Football Research Takes Center Stage

As the football (soccer) world prepares for the FIFA World Cup Qatar 2022™ from November 21 to December 18, 2022, *IJSPP* is once again delivering a special collection of scientific articles containing some of the most cutting-edge applied research on football physiology and performance, for the benefit of football (and other related team sports) sport scientists and practitioners. This collection follows on previous *IJSPP* special issues on football research in connection with the men’s FIFA World Cups of 2014 in Brazil (Volume 9, Issue 3, May 2014) and 2018 in Russia (Volume 13, Issue 5, May 2018).

The FIFA World Cup Qatar 2022™ will be the second football World Cup held in Asia, and the first ever hosted by an Arab country. The competition will take place in 8 playing locations that are very close to each other. Indeed, these venues are located in 5 cities in Qatar, all within an area of just 370 km². The average stadium capacity is 47,500 seats (80,000 seats for the iconic Lusail Stadium hosting the final match). As in the previous 2 World Cups, there will be 32 participating teams, 64 matches, and an expected stadium attendance of over 3 million spectators over the competition. The organizers are expecting around 1.7 million visitors from around the world, including players, staff, fans, and media. Please consider these numbers in relation to the country’s actual population, ~2.9 million!

Interestingly for sport physiologists in particular, this will be the first time a World Cup is played in autumn (for the northern hemisphere), in an attempt to avoid the extreme summer heat of the Middle East. Nevertheless, based on historical data, ambient temperatures at that time of the year are expected to range between highs of about 23–27 °C (73–81 °F) and lows of 16–21 °C (61–70 °F), with rather low relative humidity: 10%–30%. Although not extreme, such values suggest that heat adaptation may become a performance-determining factor, especially for participants coming from cooler parts of the world. However, we’d like to emphasize the word *may*, because all stadiums will be air conditioned through grills built into the stands and large nozzles alongside the pitch. This will affect player performance (and spectators’ comfort and respiratory system health!) may become an unexpected research topic. In addition, environmental stressors like eastward or westward travel and time-zone change may also affect international players’ performance. Another interesting novelty requiring particular attention from researchers and practitioners alike is that some of the world’s strongest national leagues will have to be interrupted after approximately 3 months of competition (eg, England’s Premier League, Spain’s La Liga, Germany’s Bundeslig), and a congested match schedule will follow after the World Cup. This, of course, may have serious implications in terms of training periodization, risk of injury, and players’ physical and psychological well-being for the 2022–23 season.

Like the whole of society worldwide, the world of football has been shaken by the COVID-19 pandemic in recent times. It is therefore sensible to include an invited commentary dealing with preventive measures and infection-control policies aiming at a safe game environment in this special issue.

The FIFA World Cup is a demanding tournament in itself, with a busy match schedule that justifies a strong focus on player recovery, but recovery becomes even more crucial when such a tournament is preceded by a long series of national league, cup, and continental competition matches. With this in mind, an invited brief review in this special issue focuses on the effectiveness of postmatch recovery methods in professional football. In addition, papers of the original investigations in this issue deal with recovery through far-infrared radiation-lamp therapy, recovery and sleep after long-haul travel for international competition, and recovery during a congested match schedule and its association with injury. These studies will enhance knowledge of how to best manage a player’s recovery.

This special issue also contains original investigations dealing with a wide range of football-related topics. Participants in 3 studies are adolescent/youth players, and the authors examined sprint training and hip adduction strength from youth to senior ranks, maturation-related changes in running performance, and monitoring of physiological state through small-sided games in youth players. The rest of the studies include elite/professional players and focus on gastrointestinal hormones and player morphology and their associations with performance, physiological kinetics and sprint kinetics, the impact of physical and mental fatigue on psychomotor vigilance, differential ratings of perceived exertion in relation with external intensity and load, and the impact of eccentric muscle actions on jump performance.

The football World Cup is always a great opportunity for football research to take center stage and for sport-science researchers to continue making meaningful contributions to players’ recovery and performance optimization, particularly in the context of periodization issues and environmental constraints. This major sporting event also offers sport-science practitioners a remarkable opportunity to put in place preparation strategies drawn from sound applied research, to collect high-quality data on the world’s best players during real-life international competition, and to learn new and important lessons from the information gathered. Last but not least, the FIFA World Cup Qatar 2022™ will be an opportunity for football lovers throughout the world to enjoy an outstanding event of sport, peace, and shared emotions beyond borders, flags, and international political conflicts. May past, present, and future *IJSPP* special issues on football physiology and performance make a contribution to that enjoyment!

**Reference**