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Invited Commentary

The Indivisible Triad: Why Kinesiologists Must Embrace the One Health Approach

Luca P. Ardigò[a]
[a]Department of Teacher Education, NLA University College, 0166 Oslo, Norway

One Health is often perceived as the domain of epidemiologists, veterinarians or environmental scientists. As a kinesiologist, I argue that this view is not only reductive but also overlooks a critical pillar of the triad: human movement and physical activity. Kinesiology, with its focus on human health, performance and well-being through movement, is intrinsically linked to the health of animals and the environment. Ignoring this connection undermines our ability to promote lasting health and prevents us from addressing the root causes of many modern health challenges.[1,2]

The COVID-19 pandemic was a stark reminder of this interdependence. When a virus spilt over from animals to humans, it didn't just cause a medical crisis; it triggered a kinesiological one. Gyms closed, sports events were cancelled and public spaces emptied. The very activities we promote to sustain health were suddenly restricted. This was not an isolated event; it was a symptom of a broader imbalance. Deforestation, wildlife trade and climate change increase the likelihood of zoonotic spillover. As kinesiologists, we must recognise that our work is directly affected by these dynamics. We cannot afford to be passive observers.

The environment in which physical activity takes place is equally critical. Consider the air quality during outdoor exercise. Recent research firmly links ambient air pollution to increased dementia risk.[3,4] The Lancet Commission on dementia prevention highlights this as a modifiable factor, emphasising the importance of considering environmental conditions when prescribing outdoor exercise.[5] This has direct implications for kinesiologists: prescribing outdoor exercise without considering air quality may inadvertently harm our clients. We must advocate for cleaner air and greener urban spaces, not as an aside, but as a core part of our professional responsibility.

Antimicrobial resistance is another growing concern. For athletes, even a simple skin infection can become harder to treat, highlighting how interconnected human, animal and environmental health truly are. In 2019 alone, antibiotic-resistant infections caused an estimated 1.27 million deaths worldwide. Kinesiologists and sports medicine professionals must promote hygiene, prudent antibiotic use and infection prevention strategies. This is not just a medical issue; it's a movement health issue.

Emerging research also highlights the role of environmental contaminants like microplastics. A 2025 study by Gross et al. demonstrated that microplastics can enhance antimicrobial resistance in bacteria such as *E. coli*.[6] These particles are pervasive, in water, soil and even the air, and athletes training outdoors may be at higher exposure risk. As kinesiologists, we must engage with this evidence and help develop safer training environments.

Practical Applications and a Call to Action

The One Health approach is not an abstract concept; it is a practical framework for action. Here's how kinesiologists can lead. Kinesiology education is a natural starting point. By weaving One Health concepts into curricula, students learn that exercise prescription involves not just intensity and duration, but also context, air quality, environmental risks and animal health. Kinesiology curricula should include modules on zoonotic diseases, environmental health and sustainable practices. Future professionals need to understand that prescribing exercise is not just about intensity and duration; it's also about context. Where does activity take place? What are the environmental risks? How does animal health influence human movement? These questions should be part of our professional dialogue. Whether in schools, public parks or sports facilities, kinesiologists should be vocal advocates for environments that support health. This includes promoting eco-friendly sports infrastructure, reducing plastic waste at events and ensuring training grounds are free from pollutants. We must collaborate with urban planners, environmental scientists and policymakers to create spaces that encourage safe physical activity for all. The skills of kinesiologists are urgently needed beyond traditional settings. Public health agencies, corporate wellness programs and environmental advocacy groups all benefit from our expertise in movement, prevention and health promotion. By positioning ourselves as essential players in the One Health workforce, we can open new career paths and amplify our impact. One Health is inherently collaborative. Kinesiologists should seek partnerships with veterinarians, ecologists, public health officials and climate scientists. Together, we can develop holistic strategies that address health at the human-animal-environment interface.

Conclusion

One Health is not a new idea. Many cultures have long understood that human health is woven into the health of the land and its creatures. What is new is the urgency. Climate change, biodiversity loss and globalised trade make the need for integration more pressing than ever.

For kinesiologists, embracing One Health is not a diversion; it is an evolution of our mission. We are the experts in human movement and movement does not happen in a vacuum. It happens in a world shared with animals, shaped by the environment and vulnerable to global threats. In my experience working with community sports programs, we've seen how

simple measures, like planting trees along running paths, can improve air quality and encourage participation. Small steps like this exemplify the One Health approach in action.

ORCID

Luca P. Ardigò ID http://orcid.org/0000-0001-7677-5070

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References

1. Gibbs EP. The evolution of One Health: a decade of progress and challenges for the future. *Vet Rec*. 2014;174(4):85-91. doi:10.1136/vr.g143
2. World Health Organization. *The one health approach and key recommendations of the quadripartite*. WHO: Geneva, Switzerland. 2023.
3. Fieldhouse R. Air pollution directly linked to increased dementia risk. *Nature*. 2025;645(8081):566-567. doi:10.1038/d41586-025-02844-9
4. Wilker EH, Osman M, Weisskopf MG. Ambient air pollution and clinical dementia: systematic review and meta-analysis. *BMJ*. 2023;381:e071620. Published 2023 Apr 5. doi:10.1136/bmj-2022-071620
5. Livingston G, Huntley J, Sommerlad A, et al. Dementia prevention, intervention, and care: 2020 report of the Lancet Commission. *Lancet*. 2020;396(10248):413-446. doi:10.1016/S0140-6736(20)30367-6
6. Gross N, Muhvich J, Ching C, et al. Effects of microplastic concentration, composition, and size on Escherichia coli biofilm-associated antimicrobial resistance. *Appl Environ Microbiol*. 2025;91(4):e0228224. doi:10.1128/aem.02282-24

Corresponding information:
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Correspondence to: Prof. Luca P. Ardigò Ph.D
University: Department of Teacher Education, NLA University College, 0166 Oslo, Norway
E-mail: luca.ardigo@nla.no