion and team spirit with your coach(es), teammates and important others:

- Acknowledge and appreciate all the people involved in your preparations (e.g., teammates, coaches, parents). We are all together in this!
- Inform everyone on your team about your personal preferences for competition preparation (e.g., diet, quiet time, space to do your own thing). This minimizes confusion and/or conflicts.
- Understand that, during competition periods, everyone will be feeling a little stressed up. So be more forgiving of yourself and others.

Final Words of Advice – Practice. Practice. Practice. Mentally, that is!

Mental toughness can be developed over time through systematic and regular mental practice. The purpose is to be able to automate the application of relevant mental skills, such that it can be done without much thought during a competition. Best wishes!



The only person who can
stop you from reaching your
goals is you.

Jackie Joyner-Kersey

EXERCISE AVERSION: AN UPHILL CHALLENGE TO START

Ivy Ng



Ever found it so hard to start moving, even though you know that exercise is beneficial for you? The science on the health benefits of exercise has been overwhelmingly positive and widely vocalized around us – in Health Promotion Board ads and mass media. Despite the nagging thought at the back of our heads, why might some of us feel like we just cannot overcome that initial inertia to get moving?

Are some people simply more inclined towards exercise than others?

Exercise releases dopamine and has been documented to increase instances of positive feelings. In fact, within five minutes of moderate exercise, a mood-enhancement effect can be felt (Weir, 2011). Voluntary exercise has also been found to produce stress resistance, helping us build resilience against negative events (Greenwood, 2018).

For that reason, exercise actually creates an upward spiral of positive outcomes and becomes a self-reinforcing activity for those who regularly do it.

For all the good exercise brings, why does it seem like an uphill challenge to start?

Wurtman (2011) discussed some reasons why some people may avoid exercising, which include:

Fear of Embarrassment. For people who have not been exercising, it may not be just physically but also mentally demanding. Panting heavily while others run past us like a breeze does not look desirable, and certainly will not feel so. In a crowded gym or stadium, we are bound to encounter a gamut of exercise personalities – this fear of judgment from those around us may hence put off our plans for exercising.



Lack of knowledge. Even as we wish to exercise, we may be at a loss on how to start. While gym memberships and class pass subscriptions are all the rage right now, the learning curve once you join these institutions may be steep. Gyms and fitness classes may involve specific moves and use of equipment which we may be unfamiliar with. Moreover, misuse of equipment may pose a risk to ourselves, exposing us to potential injuries.

Dislike for sweat. For those who are inclined to exercise, they may come out of an exercise session feeling refreshed and rejuvenated. However, for others, what instead comes to mind is the dripping sweat all over our bodies – especially so in a country as hot and humid as Singapore. Thankfully, indoor exercising has become increasingly accessible through many venues such as badminton or basketball courts, and most gyms are now air-conditioned.

Unpleasant past experiences. Some who might not be naturally physically active may already find ourselves stumbling and struggling during physical activity.

During such times, a negative comment by others may make us feel even worse about our abilities, further unravelling a possibly unsteady resolve. These memories may stick with us for a long time, causing us to avoid exercise, either out of fear of being criticized again or because of the doubt that we start to cast on ourselves.

How do we overcome exercise aversion?

Parachin (1995) suggested some ways we can make exercise more appealing or achievable for those who want to start but find it a daunting task.

Seek other forms of exercise. Rather than forcing ourselves to take up traditional forms of exercise that we may not enjoy, we should seek out different forms of exercise until we find the best fit. This has certainly been made more possible with the emergence of a wide range of fitness centers and sports programmes across the island. Singapore even has a statutory board, Sport Singapore, which actively promotes fun and meaningful sporting experiences for people of all ages.

Combine travel with exercise. Instead of taking the bus, consider walking to the MRT station. Instead of alighting at the stop nearest to you, try alighting a stop earlier and walk the rest of the way until you reach your destination.

Exercise socially. Instead of a dinner with friends, opt to participate in sporting activities together. Cycling and hiking are some of the viable options in Singapore, in which you can keep healthy while enjoying the beautiful sights in Singapore.

Bundle exercise with temptation. Temptation bundling is the process of pairing something desirable with something that you know you should do, but may not necessarily like (Kompf, 2020). By pairing an activity or item you enjoy with exercise, you can begin to associate positive feelings with exercising, thereby increasing your motivation.

It can be simpler than we imagine.

Not everyone needs to take on a fancy exercise routine or membership at the gym – a walk around your neighbourhood before going for breakfast or a stroll at the park are also good forms of exercise. The key is in finding something convenient and easy to practise, to build up momentum and confidence in your ability to exercise. This opens up the gateway into eventually exploring more ways to exercise and keep active. In that way, you might find yourself becoming less fearful of embarrassment, and more confident and motivated to maintain an active lifestyle.



Yoga and a Holistic Well Being

Laura Jonathan

It is a known fact that having regular exercise is an important component to overall well-being. While most exercises achieve several benefits, they are often confined to just the body. Yoga, however, aims to achieve a holistic well-being (WebMD, 2020), targeting at the physical, emotional and mental levels.

Yoga is an ancient practice originating in India about 5000 years ago and the word "yoga" comes from the Sanskrit word "Yug", meaning union. It is a philosophy and way of living aimed at having a union and balance between the body and mind to achieve inner peace and well-being. The practice of yoga involves stretching exercises, deep relaxation techniques, and static postures that encourage an incorporation of a healthy lifestyle, while instilling a positive and optimistic outlook in life (Yogawiz, 2017).





Physical Well Being

With deep stretches and postures, yoga helps to improve the strength of muscles and the core, joint flexibility, and tones the whole body. Research shows improved functions of the body systems including endocrine, neurological, immunological and cardiovascular systems (National Library of Medicine, 2011). It also encourages physical endurance and balance by stretching the various body parts and keeping still in challenging postures. Yoga helps to enhance stamina, reduce body fat, and improve blood circulation. With the practice of deep breathing, it also increases air flow to the lungs resulting in better and fuller breathing. Whether it is a zen, deep-stretching session or a *vinyasa* flow with a lot of movement and sweat, every yoga practice will leave the body feeling physically stronger and energised.

Mental Well Being

Yoga also helps to manage depressive and anxiety symptoms, reduces stress, and promotes better sleep. The meditation and deep breathing aspects of yoga activate increased neuroplasticity, which is a process of reorganisation of the nerve cell networks in the brain. This increased neuroplasticity helps to improve concentration and memory. It also allows you to relax and stay calm. When practised regularly, a person experiences mental clarity which helps to declutter the mind off negative thoughts and keep unpleasant emotions at bay. Biologically, endorphins are released to counter chemicals connected to stress such as cortisol. This helps to increase positive thoughts and feelings of contentment, making one feel revitalised and rejuvenated.

Emotional Well Being

During a yoga practice, the practitioner is encouraged to submit, let go of control and self-surrender to the poses involved, and to be aware of the body. By doing so, there is more acceptance of the state of the body and mind and encouragement to stay present with the here and now. This helps the practitioner to acknowledge their thoughts and emotions more easily and to accept them, allowing for a smoother and healthier regulation of emotions. It also helps increase tolerance to challenging situations and instils resilience, determination, and willpower. In the long run, this helps to boost emotional stability and increase one's sense of self-esteem (WebMD, 2020).



Yoga For All

The best thing about yoga is that it can be practised by anyone regardless of age and fitness levels, and its benefits can be felt after just a single practice. You can choose a variety of yoga practices ranging from low impact and relaxation to a faster flowing one. All you need is a yoga mat and to schedule 15 – 60 minutes of your time, away from any distractions. Yoga is a lot more than just a physical exercise; it is a complete way to experience good overall health – physical, mental and emotional. On top of gaining a more toned up body, the ultimate goal of yoga will help to develop an even deeper meaning to holistic well-being, peace of mind and happiness.

Additional Resources

Yoga Apps:

<https://www.oprahmag.com/life/health/g31672490/best-yoga-apps/>

Local Yoga Studios:

<https://www.shape.com.sg/fitness/affordable-yoga-studios-in-singapore-with-classes-under-20/>

YouTube:

<https://www.womenshealthmag.com/fitness/g29264172/best-yoga-videos/>



Burnout in Singaporean Coaches

Nathanael Ong

Coaches form the backbone of Singapore's sporting community, often performing the role of guide and mentor to their young charges. In my own life, I have been greatly influenced by my rugby coach in Anglo Chinese School (Independent), Mr Adrian Chong, whose dedication and care helped to mould me in my formative years as a teenager. However, coaches are also susceptible to burnout, due to the intense demands and rigours of the job. They have to plan training schedules, engage in physically exertive tasks, manage their students, and balance the expectations of various stakeholders such as parents and schools. All of this can weigh heavily on coaches and, if not managed properly, can lead to burnout.

Coach burnout consists of three dimensions: Emotional/physical exhaustion, sports devaluation, and reduced sense of accomplishment. Emotional/physical exhaustion involves both the affective and bodily aspects of exhaustion, where the coach feels constantly fatigued and drained of energy. Sports devaluation refers to situations where the coach stops caring about his/her sport and coaching performance. Reduced sense of accomplishment describes feelings of reduced competency and effectiveness that the coach might experience in his/her coaching role. All three dimensions have shown to be related to greater turnover intention, and often result in coaches leaving the profession.



In my own research (Ong & Zhao, 2019a,b), I have sought to investigate the phenomenon of burnout within the Singaporean coaching community. Being a coach in Singapore presents its unique set of challenges due to the cultural context and coaching landscape that is present in our country. Firstly, Singapore possesses a very results-oriented culture, where there is constant pressure by schools to achieve a “top four” placing at the National School Games (NSG), or successfully produce athletes who can obtain direct school admission (DSA) into prestigious schools. This puts incessant pressure on coaches, who are often required to fulfill

certain performance targets so that their contracts can be renewed. Singaporean coaches also work notoriously long hours, with many coaches choosing to pack their schedules in order to maximise their earnings. This results in a lack of time for rest and recovery, contributing to fatigue and exhaustion in the long run. Coaches in Singapore also experience a lack of support and respect for the coaching profession, where people do not see it as a viable or well-paying career choice. As such, they have to contend with the perceived stigma held by society, and it is difficult for them to find individuals who can empathise with their struggles.



Singaporean coaches who face burnout shared that they experienced a dip in motivation during coaching sessions, where they would simply go through the motions and not give their maximal effort. They also lost the joy and passion that convinced them to enter the coaching profession in the first place. Some coaches would even find themselves wishing that their students would not turn up for training, so that they could get some much needed rest. Other coaches would lose their ability to control their emotions, and be prone to outbursts of anger towards their students.

The issue of burnout was found to be more prominent for younger Singaporean coaches, who might not have as much experience and savvy as their older counterparts, and may not have developed strong coping mechanisms to deal with the stressors that they face. Older coaches understand how to pace themselves and manage their workload properly, and have honed their coaching technique so that they do not need to expand as much energy during coaching sessions as compared to younger coaches.



Part-time coaches also do not seem to be as affected by burnout as full-time coaches, as they enter into coaching for reasons such as interest and passion, while full-time coaches depend on coaching for their livelihoods. Female coaches also seem to be more prone to burnout as compared to male coaches, due to the fact that they operate in a male-dominated environment, and have to constantly battle the societal perception that coaching is mainly a profession for men and not women.

In order to address burnout in coaches, it is recommended that coaches adopt the correct mindset and perspective while coaching. It is important for coaches to constantly find intrinsic value in their coaching, where they take pleasure in transferring knowledge and skills to their students. Coaches should not be preoccupied with attaining success or financial rewards, but should endeavour to help their students master and enjoy their sport. Coaches also need to adopt a long-term perspective towards coaching, and aim for longevity in the profession. Coaches are advised to be more selective in taking on coaching assignments, so as to ensure that they have enough time for self-care and relaxation activities. Having a strong social support circle is also integral to combating burnout, and coaches need to link up with fellow coaches who face similar struggles and encourage one another. It is also beneficial for younger coaches to find older coaches to mentor them, as they can share valuable tips and advice from their own coaching journey.

In conclusion, burnout is a prominent issue among the Singaporean coaching fraternity and has a detrimental effect on coaches' wellbeing and desire to remain in the profession. More needs to be done to help this special group of individuals deal with burnout, as they play a vital role in Singapore's sporting ecosystem and help to nurture the next generation of our nation's men and women.

Breaking the Olympic Oath – Cheating in Sports

Charmaine Leong

“We promise to take part in these Olympic Games, respecting and abiding by the rules and in the spirit of fair play. We all commit ourselves to sport without doping and cheating. We do this, for the glory of the sport, for the honour of our teams and in respect for the Fundamental Principles of Olympism”

– The Olympic Oath

This sacred vow that athletes take before the Olympic games aptly encapsulates the ideals of sportsmanship, fairness and hard work – which many associate with sports. Yet, while most athletes do abide by the Olympic Oath, unsportsmanlike behaviours (e.g., cheating) have also been recorded for centuries, dating back to the very beginning of the Olympic games in ancient Greece. More recently, we might recall Lance Armstrong’s infamous doping scandal or Tonya Harding’s alleged involvement in the orchestrated attack of skate-rival Nancy Kerrigan. Even in the relatively newer field of esports, cheating has yet again reared its head. In the 2012 League of Legends world championship match, members of the Azubu Frost esports team repeatedly peeked at the audience’s screen to discern their opponents’ in-game location. These examples make it seem as though cheating continues to fester and soil the sanctity of sports, no matter how much sports committees and leagues try to advocate for fair play by implementing harsh bans and fines. Why then is cheating still so pervasive in sports? What could possibly perpetuate such cheating behaviours?

THE DARK TRIAD OF PERSONALITY TRAITS

Athletes with certain personality traits might more likely cheat if an opportunity were to present itself. Specifically, the “Dark Triad” of personality traits, namely narcissism, psychopathy and Machiavellianism, have been frequently implicated in cheating behaviours (Sipavičiūtė & Šukys, 2019). Narcissistic individuals have an inflated sense of grandiosity and superiority over others; individuals with psychopathic tendencies tend to be thrill-seeking and have little empathy; and Machiavellianism entails a tendency to manipulate and deceive others (Veselka et al., 2012).

Studies found that psychopathy and Machiavellianism were associated with positive attitudes towards doping, while narcissism was associated with more positive beliefs about cheating (Sipavičiūtė & Šukys, 2019; Nicholls et al., 2017). Nicholls and colleagues (2019) further found that individuals with the Dark Triad personality traits not only had more positive attitudes towards doping and cheating, but were also more likely to cheat while doing an unsolvable puzzle task.

Still, while personality factors may predispose some to cheat they cannot fully account for why athletes might eventually end up cheating. This is especially so for athletes without the so-called Dark Triad traits that do cheat as well.

GOAL ORIENTATION

Unbeknownst to many, the type of goals an athlete has can actually further spur cheating behaviours. Dubbed as the achievement goal theory, individuals tend to define their success in either of the following ways: (i) mastering the task or showing personal improvement (task-orientation) or (ii) being better or more superior than others (ego-orientation) (Nicholls, 1989). Individuals with task-oriented goals typically use themselves as a reference to measure their success, while individuals with ego-oriented goals generally use others. In a study conducted by Ring and Kavussanu (2018), athletes who dishonestly improved their race times scored higher in ego-orientation and lower in task-orientation, as compared to athletes who did not cheat. Moreover, athletes with ego-oriented goals were more likely to accept cheating behaviours, whilst athletes with task-oriented goals were less likely to accept the same cheating behaviours (Ring & Kavussanu, 2018; Sipavičiūtė & Šukys, 2020). When athletes in a team collectively define their success in terms of whether they are better than others, it could further foster a team environment which ignores and perhaps even encourages cheating – as long as they can gain an advantage over their opponents.

PARENTAL AND COACHING INFLUENCES

Social influences, particularly those of parents and coaches, also play a large role in athletes' propensity to cheat. Parents who overly pressure their child to succeed and be perfect during their developmental years could enable the child to gradually associate their self-worth with external successes, resulting in the development of a "win-at-all-cost" type of personality (possibly similar to the aforementioned Dark Triad traits) (Kamis et al., 2016). This could occur even before the child picks up a given sport and might subsequently result in the child becoming more open to cheating in the sport they eventually become invested in, if doing so can help maintain their self-worth and identity. Additionally, it was also found that when parents and coaches create an ego-oriented climate, players tend to be more accepting of cheating and doping, as compared to when they encourage players to strive for personal growth (Kamis et al., 2016; Sipavičiūtė & Šukys, 2020; Palou et al., 2013).

However, there is an interesting caveat. Coaches' ego-oriented influence on players is associated with cheating only at the end of the season (Ntoumanis et al., 2012). When nearing the end of the season, opportunities to cheat lessen. This prompts players who are already under a lot of stress to give in to temptation and cheat (Effron et al., 2015; Johnston, 2016). The term "cheat-at-the-end effect" has consequently been coined by Effron and colleagues (2015) to explain this increased propensity to cheat when one anticipates fewer opportunities to do so in the future.



THE MAINTENANCE EFFECT OF CHEATING

Once an athlete starts to cheat, it is difficult to stop doing so. Cheating tends to contradict the morally-righteous perception of the self that most people try to maintain (Traclet et al., 2011). Many become uncomfortable when this righteous perception of the self is questioned. As one cannot take back what they have done or confess without severe punishments, cheaters oftentimes convince themselves that what they did was not wrong, in order to alleviate their distress. It might have begun with trying to justify their actions with excuses such as, "Everyone is doping, I'm only levelling the playing field," or "It's just how the game works" (Traclet et al., 2011). However, over time, cheaters might even successfully convince themselves that they have not cheated at all (Palou et al., 2013; Glick & Begel, 2015). This justification process could explain why many athletes who were later found guilty of cheating had seemed so adamantly sincere when they previously declared their innocence.

CONCLUSION

It is difficult to pinpoint what exactly pushes some athletes to cheat as cheating behaviours are spurred-on by a combination of personality, cognitive and social factors. The very nature of competitive sports is already stressful in and of itself. The addition of coaches and parents who expect players to win at all cost could further make cheating an extremely appealing option. Once one begins to cheat, it is difficult to get out of the cheating-and-justification cycle. In order to break this cycle, perhaps the focus must now return to the athlete as an individual rather than the allure (and pressure) of winning. After all, winning seems to prioritise ego-oriented goals rather than task-oriented ones. This could mean paying more attention to the athlete's mental health and wellness in sports, and allowing athletes to feel more comfortable sharing about the pressures they face, especially when they are tempted to break the Olympic Oath.



Enhancing Mental Health: The Power of Exercise During COVID-19

Edgar K. Tham, Alida Toh, and Michelle Kong

COVID-19 has totally changed the way we live and work. Being a new pandemic, there's also very little information about how we can counter the negative mental health effects it has arguably caused. The good news is that this article has uncovered some recent research findings, and we aim to provide you with some practical lessons that can be used to safeguard your mental health through exercise and physical activity in the midst of these times.

1. TWO SIMPLE REMEDIES FOR THE PANDEMIC STRESS

Meyer, J., McDowell, C., Lansing, J., Brower, C., Smith, L., Tully, M., & Herring, M. (2020). Changes in physical activity and sedentary behaviour due to the COVID-19 outbreak and associations with mental health in 3,052 US adults. *Cambridge Open Engage*.

"Physical activity was reduced by 32.3% among previously active participants but [remained] largely unchanged among previously inactive participants... Concerted efforts to maintain and enhance physical activity participation and limit screen time during pandemic-related public health restrictions are needed to mitigate short and likely long-term mental health consequences." (Meyer et al., 2020).

Key Lessons

1. The pandemic has dramatically reduced physical activity for those who were more active prior to this challenging period.
2. Quarantine (e.g., circuit breaker measures) was associated with higher depressive and anxiety symptoms.
3. The two simple ways to mitigate negative mental health issues are: (a) reduce your screen time, and (b) replace that time with exercise or physical activity.

Personal Reflection and Action Plan

- What are some situations where you can reduce your screen time? List them down.
e.g., consider a certain day of the week (Saturday), or a certain time of the day (morning when it's not too hot outside).
- What types of exercise or physical activities would you like to consider doing? List them down.
e.g., brisk walking in the park, bike riding at East Coast Park, taking Zumba classes on Sunday afternoons.



2. HOW TO FEEL HAPPIER IN THIS PANDEMIC

Heller, A.S., Shi, T.C., Ezie, C.E.C. et al. (2020). Association between real-world experiential diversity and positive affect relates to hippocampal–striatal functional connectivity. *Nature Neuroscience*, 23, 800–804.

"...using geolocation tracking, experience sampling and neuroimaging, we found that daily variability in physical location was associated with increased positive affect in humans.... These results link diversity in real-world daily experiences to fluctuations in positive affect and identify a hippocampal-striatal circuit associated with this bidirectional relationship." (Heller et al., 2020)

Note: The hippocampus and striatum are two parts of the brain that are responsible for processing different experiences over time.

Key Lessons

1. Variety in our daily lives is key to increasing positive emotions.
2. Go outside of the home to exercise, while following all safety and health requirement measures.
3. When exercising, find ways to: (a) change up the route you take to create variability in your physical location, and (b) change the kinds of exercises or physical activities to benefit from experiential diversity.

Personal Reflection and Action Plan

- Plan several (safe) routes you'd like to take when exercising outside. List them down.
e.g., run in a clockwise direction one week and then run in a counter-clockwise direction in the next.
- What are the different types or options of exercises or physical activities that would interest you? List them down.
e.g., some type of aerobic exercise, strength training exercises, frisbee by in the park.

3. THE TYPES OF EXERCISES THAT BOOST MENTAL HEALTH

Chekroud, S.R.; Gueorguieva, R.; Zheutlin, A.B.; Paulus, M.; Krumholz, H.M.; Krystal, J.H.; Chekroud, A.M. (2018). Association between physical exercise and mental health in 1.2 million individuals in the USA between 2011 and 2015: A cross-sectional study. *The Lancet Psychiatry*, 5, 739-746.

"Individuals who exercised had 1.49 (43.2%) fewer days of poor mental health in the past month than individuals who did not exercise but were otherwise matched for several physical and sociodemographic characteristics ($W=7.42 \times 10^{-10}$, $p < 2.2 \times 10^{-16}$). All exercise types were associated with a lower mental health burden (minimum reduction of 11.8% and maximum reduction of 22.3%) than not exercising ($p < 2.2 \times 10^{-16}$ for all exercise types). The largest associations were seen for popular team sports (22.3% lower), cycling (21.6% lower), and aerobic and gym activities (20.1% lower), as well as durations of 45 min and frequencies of three to five times per week." (Chekroud, 2018)

Key Lessons

1. People who exercise regularly had about 1.5 fewer days of poor mental health per month, as compared to their non-exercising peers.
2. Enhanced mental health was strongest for people who exercised for 45 minutes or more, three to five times a week.
3. Even people who only did mild exercises (like walking for 45 minutes three times a week) also benefitted as they too had lower mental health burden.



Personal Reflection and Action Plan

Use this checklist to ensure that the type of exercise or physical activity you are doing can indeed support better mental health!

- Duration: 45 minutes or more
- Frequency: 3 – 5 times a week
- Intensity: mild to moderate levels of intensity

Pandemic or not, people must stay **active** and stay **positive**

Daphne Ng



Together with other sports leaders across the globe in Beijing last year, my team and I discussed one common challenge that has become insidious in today's society – a far less active generation compared to the one before this. A recent World Health Organization (WHO) study states that a majority of adolescents worldwide are not sufficiently physically active, leading to current and future health at risk (WHO, 2019). With the COVID-19 pandemic, it has become extremely challenging as a sedentary lifestyle is now commonplace for children and young adults. Similarly for athletes, there are also no longer competitions to look forward to and training without representing in competitions can be demoralizing. For all of us, we have to be mentally and physically stronger, now more than ever.

Everyone knows that staying physically active is one of the best ways to keep our bodies healthy and strong. Yet, having the consistency and discipline and making it a routine is far from easy. For every successful journey to excellence, one has to encounter challenging obstacles, hard lessons and setbacks, and a myriad of emotions ranging from simple joy, frustration, and even confusion.

What, then, drives people to keep physically active? Why are some individuals so persistent and motivated to achieve their exercise goals, while others just cannot even be bothered with it? Consider the **3Es: Enjoy, Embrace, and Explore.**





Enjoyment in Sports and Exercise

In today's competitive climate, there is an obsession with ranking and excellence. Regardless of whether you are an elite athlete, a young working adult, or a primary school student, success is deeply ingrained in our psyche. To achieve the pinnacle of your desires, we often neglect the joy and passion that comes with the process itself. The lack of positive emotions attached to sports and exercise is, however, unsustainable. By overemphasising success over enjoyment and maintaining the seriousness of the pursuit of excellence, burnout is inevitable.

To achieve sustainability and consistency in staying physically active (or being in peak performance in sports), finding enjoyment in every component of the exercise or sports is essential. Individuals must first be able to identify and conceptualise what keeps them passionate about exercising. Here are some tips to start enjoying your sports and exercise:

1. Take incremental steps to improve every detail of the sports,
2. Remember which parts of the activity or training make you feel good or put a smile on your face,
3. Acknowledge the excitement of activating your muscle fibres and looking more toned up after each practice.

Ratchanok Intanon from Thailand (Badminton World Champion, Women's Single) often smiles encouragingly even when her shots did not quite work out in tournaments.

Embracing Challenges

Every journey to excellence begins with having the right attitude. Attitude is the way an individual thinks, feels, and acts that will strongly influence subsequent behaviour and performance. In the face of challenges and adversities, the decisions you make are ultimately ruled by how you react to the situation. Having a positive attitude is extremely important to maintaining an exercise regime. To do so, we can:

1.

Focus on the positive things (of yourself, your environment, and others in your community)



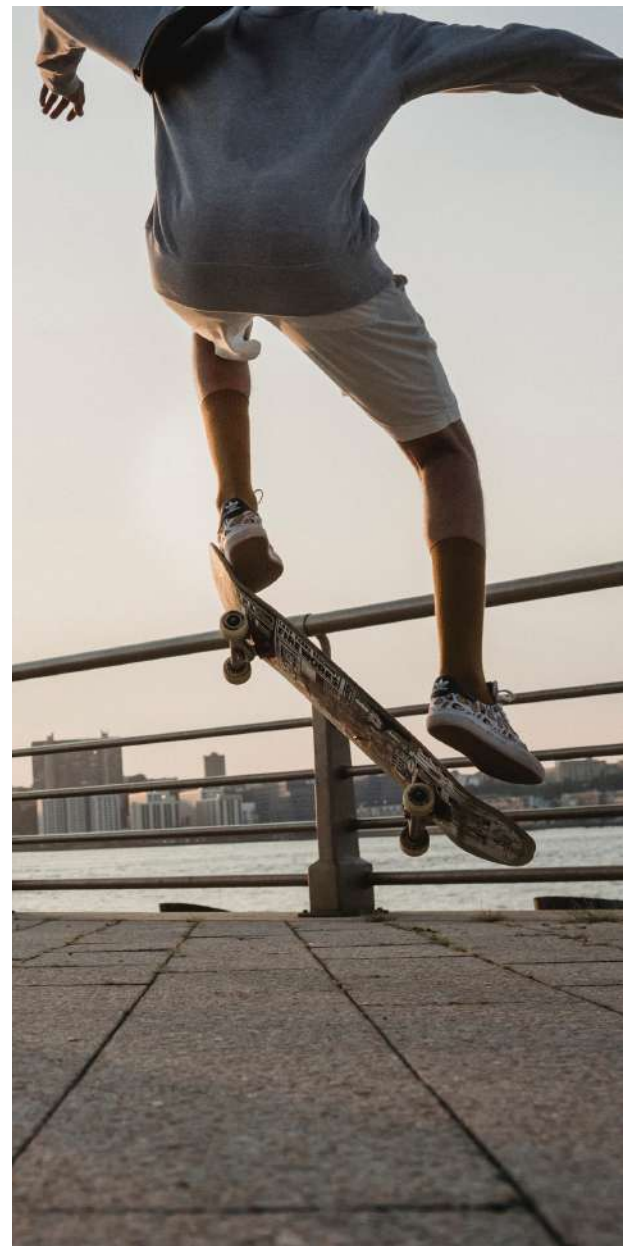
2.

Have a list of positive reminders to help you in your ongoing pursuit of personal excellence



3.

Identify your greatest challenges and pair them with positive thoughts, images, and/or beliefs.



Exploration is the key to sustainability



Life is truly interesting when we have the curiosity to explore. When you are curious, you will be eager to learn more. Being an explorer is not enough, putting it into action with enthusiasm is also important. In your daily physical activity or practice routine, you can:



1. Have a variety of different practice routines so that you may look forward to trying something different,
2. Focus on process goals (journey) and less on the outcome goals (destination),
3. Set weekly action plans and be truthful to yourself when you are reviewing them.

We often set long-term goals without focusing enough on the present. Asking yourself, "What is important now?" is as crucial as what you are going to achieve today, or even in the next hour.

A skateboarder in a black t-shirt, tan shorts, and a blue cap is captured mid-air, performing a trick on a red skateboard. The background is a blurred crowd of people sitting on bleachers in a park setting with palm trees under a clear blue sky. A semi-transparent yellow box contains the text.

Make the 3Es your way of life.

Being physically active is critical for one's health and well-being. It can help add years to your life (and, some would say, life to your years). This pandemic has indeed created more challenges for us when it comes to exercising (e.g., keeping safe distance, wearing a mask). It is now much easier to lounge at home rather than maintaining an active lifestyle. With these 3Es, it is our hope that they will help to kickstart your journey of excellence and healthier living again.

The Musings of a Former National Sprinter

*An Interview with Calvin Kang
Compiled by : Andrea Ong and Nicole Yeo*



1. What inspired you to get into your sport and what continues to motivate you?

CK: I actually got into track and field really early. I started running at the age of 7. That was my first competition - an inter-school competition. I first got the inspiration to join track-and-field when I was 5. I was playing block catching with my cousins and friends and they noticed I had quicker legs. I could always be quick to catch as the catcher and that helped me realise that I loved to be outdoors and express myself through running. Subsequently, I competed at national school games in Primary School, got better, and went to Sports School. From there, I honed my skills and realised that this was something I really wanted to do and decided to continue. I think as a kid, the reward-to-effort ratio was really high, so that also pushed me further. I'm so thankful that from then on, I actually managed to become the best in my age group, represented Singapore, and continue to hold the national 100m junior record, as well as stay one of the top few sprinters in Singapore since the start of track-and-field in the country.

I am someone who is driven by passion. Whatever I am passionate about I will pursue it, find out details about it, and study it. For example, in track-and-field I would study the mechanics of running and what competition preparation is, and I'll prepare myself mentally. I'll set myself goals and guidelines I want to follow, and emulate people who have gone before me. Idols are important, and in Singapore, I look up to Mr. C Kunalan, who, in the 70s, was the sprint legend of South-East Asia. He's such a humble guy, and someone I really enjoy talking to. Of course my international idol is Usain Bolt, the world's fastest man, and I had the privilege to run alongside him in the same relay race in the 2014 Commonwealth Games.



2. What is your favourite / most challenging experience from your journey so far?

CK: My favourite experience would definitely be the 2008 Beijing Olympics because that is the pinnacle of sports, the culmination of all the accolades that you ever want - to represent your country, the highest level of sports where world-class athletes, from all countries and all walks of life, come together to perform.

The most challenging experience would be preparing for the competitions leading up to that, because there was a lot of pressure from the media and a lot of expectations from the public, friends, and even family. But I guess I really do enjoy the sport to the point that I wanted to prove myself wrong, and there wasn't any limit that I set on myself. The greatest challenge was really to better myself while remaining injury-free. As a kid growing up I had a lot of injuries, but that's also because I was pushing my body past its limit many times.

Looking back, the challenges were more about being patient with growth, being patient to see the long-term results rather than the short-term gains. You might do well in one competition, not so well in the next one, yet exceptionally well in the following one. It's a lot about pacing myself mentally for competitions ahead.



3. You have been endearingly referred to as the "Milo-boy" by many. Being in the public eye in this way, have you ever felt particularly pressured?


CK: This is interesting, because I actually had a few other sponsors that were with me for a long period of time. Of course Milo was one of my first few sponsors that got me a shot of fame, but I was also with 100 Plus, Adidas, Puma, and Casio. Being coined the "Milo-boy" and being the face on the Milo tin did help me get some interest from other people. Some people do recognise me or look up to me, and that helped me set a standard: that I am given this exposure not just because of connections or maybe I look okay on the ads, but the performance helped me to seal that standard. I think that is why people also look up to me because they think: "He's a good athlete and is someone who has performed and done it time and time again".

The pressure didn't come from always wanting to be appearing in the news, but the pressure maybe culminated from just wanting to perform my best, while knowing that the rest will be added. In Singapore, there's this phrase: We are amateur athletes competing in the professional world. Only some sports, for example, football, basketball, badminton, table tennis, you can see some full-time athletes. But in track-and-field it's really hard to do it full-time, so that was the challenge and standard that we faced while competing in the Asian, South-East Asian and World stage.

4. What mental health support systems were/are available for you to tap on in Singapore (e.g., consulting with sport psychologists)?

CK: When I was in the Sports School, I was privileged to have my first experience of Sport Psychology. It really helped me to understand the world of competition, preparing and priming myself for competition more intentionally. Last time as a kid, I was just like "okay I'm just gonna train and win a medal". That's all, that was my goal. I don't prepare myself mentally, I just go there, listen to the starter pistol, and just run as quickly as possible. But one of my sport psychologists, I still remember her name (Emily Ortega) and she was really helpful. Each of us had an individual session where she will ask us questions like "What are the building blocks of your life?", "What motivates you?", and "What are some of your fears?". She helped to package our responses such that it mostly focused on our strengths and on the things we could control. From then on, I had my own motivation and stimulus. I knew I could have psychologists helping me, but at the end of the day, I really needed to believe in myself and believe in the things I am doing.

Going into the professional scene, I also had the opportunity to meet with different sportsmen from different sports. That also helped me, because just being in your own sport, you can be blindsided by a lot of things, like how do you prepare for competition, how do you psych yourself up? I had friends in other sports that also shared with me their struggles and helped me through the process of finding myself, or finding my goals and drivers.



Those mental health supports were important, but I think most important was my family. They not only provided me with the mental, emotional, financial support, they were just there for me. A lot of the competitions that I went to, they were with me. A lot of times I just felt so down when I woke up to go to training. They would actually motivate me to go, to work towards my goals, buy sports drinks for me to always make sure I'm in the pink of health. The moral support from family, friends and loved ones was the most important.

5. What are your hopes for the sporting scene in Singapore?

CK: I'm thankful to be able to see the process of growth in the sporting scene in Singapore from the early days. The whole sporting environment started with creating a lot of infrastructure and coming up with different programs for the public to join sports and lead active lifestyles. Subsequently, competitive sports started gaining popularity and interest and world-class facilities for sports athletes were built. All those are great milestones for Singapore.

More importantly, introducing the whole elite sport system through Sport Singapore and Singapore Sports Institute really helped combine all the efforts together. The mandate of winning a medal at the Olympics was finally realised by Joseph Schooling winning the Gold medal in swimming. I think that was a success story and a lot of us have been inspired by it.

Different sports are integrated more closely with one another over the years. In the past it used to just be 'my sport, myself and I', but now it's 'my country, my team, and us'. That's a tagline we can use moving forward, and I'm looking forward to seeing more sporting champions and valiant individuals stepping up to be sporting heroes in their day-to-day lives in the heartlands. Sports is definitely a driver and mover of positivity and good change, and that can be something that we can always look forward to.

About Calvin Kang

As an Olympic athlete, I have pushed myself constantly beyond the physical, emotional and mental boundaries to establish myself as one of the youngest athlete to have represented Singapore at the major games (Olympics, Commonwealth, Asian, SEA Games) by the age of 21. My passion for success is innate and I have developed and executed efficiently in my training methodology and in my career track records.

With an entrepreneur spirit, I have also worked to create concepts and injected resourcefulness in business development, content partnership and sponsorship to drive a sustainable system.



Pain in Professional Ballet

Charmaine Wah

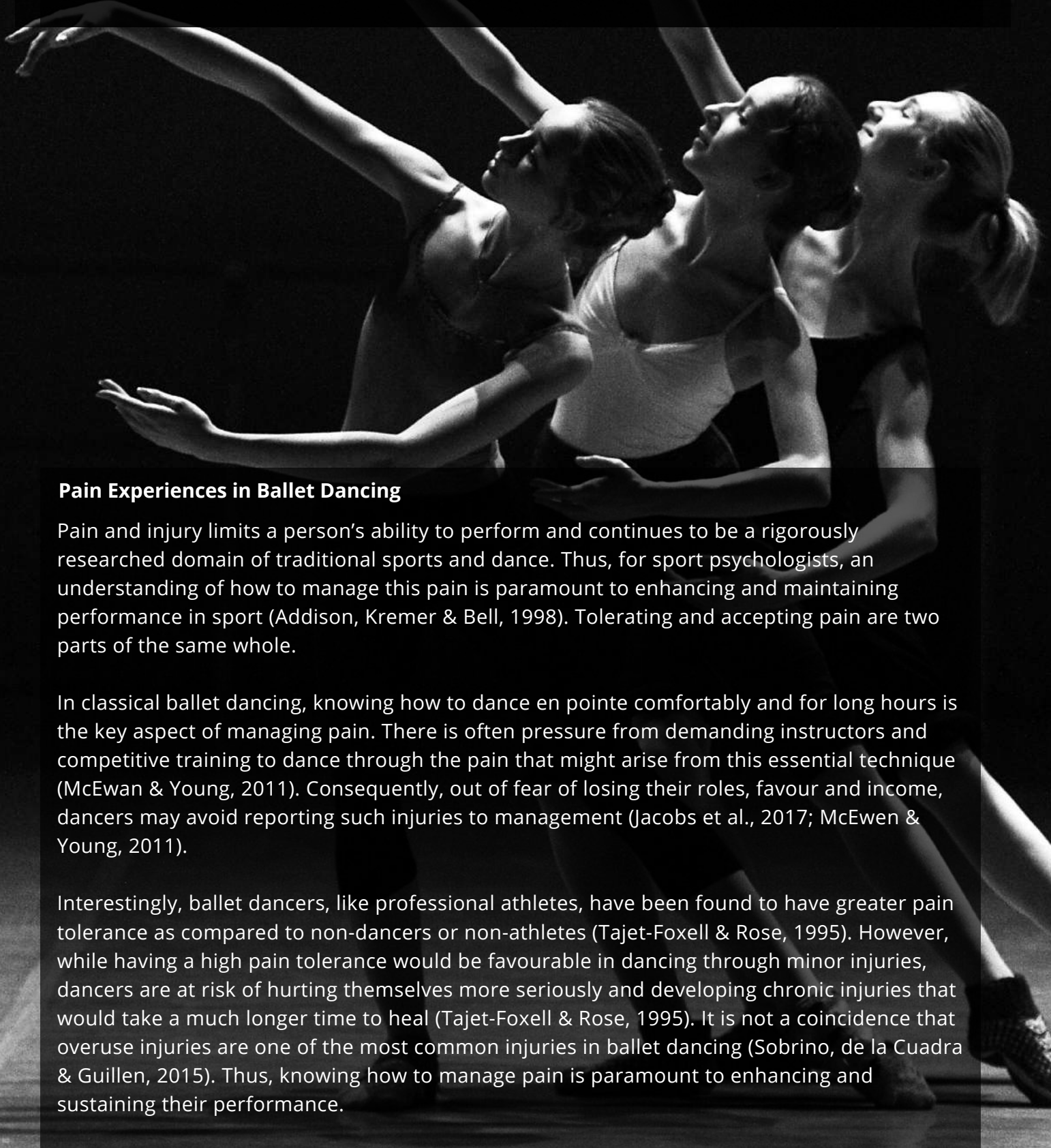
"When you leave class today, I want you to be able to say not, 'Thank God I was my best', but, 'Thank God I tried my best.' Very few dancers choose their retirement date. Either the pain gets too great or an accident happens... You won't be your best every class, but you try your best so you walk out of here knowing, 'If this was my last class, I can live with myself.'"

- A classical ballet instructor's advice to her students in Kveton-Bohnert (2017)

I recall a tongue-in-cheek warning I read in a children's storybook, "Don't look at a ballerina's feet!" While in reality, there are no unsightly ballet dancers' feet to be wary of, the sentiment comes from how classical ballerinas dance in silky but unforgiving pointe shoes. Dancing on their toes creates the artform's signature light and seemingly effortless style. Over the years, this exclusive artform has evolved, along with many others in the performing arts scene, to become more accessible to the masses and recognised for its rigour and discipline, beyond its aesthetic qualities. Having taken a beginner's ballet class as a physically inflexible and awkward adult, I was made acutely aware of the tough training ahead of me from Lesson One. Although I left the programme mostly unscathed, my experience was nowhere close to the life and work of a professional ballerina.

In recent years, there has been growing interest amongst sport psychologists in studying the psychology of pain in dance, including ballet. While the age-old debate about whether dance is a sport has not received a formal consensus, sports science researchers and dance experts have recognised and agreed that dancers are both artists and athletes (Addison, Kremer & Bell, 1998; Jacobs et al., 2017; Ojofeitimi, Bronner & Woo, 2012; Guarino, 2015; Dance Consortium, n.d.). Dancers are also seen and treated as athletes by the sports medicine and sport psychology communities (i.e., Noh, Morris & Andersen, 2007; Khan, et al., 1995).

Professional ballet dancing is of particular interest in the study of pain due to its high prevalence of injury, especially chronic or overuse injuries (Encarnacion et al., 2000; Bowling, 1989; Sobrino, de la Cuadra & Guillen, 2015). Aspiring ballerinas go through strict and very technical training from a tender age. What makes ballet unique from other dances and sports is the consistent and distinct use of "turnout", and this is also the leading cause of overuse injuries in their field (Khan, et al., 1995; Negus, Hopper & Briffa, 2005). Like athletes, ballet dancers compete for coveted positions in professional dance companies and also seek out certain roles for recognition and awards, thereby creating similar risk-taking cultures (Guarino, 2015; McEwan & Young, 2011). How similar is pain in ballet dancing to traditional forms of sport? And how might sport psychologists help ballerinas?



Pain Experiences in Ballet Dancing

Pain and injury limits a person's ability to perform and continues to be a rigorously researched domain of traditional sports and dance. Thus, for sport psychologists, an understanding of how to manage this pain is paramount to enhancing and maintaining performance in sport (Addison, Kremer & Bell, 1998). Tolerating and accepting pain are two parts of the same whole.

In classical ballet dancing, knowing how to dance en pointe comfortably and for long hours is the key aspect of managing pain. There is often pressure from demanding instructors and competitive training to dance through the pain that might arise from this essential technique (McEwan & Young, 2011). Consequently, out of fear of losing their roles, favour and income, dancers may avoid reporting such injuries to management (Jacobs et al., 2017; McEwan & Young, 2011).

Interestingly, ballet dancers, like professional athletes, have been found to have greater pain tolerance as compared to non-dancers or non-athletes (Tajet-Foxell & Rose, 1995). However, while having a high pain tolerance would be favourable in dancing through minor injuries, dancers are at risk of hurting themselves more seriously and developing chronic injuries that would take a much longer time to heal (Tajet-Foxell & Rose, 1995). It is not a coincidence that overuse injuries are one of the most common injuries in ballet dancing (Sobrino, de la Cuadra & Guillen, 2015). Thus, knowing how to manage pain is paramount to enhancing and sustaining their performance.

The Show Must Go On

Despite the expectation to dance through pain, one way in which ballet dancers are able to deal with it is through the use of appropriate coping strategies. Ballet dancers who recognise pain that might be threatening tend to adopt both avoidance and catastrophizing techniques (Anderson & Hanrahan, 2008). Avoidance strategies include avoiding pain-producing responses and being careful not to make any pain worse (Meyers, Bourgeois, Stewart & LeUnes, 1992). In this way, dancers can protect an injury from further damage. Meanwhile, catastrophizing refers to dwelling on the pain when injured and finding the pain experience unbearable or overwhelming (Meyers, et al., 1992). Dancers might first catastrophize, and subsequently adopt avoidance strategies, since any pain perceived as threatening could potentially lead to loss of technique, or the loss of a role or position in a company – or worse still, early retirement (Tajet-Foxell & Rose, 1995, Anderson & Hanrahan, 2008).

At the same time, another question sport psychologists are interested in is whether ballet dancers of varying skill levels cope with, and experience, pain differently. Studies have found no overall significant differences between coping styles between novice dancers and highly-skilled professional dancers (Encarnacion et al., 2000; Anderson & Hanrahan, 2008). However, dancers within their respective skill levels presented a general trend in coping styles (Encarnacion et al., 2000).

On one hand, novice performers tended to adopt more direct forms of coping, such as ignoring pain and “toughing it out”. They generally also used more cognitive strategies, such as playing mental games to keep their mind off the pain or telling themselves that it does not hurt. On the other hand, professional dancers tend to be hyposensitive to pain stimuli. For example, they seldom noticed minor injuries and had limited trouble with muscle strains.

This trend might be due to how seasoned professional dancers have become more prepared and used to facing pain during training and performances (Encarnacion et al., 2000).

Differences also arise when comparing professional ballet dancers’ coping styles with athletes of other types of sport. Encarnacion and colleagues (2000) noted that, overall, ballet dancers seem to display lower direct coping and cognitive skills, whilst displaying higher catastrophizing responses. When compared to rodeo athletes (Meyers, Bourgeois & LeUnes, 2001) and experienced rugby players (Thornton, Sheffield & Baird, 2020), this seems to hold true.



Therefore, just like how there are differences in pain coping styles between sports, ballet dancers – as both artists and athletes – do not seem to adopt the same coping strategies as other athletes. Moreover, there is also a high variability between dancers as well. Hence, understanding a dancer's pain management style would help sport psychologists determine how their individual styles affects their performance and adherence to medical advice (Meyers et al., 1992).



How Sport Psychologists Help Ballet Dancers

In managing pain, sport psychologists help their clients by supporting them through injury recovery or equipping them with new skills to prevent and deal with future injury. Dancers may also need help adhering to a recovery plan and dealing with losing a role or position in a company.


While research evaluating psychological interventions for ballet dancers in managing pain is bereft, there have been promising attempts of interventions that reduce the frequencies and durations of future injuries. Noh and colleagues (2007) explored the effectiveness of a broad-based coping skills training for female ballet dance students in South Korea. Informed by the psychosocial stress-injury model and interventions developed in sports, the training included learning positive imagery, positive self-talk strategies and how to cope with adversity for concentration and coachability. For example, when learning imagery skills, dancers relaxed before imagining various stressful situations, such as when they receive criticism from instructors – of which this is a large source of stress according to a previous study (Noh, Morris & Andersen, 2002, as cited in Noh et al., 2007). The study found strong evidence for the effectiveness of the intervention in preventing future injuries. Although the intervention was not meant to target pain per se, it is possible that the stress-coping and performance-enhancing skills learned through the programme could help to ease the pressures to dance through pain (McEwen & Young, 2011). As a result, this knowledge may empower dancers to adopt more adaptive and appropriate pain-coping styles.

On our local front, a case study on a couple of successful professional ballet and contemporary dancers reveal the challenges that dancers in Singapore might face (Chua, 2014). Ballet dancer, Jamal, brings up how the stigma of male ballet dancers was “rather insignificant” to him. However, he gets “extremely upset” when artists are viewed as idlers. He also recounts how he had to constantly deal with close friends and family members who disapproved of his choice to pursue ballet instead of his initial path of Law, as they called his decision “unbelievable” or “foolish”. Furthermore, he also had to struggle with financial hardships early in his career – but this only fired up his motivation to achieve recognition. Meanwhile, Zihao, a contemporary dancer, shared how he had to constantly remind his parents that dancing was not simply a hobby but a passion he pursued seriously. In a society that values practicality and utilitarianism, these challenges dancers face are not surprising.



Noh and colleagues (2007) also stressed the importance of taking into account the cultures that professional ballet dancers belong to. In another study (Noh et al., 2002, as cited in Noh et al., 2007), they found that Korean ballet dancers experienced high levels of stress due to their dance and performance environments. In South Korea’s hierarchical culture, dancers have no opportunity to respond to their dance directors’ criticism. Thus, when designing interventions, sport psychologists should keep cultural factors in mind and consider how it could affect how dancers cope with pain in its broader definition, beyond just the physical.

As far as pain goes, dancers are athletes too, and they can and should be studied and helped using sport psychology principles. Understanding pain in ballet reveals the athleticism and sportsmanship of the art necessary to attain the swan-like figures we admire and could only hope to achieve.

A photograph of a Judo match. One athlete in a white gi is on the ground, while another in a blue gi is performing a throw or hold over him. The background shows a blurred crowd of spectators behind a fence. A semi-transparent dark box is overlaid on the top right, containing white text.

It's not whether you
get knocked down;
it's whether you
get up.

Vince Lombardie

What is your 'Everest'?

*An Interview with Dr. Saravana
Compiled by: Nicole Yeo*




Adventurers who are into extreme sports are often regarded as 'sensation seekers' and 'adrenaline junkies'. Dr Saravana, however, offers a softer side and a holistic perspective towards his motivations and inspirations for scaling Mount Everest in 2017. Touching on his experiences, Dr Saravana shares what personal attributes enabled him to prepare and persevere through the journey and relays life lessons he learnt along the way.

What motivates you to partake in this extraordinary and dangerous hobby?

Dr. S: In life, there must be a certain level of craziness – to live life to its fullest potential. This expedition is similar to those that everyone else has – just maybe a little more extreme. I am deeply convicted to my goals of being actively engaged and aligned in body, mind, and spirit. This aspiration was always a deeply planted dream of mine and was reignited when I attended a talk in 2000 by the first Singapore expedition team and in 2009, when I got in touch with Miss Sim Yi Hui from the Singapore Women's Everest Team. This level of conviction and motivation is necessary in facing the grueling challenge of scaling Mount Everest.

“Aspire to inspire before I expire. But you have to learn how to inspire yourself first.”



The eventual outcome is not more important than the courageous act of trying. When I was younger, I was held back by overthinking my ambitious ideas. At a more mature life stage now, I believe that to live a full and authentic life means to take the step towards your goals, even if the first step is merely to overcome the inertia and open the doors. I myself took about 20-30 years to eventually reach my goal.

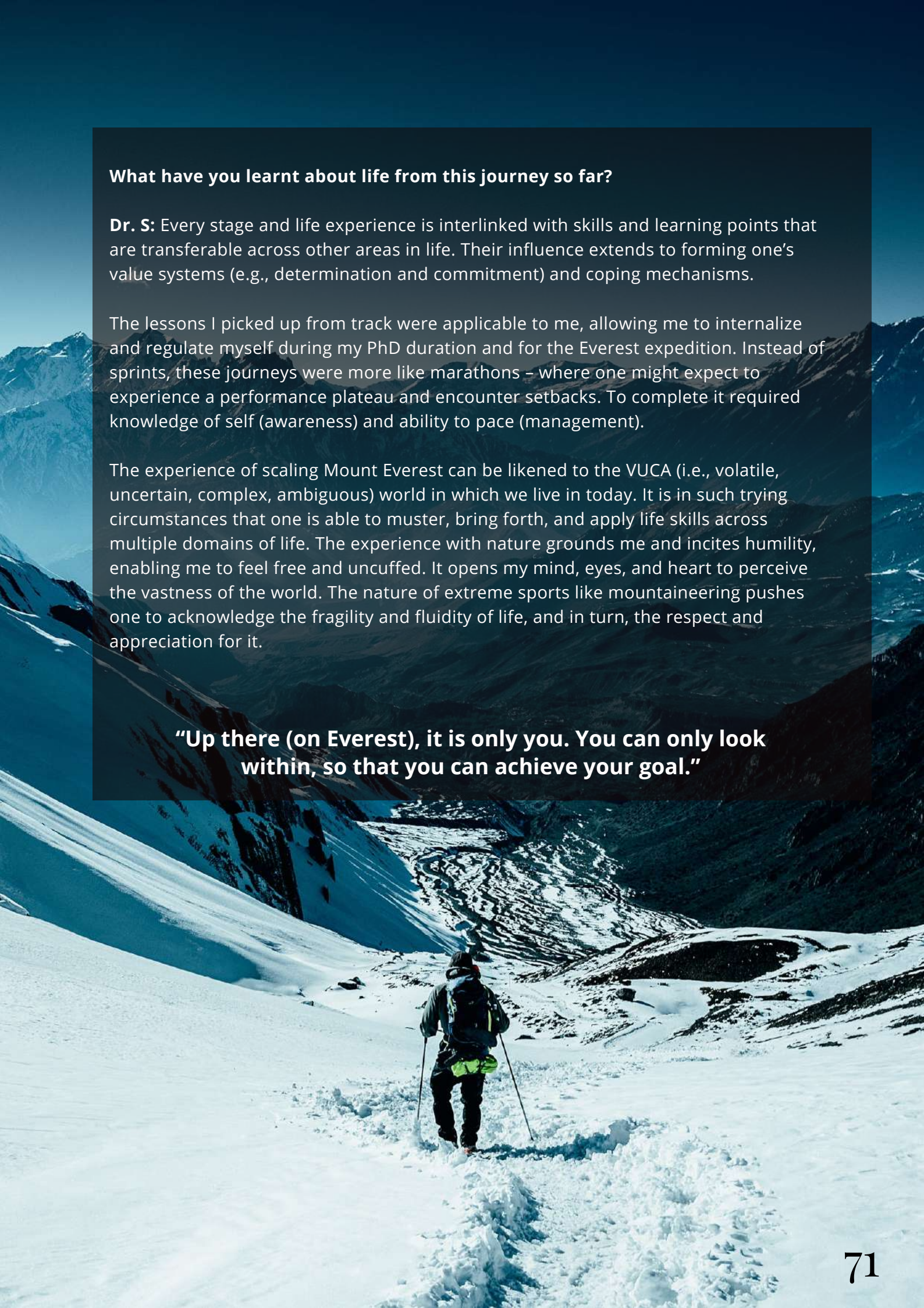
My greatest inspiration are my parents and their determination and commitment to providing for the family. This has given me immense strength to persevere.

With each expedition being extremely dynamic and coupled with great risk, how was your experience and how do you cope?

Dr. S: Even the most experienced mountaineers are not exempted from facing life threatening challenges and difficulties. There are definitely physiological (e.g., hallucination) and emotional challenges (e.g., loneliness) that one faces while scaling higher up the mountain. These are coupled with the fear of making a misstep or encountering physical and health concerns along the way. I experienced a build-up of liquid in my lungs due to the high altitude and sustained a fractured hand and frost-nipped fingers – eventually preventing me from completing the ascent.

Fear is a normal and natural experience which occurs in everyday living. It is not much different from facing uncertainties and dangers. My past experience as an athlete has provided me the skills and mindsets (e.g., determination theories, breathing techniques, self-talk) to cope effectively. These are ingredients used to enhance the experience of living on a holistic level. Triumphant over my fears is a liberating process and this same motivation and means to overcoming challenges and setbacks can be extrapolated to other areas of life. To counter the dynamicity, one has to ensure that he/she prepares adequately enough. Beyond the training and planning, one has to prepare the mind and being too.

**“Fear exists in life.
Yet, you cannot let fear be life.”**

A full-page background image showing a person in winter gear climbing a steep, snow-covered mountain slope. The climber is seen from behind, leaving a trail of footprints in the snow. The sky is clear and blue, and the mountain's ridges are visible in the distance.

What have you learnt about life from this journey so far?

Dr. S: Every stage and life experience is interlinked with skills and learning points that are transferable across other areas in life. Their influence extends to forming one's value systems (e.g., determination and commitment) and coping mechanisms.

The lessons I picked up from track were applicable to me, allowing me to internalize and regulate myself during my PhD duration and for the Everest expedition. Instead of sprints, these journeys were more like marathons – where one might expect to experience a performance plateau and encounter setbacks. To complete it required knowledge of self (awareness) and ability to pace (management).

The experience of scaling Mount Everest can be likened to the VUCA (i.e., volatile, uncertain, complex, ambiguous) world in which we live in today. It is in such trying circumstances that one is able to muster, bring forth, and apply life skills across multiple domains of life. The experience with nature grounds me and incites humility, enabling me to feel free and uncuffed. It opens my mind, eyes, and heart to perceive the vastness of the world. The nature of extreme sports like mountaineering pushes one to acknowledge the fragility and fluidity of life, and in turn, the respect and appreciation for it.

“Up there (on Everest), it is only you. You can only look within, so that you can achieve your goal.”

It might be intuitive to think that for sports such as trekking and mountaineering, that it would be largely an individual journey of determination and resilience. Do you think the team has a part to play and how much?

Dr. S: The team dynamics is important. Up there, you rely on one another as it could be a matter of life and death. The mental psyche of each teammate (e.g., when people are unhappy), affects the overall mood and individual condition. Up at the top, it becomes lonely and miserable. When you go in as a team, it adds on to the experience and makes it easier to recover, bounce off, reflect, and cheer each other on. Having uncoordinated teammates may also affect the morale and condition of the individuals. In trying times, one's composure and determination would be put to the test.

What would you say to individuals who are interested in trekking this same journey to Everest?

Dr. S: Nothing stops you, except you, from realizing your goals. Age, disabilities, and background should not be excuses. You are bigger than what you think, don't curtail yourself by the traps that you set up for yourself – i.e., assumptions and boundaries. Beyond those who share the same dreams as me for Everest, this advice extends to the wider audience too in other aspects of life.

The journey of working on your goals, or overcoming mountains in life, reveals the importance of knowing oneself, and is in itself, a self-discovery process. Similar to competitive athletes, no one trains to lose, yet one should be aware that winning is not all there is. There is much learning that happens along the way. We can all sit and drive the same car, but yet it drives differently. Each journey is personal. Understand your body and how it works with the environment or circumstance.

"We all encounter mountains in life, be it in your insecurity or phobia, these are your own Everest to overcome."

About Dr. Saravana Arjunan

Dr. Saravana has a history in track and field, as well as over 20 years of experience trekking in various countries like Nepal, India and the French Alps. However, he recounts that his deep-seated ambition to scale Everest was within him ever since he was a young boy after watching a documentary on Edmund Hillary and Tenzing Norgay– a sort of young boy's dream.



Exercise Addiction

Gan Kai Qi

The word "addiction" is commonly associated with vices such as drugs or gambling, and few would actually attach it to an activity such as exercise. Unfortunately, such a phenomenon does exist, and there has been a growing awareness of the debilitating effects of exercise addiction in recent years (Hausenblas & Downs, 2002; Szabo, Griffiths, Marcos, Mervó, & Demetrovics, 2015).

What exactly constitutes exercise addiction, and what's so bad about exercising?

While there is no universally agreed upon definition of exercise addiction either within the DSM-5 or the ICD-11 to date, exercise addiction is generally conceptualized as a behavioural addiction. Individuals with exercise addiction engage in excessive exercise, which is characterised by six core components of addiction (Berczik et al., 2012; Landolfi, 2013).

1. Salience

Exercise has slowly crept up your list of priorities. It has become one of the most important things in your life, being constantly on your mind, and affecting both your feelings and behaviours.

2. Mood modification

Whenever you exercise, you always feel better afterwards. Especially when you feel angry or down, a workout session has become your go-to activity to improve your mood.

3. Tolerance

However, as time passes, you start to realise that you need to engage in more and more exercise for longer durations in order for exercise to work in elevating your mood. Half a year ago, you only required 30 minutes of exercise for you to feel better, but now, you are engaging in over 2 hours of exercise before you start feeling just the tiniest bit better.

4. Withdrawal symptoms

It is now neither just a matter of how long you exercised, nor the intensity of your workouts anymore. While you used to exercise as a way of coping with negative emotions in the past, now, the mere thought of not being able to exercise for just one day puts you in a foul mood.

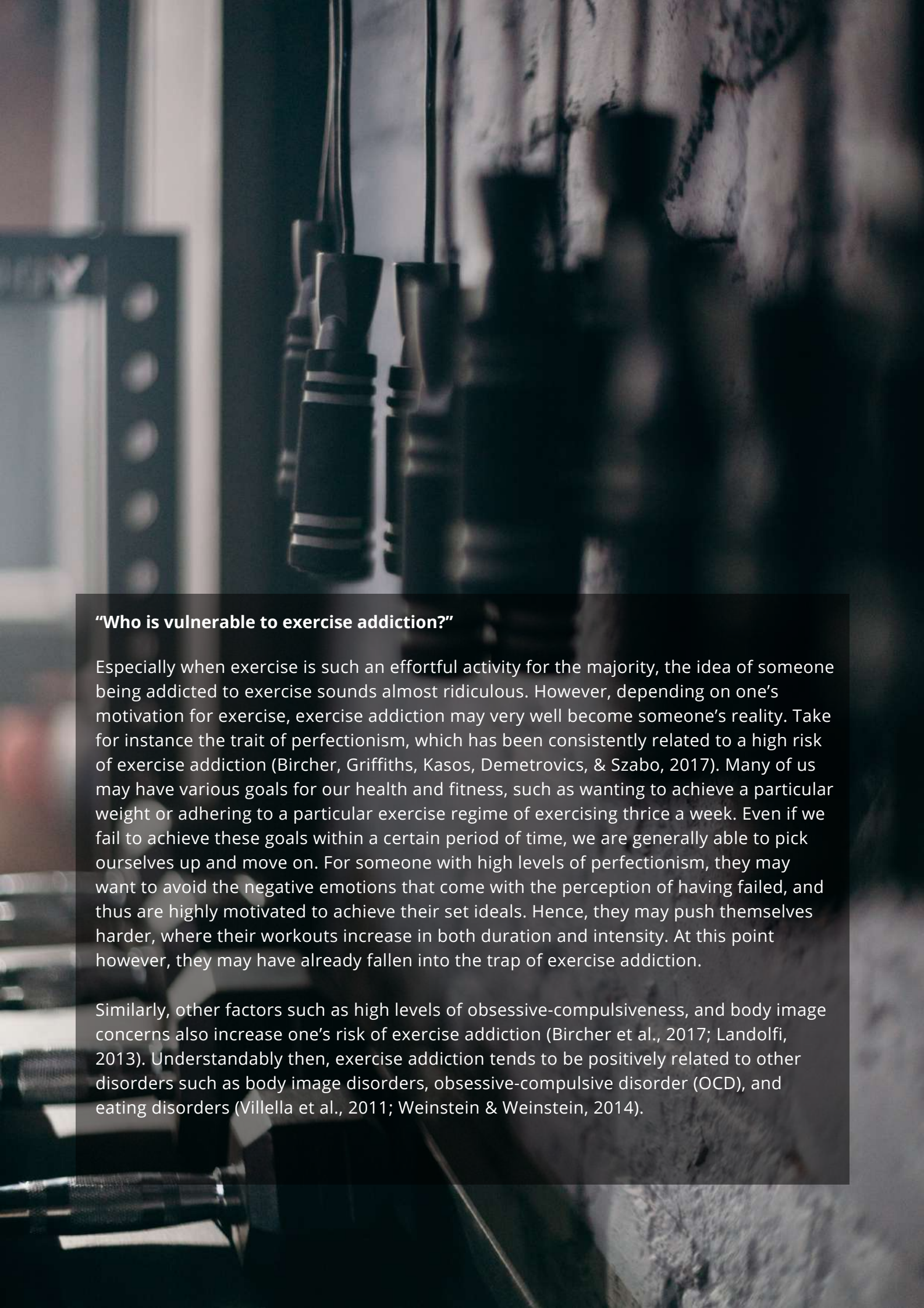
5. Personal conflict

A week ago, your colleagues asked you to join them for a fellow colleague's birthday lunch, but you declined their invitation so that you could go to the gym. Just yesterday, your family also asked you to stop going to the gym just for one day to join them for dinner. When you refused, you then got into a fight with them before leaving for the gym in a fit of anger. Honestly, why can't they seem to understand the importance of exercise for you? At least exercise would be able to calm you down and improve your mood.

6. Relapse

When you finally realise that perhaps exercise was becoming a problem for you, you tried to cut down your exercise regime by 2 hours every day, intending to only work out once every 2 to 3 days. Unfortunately, that only lasted for two weeks before you caved in to the need to exercise, and went back to your old regime.

Exercise addiction involves both a dependence on and a compulsion to exercise. As a result, exercise intrudes into almost every sphere of one's life, be it work or school, or personal life. There are also other psychological and physical problems that occur with exercise addiction. As sufferers tend to continue exercising even when they are physically unable to, musculoskeletal injuries become common (Landolfi, 2013; Weinstein & Weinstein, 2014). The psychological effects of exercise withdrawal itself, such as increased irritability, are compounded with other issues. For example, even when the effect of exercise deprivation (where individuals tend to develop negative mood changes when deprived of exercise) was accounted for, individuals with a high risk of exercise addiction were found to be significantly more depressed and anxious when compared to others at a low risk of exercise addiction (E.g. Lichtenstein, Nielsen, Gudex, Hinze, & Jørgensen, 2018; Weinstein, Maayan, & Weinstein, 2015).



“Who is vulnerable to exercise addiction?”

Especially when exercise is such an effortful activity for the majority, the idea of someone being addicted to exercise sounds almost ridiculous. However, depending on one's motivation for exercise, exercise addiction may very well become someone's reality. Take for instance the trait of perfectionism, which has been consistently related to a high risk of exercise addiction (Bircher, Griffiths, Kasos, Demetrovics, & Szabo, 2017). Many of us may have various goals for our health and fitness, such as wanting to achieve a particular weight or adhering to a particular exercise regime of exercising thrice a week. Even if we fail to achieve these goals within a certain period of time, we are generally able to pick ourselves up and move on. For someone with high levels of perfectionism, they may want to avoid the negative emotions that come with the perception of having failed, and thus are highly motivated to achieve their set ideals. Hence, they may push themselves harder, where their workouts increase in both duration and intensity. At this point however, they may have already fallen into the trap of exercise addiction.

Similarly, other factors such as high levels of obsessive-compulsiveness, and body image concerns also increase one's risk of exercise addiction (Bircher et al., 2017; Landolfi, 2013). Understandably then, exercise addiction tends to be positively related to other disorders such as body image disorders, obsessive-compulsive disorder (OCD), and eating disorders (Villella et al., 2011; Weinstein & Weinstein, 2014).

“Eating disorders? Isn’t excessive exercise just a symptom of eating disorders then?”

Admittedly, exercise addiction and eating disorders are concepts that are closely intertwined. For someone who is highly motivated to lose weight to the extreme, it is quite likely that they may engage in eating habits that are characteristic of eating disorders (e.g., dieting, bingeing, and purging), as well as in drastic exercise behaviours that can be construed as exercise addiction. This is where it is important to have a clear understanding of whether such excessive exercise behaviours are the primary problem in a person’s life, or if it is a secondary problem that arises as a result of a need to accomplish other objectives.

We tend to think of exercise as a means to fulfil a goal of losing weight or keeping fit. When someone engages in excessive levels of exercise to fulfil such goals, this phenomenon has generally been classified by researchers as secondary exercise addiction (Berczik et al., 2012; Landolfi, 2013). Secondary exercise addiction thus commonly co-occurs with other dysfunctions, which are commonly eating disorders. In contrast, primary exercise addiction tends to occur when someone is motivated by enjoyment of exercise itself, especially since exercise does release endorphins which help to improve our mood.



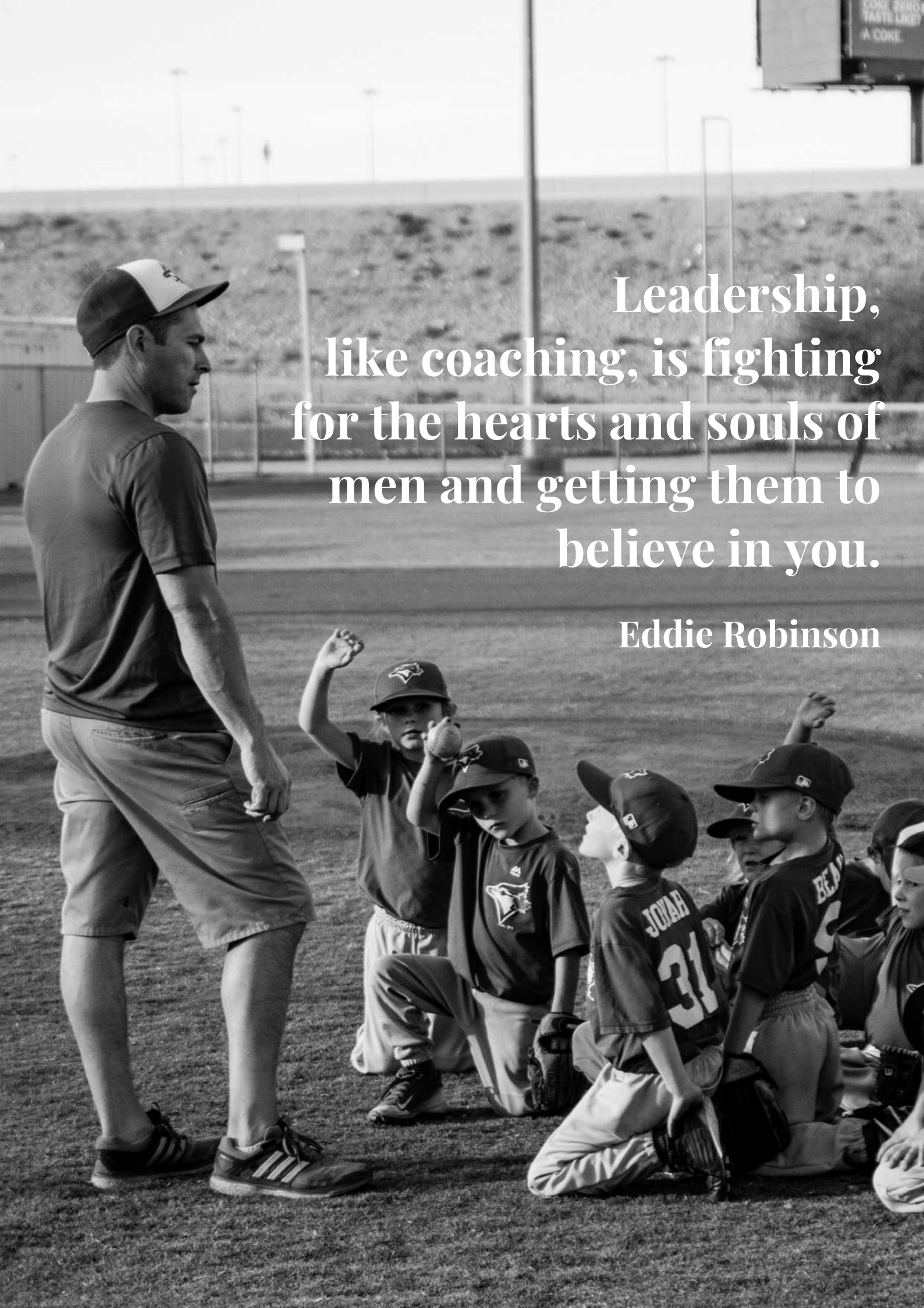
"That's...confusing. What can I do then?"

Exercise addiction definitely isn't as clear cut as drug addiction, especially since it is good to engage in some form of exercise for both our physical and mental health. Looking at exercise as a spectrum may help, where complete inactivity is on one end, and exercise addiction is on the other. In an ideal situation, one would want to be in the middle of the spectrum, engaging in enough exercise to keep fit while also not being adversely affected by exercise itself. At the same time however, the context of each of our lives may differ drastically, and setting hard, clear guidelines on what 'normal' exercise levels are (e.g., not exceeding 3 hours of exercise a day) does not make sense, and is not feasible. What may constitute as excessive exercise for a 50 year old female may be completely normal for a 20 year old female. What constitutes as a normal activity level for an athlete is unlikely to be normal for the average employee working in an office.

Therefore, in order to combat exercise addiction, awareness is key. Understand the circumstances of your situation, and keep a look out for possible signs that exercise has become a problem for you. Here are a list of potential signs that you should keep an eye out for:

1. Your workouts have constantly been increasing in both intensity and duration
2. You persist with exercising even when you are tired, sick, or physically injured
3. Your workouts are impacting your relationship with your friends and family
4. Missing even one scheduled workout makes you feel terrible and you beat yourself up over it

Establish clear guidelines for yourself when engaging in exercise, especially if you know that you tend to overdo things. By knowing when exercise starts to become a significant problem in our lives, we can then take steps to rectify it.



Leadership,
like coaching, is fighting
for the hearts and souls of
men and getting them to
believe in you.

Eddie Robinson



Uncovering Sport Psychology in Singapore

Compiled by: Nicole Yeo

Besides what we see on the field, track or stadium, rarely do spectators and fans get a peek into the psychology of athletes – the mental game which allows them to perform extraordinarily and accomplish amazing feats of athleticism. In our interest to uncover this, we interviewed three professionals in the field to share their valuable insights on achieving sporting excellence through sport psychology.



Hansen Bay serves as a coach developer for Sport Singapore and the International Paralympic Committee (IPC) teaching pedagogy and sports coaching psychology, educating coaches on the importance of building the coach-athlete relationship and its implications on the athlete's mental game. He also coaches the National Women's Goalball team, a Paralympic sport for persons with visual impairment). He specialized in sport and exercise psychology in university in 1999, understudied professional sport psychologists based in the United States, and completed his second degree in psychology in 2010. His belief is that psychological skills play a critical role in helping players cope both with challenges of competitive sport and with overcoming obstacles in their personal lives. This is what he applies in both his personal training in triathlons and the martial arts, and his professional work in coaching.



Edgar Tham was employed by the Singapore Government as its very first sport psychologist in 1995, where he worked at the Singapore Sports Council (now called Sport Singapore). Since then, he has been practising sport psychology in various capacities – as a team psychologist to support travelling teams at major games (e.g., Asian Games, Olympic Games); as a lecturer and curriculum developer at Republic Polytechnic (2005), PSB Academy (2010), and the Singapore University of Social Sciences (2017); and as a private practice practitioner delivering educational workshops, talks, and one-on-one consultations with sport and non-sport groups and individuals. He also enjoys writing and sharing science-backed strategies with people through his published books and social media (fb.com/mentaltoughnessresearchblog).



Sanjana Kiran was introduced to the world of sport psychology while pursuing her PhD under Dr. Elizabeth Nair at the National University of Singapore, and later, Dr. Bervyn Lee at Nanyang Technological University. She has serviced Team Singapore athletes through Singapore Sports School and Singapore Sports Institute in preparing them for Major Games. Her expertise lies in preparing high performers for Olympics and currently trains International Olympians in facilitating their best performance. She lectures at various institutes of higher education and imparts performance psychology skills to corporate leadership. In recent times she has also taken on the role of torch-bearer for the Athlete Psychological Safety Campaign and is an ambassador of Athlete & Coach Mental Wellness.

Sport psychology may not be a term that many are familiar with. In your own words, how would you describe it?

Hansen: It is not easy to describe sport psychology. The term often refers to both sport and exercise psychology, and it is important to distinguish between the two. Sport psychology is focused on performance enhancement for athletes, i.e., being able to perform in competitions where you have only one or limited opportunities to execute what you have trained for. Exercise psychology is more concerned with getting the general population involved in exercise and to derive the related health benefits.

There are psychologists who are not trained in sport psychology but are referred to as sport psychologists because they work with athletes. They may apply similar techniques and interventions but their focus is to help an athlete return to performing at an already established level, and not directly to enhance the athlete's performance during competition.

Edgar: Sport is about competition. Sport psychology is about applying psychological principles and strategies to enhance performance and overall enjoyment for the people who are involved in that industry, namely athletes, coaches, officials, and even the athlete's parents. It's about being able to cope and thrive under stress in and around sport competitions.

Sanjana: It is using your mind to facilitate your best performance. Most of us have all the mental skills that we need – sport psychology can help you unleash that mental potential. It is not so much about promising wins, but about aiding the athlete in achieving their best mental game.

There are many techniques that can be employed at different points of an athlete's journey to the podium that have their applications to everyday life as well.

For example, if one is going on a date, one may employ:

- Imagining how the date is going to pan out (Imagery and Visualization),
- Arranging for a timing and finding out how to get there (Goal Setting),
- Telling yourself "It's going to go great!" (Affirmation),
- Managing your performance throughout the date through emotional regulation and impression management.

How do you think sport psychology can influence an athlete's performance?

Hansen: Sport psychology will help the athlete develop the necessary knowledge, skills and abilities (KSAs) for performance more efficiently and effectively. It would also help the athlete to better recall and reproduce these KSAs under competitive pressure.

It is good practice to adopt a longer-term perspective when coaching psychological skills, specifically, given the applicability of these skills to cope with challenges outside of their sporting career such as their studies, career and even in their relationships. There are two related benefits to this – these skills are reinforced in different contexts, and when athletes cope better with the other roles that they play outside of sport, they will have fewer distractions from training and performance.

In addition, there are individual to team implications. According to Phil Jackson, the former coach of the Chicago Bulls, “The strength of the team is each individual member. The strength of each member is the team.” However, it is not a matter of simply putting together individual players who are technically strong and mentally tough. Team development is another aspect of sport psychology necessary to help these individuals function effectively as a team.

Of course, genetics and innate qualities play a critical part in influencing an athlete's performance, but we have very limited or no control over these aspects. It is also useful to approach the development and performance of an athlete from a biopsychosocial perspective (especially for policy makers). The Athletic Talent Development Environment (Henriksen et al., 2010) provides us with a model to design an optimal sporting environment.

Edgar: Sport psychology was developed to primarily support the people who needed to excel and perform under competitive stress. Its influence, from what I'm seeing since 1995, has been growing in scope and importance.

Sport psychology aims to enable performers (both the athletes and others involved, e.g., coaches, officials) to excel and enjoy in their endeavors. Thus, both short- and long-term implications, to me, are the same.

Individual performances collectively contribute to an overall team's performance. As such, an individual needs to be able to effectively give and receive social support to and from one another for the team to truly perform as one. Metaphorically, “one plus one” in sport psychology is not two but eleven. Both individual and team objectives need to be dealt with. Individuals need to be clear about their roles and give their best efforts while synergizing their individual contributions towards the team's overall performance objectives. In parallel terms, this is not very different from corporate executives and the teams they are a part of in the workplace.

An athlete is more likely to feel overwhelmed in potentially stressful performance situations when they have a personality that might worsen the stress response (such as trait anxiety), a history of stressors (such as tactical mistakes they have made in the past), and/or insufficient psychological resources to cope with the competitive situation.

Sanjana: As much physical strength (stamina, power, and technical prowess) contributes to sporting excellence as mental strength. A sport psychologist works in tandem by enabling athletes to reaching their full potential. It is 50/50.

Training and competing entails being physically taxed and puts a huge strain on one's mental energy. However, this could be made less traumatic through effective management of self and adaptive regulation. It is these moments that allow an athlete to break records.

The exploration of self-concept is of great importance, owing to the fact that these individuals are human first. They live extraordinary lives yet they have to acknowledge their human side, beyond their sporting identity. This is especially important when one reaches points of transition like moving into the elite level, or retiring due to injury. They have to display self-awareness and compassion, which would enable them to better enjoy the ride and reduce the risk of mental illness and burnout. Their commitment to the sport should be one out of enjoyment rather than entrapment.

Besides needing to balance passion with commitment, they are faced with formidable pressure and setbacks amidst high expectations from themselves and others. This effect could be enhanced for newer generations of athletes against the background of technology-related mental health issues and increasingly being in the public eye.

Insufficient understanding of mental health causes and a lack of openness to discussing this topic provides fertile grounds for significant detriments – which ultimately affects performance. A sport psychologist's role is often to provide support, and facilitate the process of managing their emotional and mental state (beyond the performance aspect).

A sport psychologist could also work on the coach-coachee dynamic in order to enhance the relationship. This could even entail addressing the intense pressure that coaches may experience to deliver expectations, while not having much control over the athlete's immediate performance.

Another aspect of a sport psychologist's role is also to work on the mental resilience of the athletes – which consists of regulating emotions, honing skills to remain focused, understanding their source of motivation and building confidence. A lot of the time, an athlete's own stress is what they are competing with. There are two main goals that athletes should be guided by:

- To have an outcome goal (e.g., podium finish); but also
- To outshine yourself first



What does it mean to be a successful athlete? And are there any features of sport psychology that many enhance this?

Hansen: I would look beyond just the athlete's performance in sport to define his or her success. To me, a successful athlete is one who balances sport with other areas of their lives, specifically, someone who is able to leave sport on the playing field and not lose touch with other roles that they play in their life.

Psychology coaching can help the athlete separate self-esteem from performance by helping the athlete understand that he is a person first and athlete second. This helps athletes appreciate that their own personal qualities do not change no matter how badly they perform at their sport. Not only would this help them enjoy the process and perform better, it has positive implications on their mental health especially after they retire from competitive sports.

Edgar: The typical view of a successful athlete is often that of positive outcomes or results (e.g., winning a medal). But, in my view, a successful athlete is one who can perform up to their sporting potential (e.g., personal bests, progressive improvement over time) whilst enjoying their sporting participation.

Sanjana: A successful athlete to me is someone:

- who feels they couldn't have given more to what was within their control (keeping in mind that a sport performance involves plenty of uncontrollable factors).
- can use the lessons learnt through sporting experiences of training and competitions to enrich their lives.
- who have not abused their passion with obsession, but have enjoyed the sporting ride.

The sport psychologist/s can provide:

- A robust mental resilience training program that empowers the athlete with key mental skills to regulate emotions, sustain focus, experience high self-efficacy, stay internally motivated, handle failures and success, and focus on comparing their performance with their own personal best.
- Holistic grooming of athletes that involves encouraging the athlete's responsibility towards their mental health through self-awareness training and guiding them on recognizing signs and symptoms such that they can raise the 'red flag' for help.
- Creating awareness and educating the sports ecosystem on the negative impact of training and competition stress on athlete mental health.
- Creating awareness and educating the sports ecosystem on their role and responsibilities in keeping athletes psychologically safe.
- Working with other professionals such as sport scientists, clinical psychologists, psychiatrists, etc.

How much is sport psychology being practised in the local context?

Hansen: Not enough, especially among our coaches. There is a lack of awareness about role-modelling, process-based feedback, and how to integrate the teaching of psychological skills with technical practice.

Edgar: Most highly competitive sport teams and groups engage sport psychology specialists or apply the sport psychological principles to help both individual and team performances.

Currently, it is practised in three broad areas or places: Firstly, the school Physical Education (PE) programmes and Co-Curricular Activities (CCA) sports infuse sport psychology principles in their curriculum, from primary through to university levels. PE teachers are well-trained in the application of sport psychology, and apply the discipline in their daily work. Secondly, the National Youth Sports Institute (for competitive youths) and the Singapore Sport Institute (for elite athletes and teams) are two national sport organizations that employ several full-time sport psychologists to conduct research, teach, and consult with teams. Finally, there is a small group of private practitioners, like myself and my team, who work with private clients and teams.

Sanjana: The field of sport psychology has developed by leaps and bounds over the years, with SportSG and other institutions doing a great job. However, there is still room for improvement. Like other psychology practices, it is important to have more guidelines and supervision on how sport psychology can be conducted.

Athletes are much more aware of what sport psychology is and what it can do. Young people are also increasingly open-minded and willing to seeking help, which reduces the nervousness and stigma around the topic. They are keeping their eyes and ears open, and are often willing to seek help for others as well.



What do you think of the future of sports in Singapore and role of sport psychology?

Hansen: This is somewhat subjective but I do think that, especially at the elite level, sport psychologists ought to be spending more time coaching coaches rather than athletes, and counselling and clinical psychologists should be engaged to work with athletes. Athletes need to have professionals to confide in and talk to besides their coach. Evidence also suggests that elite level training and competition increases athletes' vulnerability to mental illness (Gulliver et al., 2012).

Sport psychologists can help coaches play a bigger role in the teaching of sport psychology since they have the most contact time with athletes, have more opportunities to contextualize the psychological skills during practice, and because the coach-athlete relationship has big implications on the athlete's mental game.

In a nutshell, sport psychologists and coaches will focus on performance enhancement while the other psychologists will focus on performance restoration.

Edgar: I think that sport in Singapore has a bright future due to the recognition of its important role in both nation building and the need to be a fit and healthy nation. Also, there are people with a passion for both sport participation and the application of psychology in sport. I have many undergraduates, both local and foreign, who write to me seeking internship and career opportunities. That number has been growing steadily year by year – this year (2020) alone, I have had about a dozen or more individual requests. I think there is growing interest overall, and people now recognize that sport psychology can be an exciting career option for them!

Finally, I also feel that the principles of sport psychology aren't just for sport! They can be adapted and contextualised to most performance domains where people have to perform under pressure and stress. A new discipline is also emerging that has its roots in sport psychology. It's called performance psychology.

Sanjana: Though there has been increasing interest in competitive sports in recent years owing much to sporting excellence of local athletes, wellness takes a more central focus than competitive sports in the larger community. There is a bright future for sport psychology, with more and more people and institutions in the athlete ecosystem thinking about and being involved in it.

An ironic part of mental health issues in connection with sports and exercise is that exercise is often prescribed to aid individuals going through mental health challenges. Following this train of thought, high performing athletes should have the least issue with mental health. However, the troubling contrast of reality – of widespread mental health concerns in the athlete community – reveals the intensity of mental energy that arises from the nature of this profession. There has to be greater awareness and openness about this to enable better support and assistance.

(Re-)Presenting Singapore's Para-athletes

Compiled by: Andrea Ong

This interview article features Singaporean para-athletes, Nur Syahidah Alim and Claire Toh.

1. What inspired you to get into your sport and what continues to motivate you?

Syahidah: I first knew about archery when I was 18 years old. At that time, there was a Disability Expo that was organised by the Singapore Disability Sport Council (SDSC). The expo showcased all the para-sports that were available in Singapore. I remembered trying all the sports, but archery seemed to resonate with me the most. When I tried it for the first time, I saw all my arrows at the center of the target. Seeing this gave me a sense of achievement. Learning that archery was considered a masculine sport then because it requires strength to pull the bow also made it feel unique to me. What motivates me to continue archery till today is the enjoyment from the process. Archery has made me a better person physically and mentally. It has also taught me how to manage my expectations and emotions, as well as keep my body healthy.

Claire: It was 2 years after my injury and I thought, "Why not try something?". My biggest motivations are my passion for the game, wanting to be better, and knowing that I still have a long way to go. I have this habit of rarely following through with things and I told myself that I want to see how far I can go if, for once in my life, I give my all and stop giving up halfway.



2. What is your favourite or most challenging experience from your journey so far?

Syahidah: My favourite experience would probably be achieving major milestones for Singapore, with the help of my coach, Qing Liang, and the sport scientists from Singapore Sport Institute (SSI). I hope that I can continue to represent Singapore and do extraordinary feats to touch and inspire the hearts of people to pursue their dreams and passions.

Claire: My favourite memory would be playing against my opponent who is a Paralympian. When I debuted, she beat me 3-1, and the second time I faced her two years later, I won the game at 3-1. I went into the game telling myself that as long as I got to apply what I had trained hard for, that would be good enough. If I were to win two sets, that itself would already have been an achievement so I was shocked when I had won.

3. In your sporting journey, have you struggled with poor mental health? If so, what helped you overcome the challenges you faced?

Syahidah: As a national athlete, we are guilty of having high expectations to achieve podium-finish during competitions. Hence, it is common for me to experience anxiety and stress during my training and competitions. When I began my sporting journey, I would oftentimes feel frustrated at myself when I make shooting mistakes during training and competitions, and I wasn't able to recover my shooting performance for the day quickly. My coach helped me to manage my expectations. He reminded me that my primary role as an athlete is to focus on my shooting process and form, and to enjoy the journey. I trust my coach and the SSI team to ensure that I reach my goals. With the help of my sport psychologist, I've also adopted strategies (e.g., breathing techniques, pre-/during/post-routines, visualization) to help me keep calm and focused during my shoot.

Claire: I think I've struggled with poor mental health every now and then throughout my life. Training grounds me, and it makes me happy just to be around my teammates, my coaches and table tennis.

4. What mental health support systems are available for you to tap on in Singapore?

Syahidah: I work closely with my coach and sport psychologist at SSI to deal with anxiety and stress. My sport psychologist also helps with goal setting to support me in having effective time management and expectations, in and out of the sport. For example, I enrolled in baking classes to keep me productive during my off-days. I also participated in the mentorship programme with TeamSG athletes to mentor students with vulnerable backgrounds. Mentoring is rewarding – being able to help my mentee deal with their issues reminds me to be appreciative of what we have in life and that life is too short to feel anxious and stressed.

Claire: There are sport psychologists available for appointment. During major games, a sport psychologist would be assigned to each sport and be available to counsel us or teach us ways to regulate our emotions before, during, and after the game.

5. What's the Singapore Paralympic scene looking like now, and where would you like to see it heading towards?

Syahidah: I feel that the Singapore Paralympic scene is growing as more persons of disabilities are participating in para-sports. At the same time, more training and local competitions are gearing towards inclusiveness (e.g., Get Active! Singapore). However, there is still a need for improvement within the sporting ecosystem, if we were to achieve the pinnacle of sport inclusiveness in Singapore. For example, more could be done in providing opportunities for para-athletes to compete in abled major games, more media coverage in Singapore on Paralympic games, and a scheme that awards para-athletes in major games equally. I believe that we will be able to achieve sport inclusiveness in high-performance sports one day when more of our para-athletes attain great milestones in their sports at an international level.

Claire: Singapore's Paralympic scene is still sparse as there just aren't enough people participating in sports, and only a few Paralympians around. However, the overall para sports team has been picking up slowly. I wish for the day where our sports body would not be differentiated into "Normal" and "Para" sports. If I'm not mistaken, there are quite a number of countries that don't differentiate between abled body and para sports, whereas in Singapore, there is the Singapore National Olympic council and Singapore National Paralympic council. I wish that para-athletes would also be rewarded equally too, as the disparity between the prize monies is huge.



6. In your opinion, what can Singaporeans do to adopt a more inclusive attitude, not just in sport, but in society at large?

Syahidah: To achieve an inclusive Singapore, society should continue to understand, respect, welcome, celebrate and honour diversity. Parents and teachers educating the young should be caring and open to diversity by participating in charity work and talks (e.g. the human library). Organisations can play a part by giving opportunities to people with disabilities to lead work projects, such as those related to organising diversity day within the company.

Claire: Choice of words is important. In recent years, many people have adopted the “people first language” such as saying “people with disability” instead of “the disabled”. Somewhere along this line, someone decided that disabled is a “bad” word to use, but in my opinion, there's nothing wrong with it. That being said, I can only speak for myself and I don't mind being referred to as disabled. Also, allow kids to ask questions. Kids are inquisitive by nature and I believe most persons with disability would be fine answering their questions. Instead, most parents would try to hush their kid. That child might grow up to avoid speaking to someone in a wheelchair. They should feel free to ask any questions that are not intrusive. One way to phrase your question could be to ask if the other party is okay with answering a potentially sensitive question, instead of starting off with “What's wrong with your legs?”. Lastly, I believe education is important. Don't shy away from speaking to someone in a wheelchair. What I mean by being educated would be knowing that you should ask whether we require help, instead of just rushing forward to help us because it may feel uncomfortable to see someone struggling up a slope, for example. It's important to note that one should offer help instead of assuming someone needs help.

About the Athletes



Nur Syahidah Alim is known as the World's Number One para-archer after clinching the gold medal in the 2019 World Archery Para Championships in the Netherlands. She is born with cerebral palsy. Besides various other medals won since her international debut in 2015 at the ASEAN Para Games, Syahidah was also crowned Sportswoman of the Year (2020) at the Singapore Disability Sports Awards. Syahidah is currently a member of the Asian Paralympic Committee (APC) Athletes Committee.

Claire Toh plays table tennis and competed in the 2015 and 2017 ASEAN Para Games after a fall in 2012. Overcoming the paralysis from her chest down, constant nerve pain and other health-related difficulties, Claire continues to play and compete as part of Singapore's Para table tennis team.





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