In August, authors Pat Byrne and Suzanne Byrne published their new book, *Inconvenient Sleep: Why Teams Win and Lose*, in which the father-daughter duo discuss the latest research and findings related to sleep and fatigue solutions for athletes, teams, sports leagues and officials. While their book provides insights for athletes and teams, the knowledge and new ideas discussed are applicable to anyone that sleeps. Brendan Duffy, RPSGT, RST, CCSH, and Monica Roselli, assistant editor of A2Zzz, recently spoke with Pat and Suzanne about their book, the current state of sleep and sports, and what they hope people take away from reading their recent findings.

**A2Zzz:** What was the goal of putting this book out there? Tell us a little about the process from conception to publication.

**Pat Byrne:** The book was kind of an evolutionary process for us. I started working with the Vancouver Canucks years ago and really saw how sleep was affecting their performance. Suzanne was part of this as well — she was in high school when I started, but she used to come with me. And what we learned was that most athletes and teams knew little about sleep or how sleep affected performance and what to do about it. In talking to them, we learned they were learning from Google and there was a lot of misinformation out there and athletes were just on the wrong path. So we wanted to write the book to educate teens, athletes and the general public about sleep science. The process took several years — we read close to 10,000 pages of reference material — and we interviewed athletes, officials, coaches and researchers.

It’s not just about sleep science. There are many other things in our society, everything from a lie detector test to stem cell research, where people fall into the trap of looking at bad science and so we wanted to say sleep can also be part of that bigger process of public misinformation.

**Suzanne Byrne:** To add to that, I’ve been in the sports world as an athlete and a coach and I was always flabbergasted at how everyone was like ‘oh, the Fitbit, can do this and that,’ not even understanding what a simple validation study is. So we really wanted to hammer that home as well. We’re also trying to explain the science through stories about the researchers. Hopefully the readers will be able to understand the concepts and are able use the information directly in their work.

**A2Zzz:** It is often stated that LeBron James sleeps up to 12 hours a day, including naps. Can you elaborate on the effects of famous athletes sharing this information?

**PB:** All of the famous athletes that come out and say they’re sleeping 12 hours is all self-reported sleep. I’ve never seen studies or objective sleep data from these athletes. We’ve worked with a lot of high profile athletes and I can tell you they sleep less than 12 hours. I think it’s a combination of wishful thinking that they’re getting 12 hours and poor sleep reporting. I personally don’t believe they’re getting 12 hours. That said, if they’re trying to maximize their sleep, that’s great too, but the problem with high profile athletes like LeBron coming out saying you need to sleep 12 hours causes anxiety for younger athletes who then think [they] need to get 12 hours of sleep when they don’t need to. In the book we talk about how each individual athlete needs to decide how much sleep they really need and not pay attention to the hype.

**SB:** I will add that if what people are getting from LeBron’s statement is that sleep is important and he’s trying to promote sleep amongst younger people, then I’ll take that any day over a CEO saying sleep when you’re dead. In our book we also talk about issues that...
can occur when you are sleeping too much or other issues that may be causing you to sleep too much as well.

A2Zzz: Are you seeing athletes be more open about addressing sleep disorders compared to when you first started or are sleep disorders still something they don't want to discuss?

PB: Part of the problem in professional sports is I think that athletes don't want to seem vulnerable and they want to send the message to their teammates, other players and coaches that they are ready to go all the time. They don't want to show any weakness. When I gave my very first talk to the Canucks players, there were no questions. About half a dozen of them came to me privately later to talk about things they didn't want to talk about in the dressing room because they didn't want to seem vulnerable. It's hard to get players to admit that they have any kind of issue, whether it's a mental health issue or a sleep disorder, publicly. But that is changing and we talk about it in our book.

SB: That's a large reason why we don't disclose who our clients are, because sleep is still seen as an issue that needs to be fixed. I don't think most teams are anywhere near fixing sleep disorders with their athletes. Just because a lot of teams are doing in-house sleep monitoring, doesn't mean they have the knowledge to read a report and understand if it's good or bad.

PB: Most teams don't do what we call the diagnosis. So if the players are not sleeping well, they immediately think it's a lifestyle issue or they need to go to bed earlier, get off their smartphone.

Teams don't get into that next level, which is to get a proper sleep screening done and test for sleep apnea and restless legs syndrome and look at mental health issues. They don't look at everything — diet to medications — they don't look at the full spectrum of issues that can affect sleep and they tend to hone in only on lifestyle issues, which is a mistake we think.

A2Zzz: If players can't go to sleep after a game, is it better just to travel back home since they will be awake anyway — assuming a two- or three-hour trip home from a road game?

PB: It depends. And that's one of the values that we have given to teams over the years, which is to create a team sleep profile. Each team is different, but they need to know how long it actually takes players to get to sleep after games. If it's taking players on the team three hours to get to sleep after a game and they can travel and get into their beds within that three-hour window, then they should go ahead and do it. You need to know how your team is sleeping before you can make the decision whether to travel or not.

What we found is that teams and different leagues have tried different things. What we say in the book is to get a team sleep profile and know how your players are sleeping, then you can make smarter decisions about travel. If you don't, you're guessing and the coaches I've dealt with haven't been very good at guessing.

SB: Don't forget it's not just flight time because once you land at the airport, you have to go back to the stadium to get in your car and drive home or maybe you're parked at the airport and can drive home, but how long does it actually take you to get into your bed?

The other issue [teams face] is that there is quite a high turnover year to year so you can't just use a sleep profile from five or even three years ago.

A2Zzz: In the book you touch on the concept of quieting the mind. Tell us more about that.

PB: We knew some of the [Canucks] players were taking a long time to get to sleep after a game. Some of them not getting to sleep until two or three o'clock in the morning when the game was over at 10 o'clock. We looked at ways we could help reduce that time and we connected with Dr. Leonard Zaichkowsky, who wrote the foreword for our book, who said let's work on some breathing techniques. The players would go into a dark room after a game and practice breathing techniques where they would breathe in and out slowly every few seconds. It was also about timing — they were only in [the dark room] for maybe 15 minutes, but this helped lower breathing rates and calm their bodies down. We were able to show that this reduced the amount of time needed to get to sleep after a game.

A2Zzz: How important is sleep for college athletes? What are the next steps you'd like to see college teams do in supporting sleep for college athletes?

PB: I think the next step is to meet with the coaches and management and ask what they are prepared to do to support these guys. And, that's the next step for us — do they want us to help them? Educating players is one thing; educating coaches and management is a different level and the teams that we've been successful with are the ones where we started with educating the coaches and management before even going to the players.

SB: College athletes, and I can speak to this as I have been an NCAA athlete, have a lot going...
on. They need constant reinforcement. We cited a study in the book about how well just one or two talks went with athletes. It only had a short-term effect on their sleep behavior. It's constant reinforcement and showing them the effects of lack of sleep. For instance, they had a game on this day and they went out the night before. Do they understand how they feel? By the end of the game they are performing poorly and [their lack of sleep] shows. We show them their stats and match that up with their activity data. Additionally, you have to get a baseline or check for sleep and mental disorders and everything else that goes along with it. These issues are quite common in sports generally, especially at the university level.

A2Zzz: You spend a great amount of time discussing sleep pioneer Eugene Aserinsky. Can you speak more to his role in sleep medicine and do you think he gets overlooked?

PB: He's one of the sort of lost souls in the history of sleep and I think he's a very interesting, independent character who was sort of in and out of sleep research. I think, for sleep technologists, they may not even understand where EEG came from and that Hans Berger wasn't even looking for brainwaves, rather he was looking at telepathy between him and his sister. He stumbled onto EEG and it's the same with Aserinsky. He wasn't looking for REM sleep he just happened to find it. It's all these sort of coincidences that pulled together sleep science and created the technology that the technologists use today. We think that the history helps people better understand the technology they use.

A2Zzz: With all of the professional sports playing in bubbles due to COVID-19, do you think they'll perform better because they're not traveling or worse because of their anxiety about being away from family and having to travel?

PB: I don't know if anybody's actually doing any work in that area, but my guess is that it's going to be a combination. I'm sure they're not going to have the travel issues that they usually have, which is good, but they're also away from their family, for the most part. From what I've heard from people within the bubbles, there is sheer boredom and anxiety around COVID-19. Maybe it's a tradeoff but we don't know and we don't have studies on it.

SB: I can see it being quite personalized too because we do see that different people can sleep on the road, better than others. The bubble does take away the circadian advantage or disadvantage, should there have been one, with everyone staying in the same spot. I think it's quite individualized as to who can cope with the anxiety and the amount of anxiety they are feeling.

A2Zzz: What is the biggest takeaway you hope your audience gets from reading your book?

PB: I would say that most sports are team sports and sleep and managing sleep properly is a team sport. It's not just the individual. It takes an entire team to help the player. It has to do with scheduling, infrastructure and the support of the team.

SB: We wrote the book hoping to give the reader enough knowledge to make better decisions about sleep and sleep technologies. I'm not sitting here saying you have to do this, you have to do that. It is not an A to Z list of things to do. The book is about understanding important concepts that can be applied to any athlete. I hope that, if you read the book, you will have a better understanding of how to help athletes and others deal with sleep issues.

BRENDAN DUFFY, RPSGT, CCSH, is an AAST board member and a certified sleep educator. He is a former travel baseball/hockey coach and has been employed in sleep medicine clinical settings for over 20 years.

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