The Yips, Potential CTE-Depression Link and More

— New sports psychology articles raise research questions

by Ryan Basen, Staff Writer, MedPage Today
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Writing in *The Hardball Times*, family physician Kyle Jones, MD, posits an interesting theory: Some ballplayers who experience "the yips" and suddenly cannot execute routine plays may be suffering from a physical condition. "Many baseball players who suffer from the yips do have a psychological cause, but how many are we missing who may have a neuromuscular condition?" he wonders.

Jones' column was posted today, amidst several studies highlighting sports psychology and psychiatric issues recently published in journals:

- *Medicine & Science in Sports & Exercise* published an updated consensus statement for team physicians about psychological issues related to athletes' illnesses and injuries, assembled by six clinical sports medicine professional associations. It's important to have team doctors "understanding illness and injury, regardless of medical recovery, often involves a psychological impact," co-author David Coppel, PhD, a neuropsychologist at the University of Washington, told *MedPage Today*. "I think these are important

factors. Oftentimes these are the things that make a difference in the athlete."

- *Sports Health* published an article about how fear of re-injury affects rehabbing athletes. "Fear of re-injury is a psychological response to sports injury that can negatively affect rehabilitation outcomes, including preventing a successful return to sport," authors wrote. "Incorporating principles of psychologically informed practice into sports injury rehabilitation could improve rehabilitation ... Future research can fill knowledge gaps to determine the best ways."

"Most physical therapists and clinicians focus on resolving physical impairment," said corresponding author Chao-Jung Hsu, PhD, a physical therapist at Shirley Ryan AbilityLab in Chicago. "Now we want to highlight the importance of psychosocial factors ... to provide treatment that matches the needs of patients."

- Dutch authors reviewed 25 years' worth of studies on traumatic brain injury in pro football players, finding: "There is strong evidence for a relationship between a history of concussion in American football and depression diagnosis later in life, and there are strong hints that this is a dose-response relationship." This article, published online this week in *Clinical Journal of Sport Medicine*, echoes a recently published sports concussion Consensus Statement, which found "that some former athletes" suffer from depression and cognitive deficits after retiring, and these deficits are associated with sustaining multiple concussions.

Unlike the Consensus Statement, however, this systematic review suggested that chronic traumatic encephalopathy (CTE) may be linked: "The strongest relation we have

discovered, between concussion and depression, all occurred in retired players older than 45 years. Depression is a common consequence of brain injury," the authors wrote. "The biological or psychological pathway of that association has not yet been clarified. One possible explanation of the relationship between repeated concussions and depression can be found in the occurrence of [CTE]."

Digging into 'The Yips'

The most intriguing new publication -- at least to me, a non-clinician -- offers Jones' theory on the yips in sports. You could form a competitive team with the list of major leaguers who suddenly lost the ability to throw the ball accurately: Rick Ankiel, Chuck Knoblauch, Steve Blass, and Steve Sax, to name a few.

"For baseball players with problems throwing, performance anxiety is at the top of [my list]," orthopedic surgeon Steve Jordan, MD, told Jones. "Most experts in sports psychology consider it a mental problem related to stress, anxiety or 'misplaced focus'." Writes Jones: "This is why the first line of treatment is nearly always psychological."

Take Ankiel. He credits the late sports psychologist Harvey Dorfman for helping him overcome anxiety and transform himself from phenomenon-turned-spooked pitcher into Major League-caliber outfielder. Ankiel lost the ability to consistently throw a ball 60 feet accurately, at his own pace -- but he had no trouble making longer, hurried throws from the outfield later in his career.

Did he also suffer from a neuromuscular condition? Jones tells of referring a yips patient, a college baseball coach, "to a neurologist, who like me also had no clue, and thus sent him to yet another neurologist who specialized in movement disorders." That specialist diagnosed the coach with focal dystonia.

But Jones was not fully convinced. "The thing that stood out to me throughout this whole process, and makes it somewhat unique from the typical presentation, was that Coach X's arm also didn't function normally in everyday situations that had nothing to do with baseball," Jones writes. "Is it possible that we are misdiagnosing many players who may very well have a neuromuscular disease leading to their early exit from baseball?"

It's a theory worth examining.

But if scholars begin exploring it, I hope they don't dismiss psychological issues entirely. Ankiel's new book makes a strong case for the yips (or "The Thing" as he calls his anxiety) as a psychological phenomenon. To play armchair therapist: He grew up in a house with an abusive father, lost his best friend to a car accident at 13 and channeled that adversity to steel himself into an elite pitcher. Alas, his father and friend were both instrumental in building that pitcher, and when Ankiel took the mound before 40,000-plus fans (and a much larger television

audience) for his first postseason start as a 21-year-old rookie in 2000, he suddenly lost his control. Anxiety soon gripped his life and he never was a reliable starter again.

More anecdotal evidence: Growing up on the diamond, I preferred playing third base to second. The extra split-second a ground ball took to reach me at second was enough for me to think about what to do when I fielded it, and I was stationed so close to first base, often with plenty of time to get the runner. Playing third often demanded quick reactions and a much longer throw -- a toss that was especially challenging to get across the diamond when I was very young.

Did that challenge demand so much focus that my own anxiety could not interfere, as it often did at second? Why did I sometimes fear a soft grounder hit to me at second, but never a hot shot slicing towards my vulnerable, thin body at third (even on days I forgot to pack a protective cup)?

These are questions for professionals to answer.

"The ultimate causes of the yips are not well understood -- we just don't have enough information," Jones writes. "If we properly diagnose and treat the problem, we may end up saving some careers."

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