

Physical literacy: why should we embrace this construct?

E Paul Roetert,¹ Todd S Ellenbecker,² Dean Kriellaars³

In this editorial, we provide a brief explanation of the physical literacy construct and its potential to contribute to the education, safety and overall development of a healthy life for the full lifespan. Although there has been a significant focus on teaching the competence component of being physically active, there has been a lack of focus on teaching people the confidence, desire, motivation, enjoyment and social benefits of physical activity.¹⁻³ Therefore, we challenge the sports medicine and health-related professions to embrace and implement physical literacy's holistic approach (both mind and body) to physical activity. The term physical literacy has been used in the academic literature since the 1930s¹; however, it was not until the 1990s that the construct was re-introduced, embraced by several countries and gained significant attention.¹⁻³ Following a number of iterations, the International Physical Literacy Association settled on the following definition: *Physical Literacy is the motivation, confidence, physical competence, knowledge, and understanding to value and take responsibility for engagement in physical activities for life.*⁴ Much of the available research thus far has focused on the sport and education sectors and specifically on the younger generation.^{1,3,5}

Focusing on the younger generation can have a substantial impact on the health of future generations. However, as the definition indicates, physical literacy is a broader construct than physical education or just participating in physical activities. In addition to developing the physical capacities and enhancing movement skill execution, there must be a concomitant and purposeful intervention aimed at instilling confidence and motivation to execute and purposefully use these movement skills in the real world beyond just the high school years.⁵ In virtually every country, physical education is viewed as a

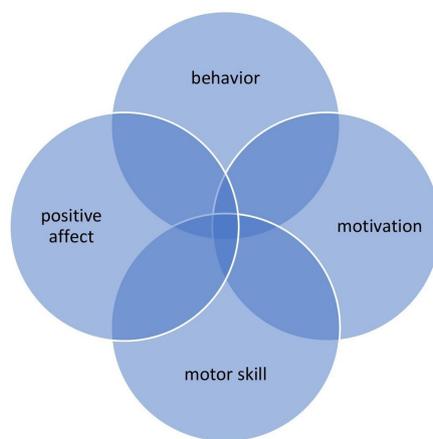


Figure 1 Core elements of physical literacy.

class taught in the school system, limited to the childhood years. An additional concern is that there has been a decrease in physical education programmes, an increase in early sport-specialisation and a greater focus on elite sport programmes, which have all led to fewer opportunities to teach fundamental motor skills and develop physical competence, decreased participation for all levels of athletes (regardless of ability or experience), a secular trend of increasingly sedentary lifestyles and associated negative psychological outcomes (ie, anxiety and depression) leading to an increased risk of injury in our young population.⁶ As a solution, physical literacy and its core elements of motor skill, positive affect, motivation and behaviour can help support children to be active and maintain physical activity across the life course (figure 1).⁵

These elements provide students with the building blocks and guidance along their physical literacy journey, which can prevent many physical problems as they grow older. SHAPE America, the national physical education organisation for the USA, has already taken the bold step by incorporating physical literacy into each of their national standards.^{1,3} As outlined by Cairney *et al*, physical literacy can provide a powerful framework from which to view movement in relation to its fundamental skill elements, the environmental context in which those movements occur and the positive affective elements that produce

Box 1 Sports medicine professional's role in developing physical literacy

- ▶ Focus on the prevention as well as rehabilitation of injuries to help provide a lifetime of safe and enjoyable physical activity.
- ▶ Recommend an increased focus on purposeful participation in physical activity to develop confident, competent and motivated movers.
- ▶ Advocate for the need to have quality physical literacy experiences in sport and recreation, which have deliberate practice methods of well-designed learning tasks and concepts (eg, balance, spatial awareness, movement decision-making and sequencing) that allow for skill acquisition in an instructional climate focused on mastery and where the level of challenge is offered suitable to each person's ability.
- ▶ Promote positive motivating learning experiences that encourage continued participation.
- ▶ Engage with the learner as a holistic individual rather than a person with a 'mechanism' to be healed/corrected.
- ▶ Adopt the concept within sport, recreation and other physical activities for the benefit of all regardless of physical/mental/emotional challenges.
- ▶ Embrace the concept to enrich the quality of our own lives as well as those around us.
- ▶ Impact a global decrease in sedentary behaviour and overall physical inactivity to affect a decrease in non-communicable diseases including obesity, as well as an increase in safety (eg, fractures, drowning).
- ▶ Integrate key core stabilisation and overall movement and whole-body interventions into the primary high-level treatment of musculoskeletal injuries.

lasting connections of movement experiences to positive psychological states.⁵ Therefore, in spanning the age groups throughout a lifespan, physical literacy is not considered a skill, but rather 'a disposition to use experience, understanding and abilities to interact effectively within the world'.⁷ This holistic approach of understanding the mind-body connection and addressing the spectrum of all ages is not new to the profession, but we are clearly seeing a renewed emphasis on overall health and well-being for the

¹College of Health and Human Performance, University of Florida, Gainesville, Florida, USA

²Select Physical Therapy Scottsdale Sports Clinic, Scottsdale, Arizona, USA

³College of Rehabilitation Sciences, University of Manitoba, Winnipeg, Manitoba, Canada

Correspondence to E Paul Roetert, College of Health and Human Performance, University of Florida, Gainesville, FL, USA; eproetert@gmail.com

full lifespan.⁷ Increases in obesity and physical inactivity indicate that ‘getting people moving’ is critical to the overall health of each nation’s population. Physical literacy offers this holistic approach to enable active participation across the lifespan and sports medicine professionals can have a profound influence on its continued development (box 1).³

The development of physically literate individuals will require unprecedented collective action among organisations and sectors to achieve success. Also, for the construct of physical literacy to continue its growth, more research beyond the sectors of physical education and sport needs to be stimulated and ‘physically literate societies’ as indicated by Dudley *et al* need to articulate in their policies how physical literacy can be addressed.⁸ The healthcare and sports medicine sectors can play an integral role in promoting physical activity for a lifetime and help develop confident and competent movers of all ages and in all environments (land, air, water, snow, ice). More and more ‘weekend warriors’, not just professional athletes, are seeking advice from sports

medicine professionals to improve their movement skills and overall physical activity as well as for the treatment of injuries.⁶ By making it a priority for stakeholders, such as healthcare and medical professionals, and to embrace physical literacy principles into their programmes, curricula and certifications, we have the potential to support lifetime activities for all as well as to create safer and healthier communities.

Contributors EPR led the planning, conduct and reporting of the work, and the two coauthors contributed equally.

Funding This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent Not required.

Provenance and peer review Commissioned; externally peer reviewed.

© Article author(s) (or their employer(s) unless otherwise stated in the text of the article) 2018. All rights reserved. No commercial use is permitted unless otherwise expressly granted.



To cite Roetert EP, Ellenbecker TS, Kriellaars D. *Br J Sports Med* 2018;**52**:1291–1292.

Accepted 27 February 2018
Published Online First 13 April 2018

Br J Sports Med 2018;**52**:1291–1292.
doi:10.1136/bjsports-2017-098465

REFERENCES

- 1 Roetert EP, Kriellaars D, Ellenbecker TS, *et al*. Preparing students for a physically literate life. *J Phys Educ Recreat Dance* 2017;**88**:57–62.
- 2 Whitehead M. The concept of physical literacy. *Eur J Phys Educ Sport* 2001;**6**:127–38.
- 3 Roetert EP, MacDonald LC. Unpacking the physical literacy concept for K-12 physical education: what should we expect the learner to master? *J Sport Health Sci* 2015;**4**:108–12.
- 4 International Physical Literacy Association. Definition of physical literacy. 2016 <https://www.physical-literacy.org.uk/>
- 5 Cairney J, Bedard C, Dudley D, *et al*. Towards a physical literacy framework to guide the design, implementation and evaluation of early childhood movement-based interventions targeting cognitive development. *Ann Sports Med Res* 2016;**3**:1073.
- 6 Jayanthi N, Brenner J. Caring for the young athlete: past, present and future. *Br J Sports Med* 2017;**51**:141.
- 7 Whitehead M. Physical literacy. *J Phil Educ* 1990;**24**:3–14.
- 8 Dudley D, Cairney J, Wainwright N, *et al*. Critical considerations for physical literacy policy in public health, recreation, sport, and education agencies. *Quest* 2017;**69**:436–52.