

The Focus on Public Health and Health Disparities Highlights Opportunities for Athletic Trainers to Demonstrate Value

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As we the start the 2020-2021 academic year, receive updates from athletics associations and departments of public health regarding changes to the 2019 novel coronavirus (COVID-19) precautions and restrictions, and reflect on the past 6 months since the start of this global pandemic, athletic trainers may be worried that we will lose ground in our progress in providing access to health care in the secondary school setting. With the suspension of athletics competitions and practices, there is the potential that administrators will lose sight of the influence athletic trainers and our health care professional colleagues working in sports medicine have on the long-term health and well-being of their adolescent patients.

As school boards and health departments weigh the benefits and consequences of cancelled or postponed sports seasons, are programs and administrators also looking at athletic trainers as a ready and highly qualified resource available to assist and coordinate adolescent health care services in the schools alongside the school nurse, counselors, and case managers? How are we using this pandemic to reframe our roles as primary care providers and to advocate on behalf of our patients beyond the needs of athletics and sport? How can the focus on public health and health disparities highlight the opportunities for athletic trainers to demonstrate value in health care?

As the potential for cancellations looms and the costs for athletics are weighed against the needs for funding elsewhere in the secondary school setting, there have been increasing reports of athletic trainers being furloughed from their positions with hospitals and rehabilitation clinics, contracts between secondary school systems and clinics not being renewed, and the loss of access to high quality health care provided by athletic trainers. We are in this situation, in part, because athletic trainers and the sports medicine community have not laid a strong enough foundation to describe our roles and capabilities beyond the athletics arena and the day-to-day coverage of practices, games, and events. We have also not yet fully embraced the social determinants of health in our clinical practice patterns.

The profession has focused a considerable amount of its research and its reputation on helping athletes become bigger, faster, and stronger and ensuring a safe return to play and performance. We have moved the needle considerably over the past decade to drive discussions to include preventing catastrophic injuries, sudden death, bone and joint health, and sequela from concussions and subconcussive head impacts, as well as those longer-term concerns of lifetime well-being, reducing chronic disease and comorbidities, and mental health. However, we have not done as good a job of preparing athletic trainers to also be ad-

vocates for reducing adverse childhood events and the impacts of poverty, food insecurity, housing insecurity, violence, and the health disparities afflicting our communities, particularly in communities of color. As the events of 2020 have demonstrated, our communities are concerned about these issues and the trauma that they create while simultaneously looking to school-based sports programs and planned opportunities for physical activity as safe spaces to counteract these concerns.

In the fall of 2019, the National Academies of Sciences, Engineering, and Medicine published “The Promise of Adolescence: Realizing Opportunity for All Youth”¹ describing the challenges that adolescents face in the United States and the role of the health care system in supporting adolescent achievement and well-being. Regrettably, athletic training is not mentioned. Physical activity and sport have been demonstrated to be protective factors against lifetime illness. The role of athletic trainers in the broader concern of public health has to be included in our discussions as “prevention first” clinicians.

Within a public health perspective, the biopsychosocial and socioecological models of health²⁻⁴ consider the drivers and determinants of health from the individual to the macro level. These models assist us in identifying barriers, resources, and interventions that affect health and reduce health care costs. The Institute for Healthcare Improvement introduced the Triple Aim⁵ as a framework for addressing these goals: lowering costs, improving patient outcomes and satisfaction with the health care system, and improving the population’s health. A fourth aim has also been introduced that emphasizes the goal of improving provider well-being.⁶ If caregivers are not able

to take care of themselves or experience burnout, there are negative consequences for the provider (substance use and abuse, mental health concerns, increased absenteeism, and attrition) and for the patient.

Unfortunately, few studies describe the role of the athletic trainer as a care coordinator in our traditional settings and as population health specialists and drivers of cost containment.⁷ Health care systems are looking for evidence that demonstrates how care coordination nearest to where the patient lives, learns, works, and plays can impact the Triple Aim. If the school-based health care model also incorporates athletic medicine, it will hopefully demonstrate that care coordination improves the health concerns of the individual, the family, the school, and the community.

There is logic to the work athletic trainers (and other caregivers and support systems) do in the secondary school setting to prevent and increase resilience against the long-term consequences of adverse childhood experiences (ACEs).⁸⁻¹² We have just never used that language in athletic training clinical care, and that needs to change to demonstrate our value. To mitigate the impact of ACEs, several interventions have been advocated to prevent the likelihood of individual and familial neglect and abuse.¹³⁻¹⁵ First, to provide for the basic needs for families (food, shelter, safety, security, and education), athletic trainers should be able to refer caregivers to the resources available to assist in accessing these critical needs. Second, athletic trainers should provide support services for complex conditions in living environments to mitigate the likelihood and impacts of trauma. These include afterschool programming, counseling and grief support, economic opportunity and employment, violence prevention,

and place-based interventions for substance use disorder. Although many of these elements fall outside the scope of athletic training clinical practice as a care coordinator and provider within an afterschool program, athletic trainers should advocate for their inclusion in their communities.

Where athletic training may demonstrate the greatest impact is in the ability to improve resiliency and to minimize the consequences of ACEs later in a patient’s life. First, it has been demonstrated that strong supporting nurturing environments are essential in supporting children and adolescents experiencing trauma.¹⁶ Are athletic training clinics welcoming environments where patients and caregivers feel respected and where athletic training demonstrates a commitment to well-being over winning? Even in the absence of supportive, functioning households and caregivers in the home, are athletic trainers “present” for their patients and an available adult whom they trust? Do athletic trainers support the development of strong community and school organizations that create bonds within the neighborhood/environment? When adverse events happen in a patient’s life, are resources available and mobilized to demonstrate support? Are athletic trainers partnering with parent-teacher organizations, booster clubs, and local agencies to embed themselves as members of the community?

The second resiliency factor that has been effective in mitigating the impact of ACEs is programs that teach core life skills to children and caregivers. Strategies and skills to set goals and create and execute a plan improve self-efficacy.¹⁷ Athletic trainers do this in response to injury or illness with the return to play and return to work process. Do we have data that demonstrate those skills being transferrable to

resilience in other arenas? The skills of emotional regulation and adaptability are essential to avoid high risk health behaviors. Athletic trainers can provide this skill set in the return to play process and work with coaches and caregivers to support impulse control and future violence and behavioral health concerns. Furthermore, in overcoming obstacles (often presented as the win or lose narrative in sport), patients develop resiliency.

The third resilience factor, which has received the least research and discussion in athletic training clinical practice, is the mobilizing sources of faith, hope, and cultural traditions.¹⁸ There is a rich community of athletic trainers who are committed to their own spiritual life and the lives of others. There are also committed athletic trainers working on diversity, equity, and inclusion initiatives that are drawing clinicians together to celebrate our differences and highlight our contributions. The challenge is for athletic trainers to also consider how we intentionally discuss these issues with our patients, without infringing, feeling “preachy,” or straying away from a perceived “secular” health care delivery system.

Translating and promoting the publications from the National Academies, the National Institute for Minority Health and Health Disparities, and other federal, state, and local agencies to our work in sports medicine and athletic training is crucial to making the case for athletic trainers to work collaboratively with other health care professionals within this new and challenging climate. Presenting athletic trainers as primary care providers empowers us to consider new ways of thinking about ACEs and health disparities, the potential impact on long term health, the physical consequences of toxic stress on brain development, behavioral medicine and risk taking, the role of inflam-

mation on immunity, cardiovascular diseases and endocrine disorders, and the benefits of physical activity on these concerns. The challenge for athletic trainers is to evaluate our roles, to demonstrate our impact on the Triple Aim and ACEs, and to educate ourselves further on not just the “causes of poor health,” but the “causes of the causes” of poor health. We have considerable work to do, but I know we are up to the challenge.

REFERENCES

1. Bonnie RJ, Backes EP, eds. *The Promise of Adolescence: Realizing Opportunity for All Youth*. National Academies Press; 2019:25388.
2. McLeroy KR, Bibeau D, Steckler A, Glanz K. An ecological perspective on health promotion programs. *Health Educ Q*. 1988;15(4):351-377. doi:10.1177/109019818801500401
3. Shonkoff JP, Garner AS, Siegel BS, et al; Committee on Psychosocial Aspects of Child and Family Health; Committee on Early Childhood, Adoption, and Dependent Care; Section on Developmental and Behavioral Pediatrics. The lifelong effects of early childhood adversity and toxic stress. *Pediatrics*. 2012;129(1):e232-e246. doi:10.1542/peds.2011-2663
4. Braveman P, Gottlieb L. The social determinants of health: it's time to consider the causes of the causes. *Public Health Rep*. 2014;129(suppl 2):19-31. doi:10.1177/003335491412915206
5. Institute for Healthcare Improvement: The IHI Triple Aim. Accessed May 15, 2018. <http://www.ihio.org/80/Engage/Initiatives/TripleAim/Pages/default.aspx>
6. Bodenheimer T, Sinsky C. From triple to quadruple aim: care of the patient requires care of the provider. *Ann Fam Med*. 2014;12(6):573-576. doi:10.1370/afm.1713
7. Noel-London K, Breitbart A, Belue R. Filling the gaps in adolescent care and school health policy-tackling health disparities through sports medicine integration. *Healthcare (Basel)*. 2018;6(4):132. doi:10.3390/healthcare6040132
8. Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *Am J Prev Med*. 1998;14(4):245-258. doi:10.1016/S0749-3797(98)00017-8
9. Easterlin MC, Chung PJ, Leng M, Duvovitz R. Association of team sports participation with long-term mental health outcomes among individuals exposed to adverse childhood experiences. *JAMA Pediatr*. 2019;173(7):681-688. doi:10.1001/jamapediatrics.2019.1212
10. Woods-Jaeger B, Berkley-Patton J, Piper KN, O'Connor P, Renfro TL, Christensen K. Mitigating negative consequences of community violence exposure: perspectives from African American youth. *Health Aff (Millwood)*. 2019;38(10):1679-1686. doi:10.1377/hlthaff.2019.00607
11. Center on the Developing Child at Harvard University. Resilience. Accessed February 26, 2019. <https://developing-child.harvard.edu/science/key-concepts/resilience/>
12. Garner AS, Shonkoff JP, Siegel BS, et al; Committee on Psychosocial Aspects of Child and Family Health; Committee on Early Childhood, Adoption, and Dependent Care; Section on Developmental and Behavioral Pediatrics. Early childhood adversity, toxic stress, and the role of the pediatrician: translating developmental science into lifelong health. *Pediatrics*. 2012;129(1):e224-e231. doi:10.1542/peds.2011-2662
13. Fuller J, Longnathan M. Poverty as a medical condition. *CMAJ*. 2018;190(34):E1022. doi:10.1503/cmaj.69637
14. Ginsburg KR, McClain ZBR, eds. *Reaching Teens: Strength-Based, Trauma-Sensitive, Resilience-Building Communication Strategies Rooted in Positive Youth Development*, 2nd ed. American Academy of Pediatrics; 2020.
15. Miller BM, Auerbach J. Deaths of despair can be prevented with a comprehensive strategy. Published March 5, 2019. Accessed July 12, 2019. <https://www.statnews.com/2019/03/05/deaths-despair-prevention-comprehensive-strategy/>
16. Biglan A, Flay BR, Embry DD, Sandler IN. The critical role of nurturing environments for promoting human well-being. *Am Psychol*. 2012;67(4):257-271. doi:10.1037/a0026796
17. Public Schools First NC. ACEs and Resilience: What Can We Do? Accessed August 6, 2020. <https://www.publicschoolsfirstnc.org/resources/fact-sheets/aces-and-resilience-what-can-we-do/>
18. Reinert KG, Campbell JC, Baneen-Roche K, Lee JW, Szanton S. The role of religious involvement in the relationship between early trauma and health outcomes among adult survivors. *J Child Adolesc Trauma*. 2016;9(3):231-241. doi:10.1007/s40653-015-0067-7