How prior athletic participation can help future physicians

MAY 10, 2023

Brendan Murphy
Senior News Writer

Former high-level athletes have proven to be more equipped to handle burnout during medical training, a recent literature review found.

Participation in athletics at some of the highest levels could enhance certain key characteristics and skills associated with success in training to be a physician, according to a recent published systematic review.

For the study published in Medical Education, researchers found 18 studies meeting inclusion criteria. That research found “associations between prior athletic participation and better outcomes in multiple performance indicators, including exam scores, faculty ratings, surgical errors and burnout.” Most studies in the review drew on athletic participation at the highest levels, including collegiate and Olympic sports.

“There’s a mindset as well as a culture that you’re taught at a collegiate level” in sports, said Michael D. Sgroi, MD. He is the senior author of the study and is the associate residency program director of vascular surgery at Stanford University.

“From a culture standpoint, the time and effort that goes into being a collegiate athlete just by itself is quite labor intensive … it is a full-time job,” Dr. Sgroi added. “You add on to that the time commitments of classes, and, in particular, pre-med classes, there needs to be a set of characteristics that an individual has to be able to really do that at a high-achieving level.”

Performance in training

While medical students with prior, high-level athletic participation have shown superior performance on standardized assessments such as Steps 1 and 2 of the United States Medical Licensing Examination® and year 3 shelf exams, the totality of prior research found little correlation between
athletic performance and overall medical school success.

The results were more conclusive on resident performance. All five studies examined in the paper found that prior participation in athletics was a predictor of success on various metrics during medical residency. At both the medical school and graduate medical education levels, the paper identified that prior athletic experience was also a predictor of intrinsic motivation and a lower risk of burnout.

A former college football player who teaches an undergraduate course at Stanford that aims to expose athletes to careers in the health professions, Dr. Sgroi spoke of the experience that athletics may breed a measure of resiliency.

“When it comes to this generation and why some of the student-athletes may be doing a better job with burnout, I think the reasons behind that are probably twofold,” he said. “One, it's that they're just more tolerant of the long hours. Secondly, I think sports teach you how to absorb critique better—where it's not a constant negative weight on you over time.

“If you had a bad outcome or a bad play or whatever, you can wash that out of your memory and learn from your mistakes, then focus on the next task at hand,” Dr. Sgroi said, speculating on the factors that may explain the data. “Athletes learn those type of skills that they can take into medicine. When there are those hard days or there are those sick patients that don't do well no matter what you do for them or those complications that you have, they're able to absorb it, learn from it and build off it.”

Building necessary skills

Not everybody has the ability or the opportunity to participate in sports at the highest level, but Dr. Sgroi noted that the qualities gained from athletic participation can also be honed in a number of other arenas.

“We talk about sports and teamwork, and we talk about learning how to communicate and work and build and grow together,” he said. “Those are the same types of skill sets that could be attained through extracurricular activities, being part of some social group or some advocacy group where you start as a volunteer. As you build and develop a relationship with that group or with that community—that’s an opportunity for growth.”

At the local or national level, the AMA is your ally in providing you with opportunities to develop your medical student leadership skills and advocate for patients and the profession. Join the AMA and get access to leadership training, increase relevant skills and network with peers.

Copyright 1995 - 2021 American Medical Association. All rights reserved.