

Letter to editor

## Reply to Letter to Editor: Stereotypes of Athletes' Use of Performance Enhancing Products

### Dear Editor-in-Chief

We appreciate the letter writer's comments regarding our recently published manuscript (Kisaalita and Robinson, 2014). This pilot study investigated the motivations and beliefs driving performance enhancing product (PEP) use among competitive cyclists. Specifically, we explored attitudes towards banned and non-banned/legal PEPs using World-Anti-Doping Association (WADA) and Union Cycliste Internationale (UCI) criteria. While the author readily recognizes strengths in our methodology and important implications of our findings, he/she also purports that there are several key limitations in our study design. We would like to address the following criticisms: 1) concern regarding the "competitiveness" of the sample of cyclists that would limit the generalizability of the findings; and 2) concern that athletes in our sample may have used banned PEPs for reasons other than performance enhancement (e.g. recreationally).

The author's primary criticism is doubt/skepticism as to whether our sample of cyclists represents truly "competitive" athletes. His/her argument is based on the assumption that our recruitment methods – advertisements in bike shops, cycling races, and message boards – were more likely to attract "amateur cyclists who cycle leisurely" rather than competitive cyclists. While acknowledging some limitations in our recruitment methods, we respectfully disagree with the author's conclusion. First, it is important to note that our advertisements explicitly requested only competitive cyclists; this classification was reiterated in our informed consent form and throughout the online survey. Participants were asked to provide the number of years they had competed as a competitive cyclist, and no participant reporting less than a year's experience ( $M$  years = 9.16,  $SD$  = 8.08). Similar self-report methods have been used in other peer-reviewed studies of competitive cyclists (Smathers, Bembem & Bembem, 2009). I think we would agree with the author if we had claimed to have sampled ProTour professionals; that was not our intent. We do agree with the author that additional information (e.g., last competitive race, highest competitive level reached) would have improved the characterization of our sample. More importantly, we believe this disagreement reflects a broader issue – namely the inherent subjectivity of classifying competitive cyclists due to a paucity of established guidelines (Ansley and Cangle, 2009). Interestingly, the author questions the competitiveness of our sample but provides no criteria for characterizing a competitive cyclist. Although several different classification methods have been used to depict competitive cyclists (Bini et al., 2014; Gat and McWhirter, 1998; Heil, 2002; LaChausse, 2006) relatively few efforts have been made to develop standardized criteria

(De Pauw et al., 2013). We hope this discussion will help foster greater awareness of this issue.

The author highlighted a central point of the article – namely that there is much confusion among athletes as to which substances are banned vs. non-banned within the jurisdiction of their sports governing body. We also agree with the author's assertions that it is highly likely that many competitive cyclists use banned PEPs recreationally – i.e. not for purposes of performance enhancement. However, it is important to emphasize that, for the purpose of this study, our sample was explicitly asked if they used any banned or non-banned PEPs with the intent to enhance performance. In other words, while some of the PEPs listed may not have known efficacy for improving performance, performance enhancement was in fact the stated intention for use. We would also like to clarify a potential misunderstanding by the letter writer; PEPs like Viagra, marijuana, and EPO were perceived as banned by our sample, *not* non-banned. Examples of non-banned products included equipment modifications, altitude tents, electrolyte replacement products, vitamins, and EPO-NO.

In summary, we greatly appreciate the author's feedback and hope this dialogue will improve the rigor of subsequent research in this field. We are excited about this line of empirical inquiry and hope that future studies will continue examining PEPs use across different categorizations of athletic performance.

**Nkaku Kisaalita<sup>1,2</sup> and Michael E. Robinson<sup>1</sup>✉**

<sup>1</sup> Center for Pain Research and Behavioral Health, University of Florida, USA; <sup>2</sup> Medical College of Georgia/Charlie Norwood Veterans Affairs Psychology Residency, USA

### References

- Ansley, L. and Cangle, P. (2009) Determinants of "optimal" cadence during cycling. *European Journal of Sports Science* 9(2), 61-85.
- Bini, R.R., Hume, P.A., and Croft, J. (2014) Cyclists and triathletes have different body positions on the bicycle. *European Journal of Sports Science* 14(1), S109-S115.
- De Pauw, K. Roelands, B., Cheung, S.S., de Geus, B., Rietjens, G. and Meeusen, R. (2013) Guidelines to classify subject groups in sport-science research. *International Journal of Sports Physiology and Performance* 8(2), 111-122.
- Gat, I., and McWhirter, B.T. (1998) Personality characteristics of competitive and recreational cyclists. *Journal of Sport Behavior* 21(4), 408-421.
- Heil, D.P. (2002) Body mass scaling of frontal area in competitive cyclists not using aero-handlebars. *European Journal of Applied Physiology* 87, 520-528.
- Kisaalita, N.R. and Robinson, M.E. (2014) Attitudes and motivations of competitive cyclists regarding use of banned and legal performance enhancers. *Journal of Sports Science and Medicine* 13, 44-50.
- LaChausse, R.G. (2006) Motives of competitive and non-competitive cyclists. *Journal of Sport Behavior* 29(4), 304-314.

---

Smathers, A.M., Bemben, M.G. and Bemben, D.A. (2009) Bone density comparisons in male competitive road cyclists and untrained controls. *Medicine & Science in Sports and Exercise* **41**(2), 290-296.

✉ **Michael E. Robinson**

Center for Pain Research and Behavioral Health, University of Florida, USA

**E-mail:** merobin@ufl.edu