

COMMENTARY

Selection based on athletics: What price will the candidates pay?

Suzanne Fikrat-Wevers  | Karen M. Stegers-Jager  | Andrea M. Woltman

Institute of Medical Education Research Rotterdam, Erasmus MC University Medical Center Rotterdam, Rotterdam, The Netherlands

Correspondence

Andrea M. Woltman, Institute of Medical Education Research Rotterdam, Erasmus MC University Medical Center Rotterdam, Room Na2310, PO Box 2040, 3000 CA Rotterdam, The Netherlands.

Email: a.woltman@erasmusmc.nl

Is selecting prospective students based on their participation in athletics a reasonable decision? In their review published in this issue of *Medical Education*, Anderson et al. conclude that this may be the case, although the evidence is currently still limited.¹ The authors conducted a systematic review of 18 articles, and the vast majority of the studies found positive associations between participation in athletics and performance in medical school and during residency. Evidence was found for both objective measures of performance such as test scores and subjective outcomes, including burnout symptoms.

Although the results are promising, predictive validity is only one of many aspects that determine the quality of selection procedures that should be taken into account. According to broader validity frameworks, for selection tools and/or procedures to be considered to have merit, face validity, construct validity, cost-effectiveness and political validity should all be evaluated.^{2,3} Applicant acceptability—a component of political validity—seems particularly important in this case given that applicants' lives and careers are directly affected by selection policies. What would the ones who actually have to undergo the selection procedure think when they fill out their application form and come across an inquiry about their athletic achievements? And how does selection based on athletics impact those preparing to apply?

Applicant acceptability—a component of political validity—seems particularly important in this case.

We recently reported on applicant perceptions of commonly used selection methods in this journal.⁴ Although we did not directly examine applicant perceptions of participation in athletics as a selection method, we did include curriculum vitae (CV) as one of the methods in our multi-site study. Athletic performance was considered in the CV assessment of some of the programmes, and, thus, applicants sometimes referred to it in their comments. For instance, one applicant said: 'Not everyone has the time and opportunities to build a good CV. Many high school students and college students already study hard and work alongside school to earn some extra money. In addition, sports are also important but only top-class sports are looked at on the CV, such nonsense! Candidates who are 100 times more motivated but have no time or opportunity to create a good CV will all be rejected.'

When looking through the lens of the applicant, multiple concerns arise with respect to selecting students based on prior athletic participation and/or performance. One is pointed out by the applicant above and also recognised in the systematic review¹: Athletic participation can be a privilege and is not an option for all applicants. We argue that athletic participation can be considered a form of pre-selection, as it already entails selective elements based on financial resources, leisure time and, most importantly, physical ability. Anderson et al. noted that within the context of the studies in the review (the United States and Canada), selection based on athletic participation can enhance student diversity, as many college athletes come from underrepresented ethnic and socioeconomic backgrounds.¹ In the case of the United States, this may be related to the offering of athletic scholarships, which is much less common practice in other countries. In most countries, that is, selection based on participation in athletics may do more harm than good for student diversity. In fact, research suggests that selection based on extracurricular activities (including athletics) may cause an

adverse impact on applicants with an ethnic minority background and for those who do not apply for traditional pre-university education.⁵

Athletic participation can be considered a form of pre-selection, as it already entails selective elements.

Secondly, we wonder whether the relevance of participation in athletics to future job performance is clear to applicants. This is exemplified by a quote from an in-depth study we are currently conducting with selected applicants: ‘Athletics, I don’t think that has anything to do with the medical training. I don’t understand why that has been made such a big deal.’ Applicant perceptions of the relatedness between their area of study and their job pursuit are correlated with overall perceptions of fairness; they dislike selection methods that, in their opinion, distinguish candidates based on other skills than those that the methods are intended to assess.^{4,6} In this regard, it is noteworthy that Anderson et al. recognise that it is not the sport itself that predicts better performance but underlying skills such as teamwork, discipline and resiliency, although the specific skills have not been identified yet.¹ Is it justifiable to implement selection based on athletic participation before we know what those underlying skills actually are? Whatever they are, they will probably not be limited to athletics alone but can be demonstrated through other life experiences that may reflect the lived reality of a broader group of prospective students.

Is it justifiable to implement selection based on athletic participation before we know what those underlying skills actually are?

A third concern relates to the applicant’s well-being. Although the systematic review concludes that prior athletic participation is related to improved future well-being,¹ current research does not pay attention to the well-being of those preparing for selection. Applicants express concerns that a highly demanding selection procedure that requires much preparation can cause stress and reduced well-being amongst them.⁴ Gaming the system—shaping one’s behaviour to ‘fit’ the expectations of the selection committee—is reportedly widespread.^{7,8} As athletic participation is usually initiated long before application, the questions become ‘at what age do prospective

students feel a need to start preparing for their admission?’ and ‘what happens to predictive validity when motivation to participate in specific activities is extrinsically driven (i.e., to enter medical school)?’.^{9,10}

The questions become ‘at what age do prospective students feel a need to start preparing for their admission?’

Thus, before programmes implement participation in athletics as a selection method purely based on predictive validity, they should establish more broadly what the unintended consequences might be. Does including athletics have side effects such as negative perceptions or reduced well-being of prospective students? Does it safeguard equal opportunities? Are there other ways to assess the underlying skills that are less pre-selective by nature? As should be done for any selection method, institutions are responsible for answering such questions to decide whether it can be considered reasonable to include athletics in selection.

Before programmes implement participation in athletics as a selection method purely based on predictive validity, they should establish more broadly what the unintended consequences might be.

AUTHOR CONTRIBUTIONS

Suzanne Fikrat-Wevers: conceptualization, writing—original draft, writing—review and editing. **Karen Stegers-Jager:** conceptualization, writing—review and editing. **Andrea Woltman:** conceptualization, writing—review and editing.

ORCID

Suzanne Fikrat-Wevers  <https://orcid.org/0000-0001-8022-3746>

Karen M. Stegers-Jager  <https://orcid.org/0000-0003-2947-6099>

REFERENCES

1. Anderson KG, Lemos J, Pickell S, Stave C, Sgroi M. Athletes in medicine: a systematic review of performance of athletes in medicine. *Med Educ*. 2023. doi:[10.1111/MEDU.15033](https://doi.org/10.1111/MEDU.15033)
2. Cleland J, Dowell J, Mclachlan J, Nicholson S, Patterson F. Identifying best practice in the selection of medical students (literature review and interview survey). 2012.
3. Schreurs S. *Selection for Medical School: The Quest for Validity*. 2020. doi:[10.26481/DIS.20200320SS](https://doi.org/10.26481/DIS.20200320SS)
4. Fikrat-Wevers S, Stegers-Jager K, Groenier M, et al. Applicant perceptions of selection methods for health professions education: rationales and subgroup differences. *Med Educ*. 2022;57(2):170-185. doi:[10.1111/MEDU.14949](https://doi.org/10.1111/MEDU.14949)
5. Fikrat-Wevers S, Stegers-Jager KM, Afonso PM, et al. Selection tools and student diversity in health professions education: a multi-site study. *Adv Heal Sci Educ*. 2023;1-26. doi:[10.1007/S10459-022-10204-9/TABLES/9](https://doi.org/10.1007/S10459-022-10204-9/TABLES/9)
6. Niessen ASM, Meijer RR, Tendeiro JN. Applying organizational justice theory to admission into higher education: admission from a student perspective. *Int J Sel Assess*. 2017;25(1):72-84. doi:[10.1111/ijsa.12161](https://doi.org/10.1111/ijsa.12161)
7. Lin KY, Anspach RR, Crawford B, Parnami S, Fuhrel-Forbis A, De Vries RG. What must I do to succeed?: narratives from the US premedical experience. *Soc Sci Med*. 2014;119:98-105. doi:[10.1016/J.SOCSCIMED.2014.08.017](https://doi.org/10.1016/J.SOCSCIMED.2014.08.017)
8. White J, Brownell K, Lemay JF, Lockyer JM. "What do they want me to say?" The hidden curriculum at work in the medical school selection process: a qualitative study. *BMC Med Educ*. 2012;12(1):17. doi:[10.1186/1472-6920-12-17](https://doi.org/10.1186/1472-6920-12-17)
9. Lucieer SM, Stegers-Jager KM, Rikers RMJP, Themmen APN, NI L. Non-cognitive selected students do not outperform lottery-admitted students in the pre-clinical stage of medical school. *Adv Heal Sci Educ*. 2016;21(1):51-61. doi:[10.1007/s10459-015-9610-4](https://doi.org/10.1007/s10459-015-9610-4)
10. Urlings-Strop LC, Themmen APN, Stegers-Jager KM. The relationship between extracurricular activities assessed during selection and during medical school and performance. *Adv Heal Sci Educ*. 2017; 22(2):287-298. doi:[10.1007/S10459-016-9729-Y/FIGURES/2](https://doi.org/10.1007/S10459-016-9729-Y/FIGURES/2)

How to cite this article: Fikrat-Wevers S, Stegers-Jager KM, Woltman AM. Selection based on athletics: What price will the candidates pay? *Med Educ*. 2023;1-3. doi:[10.1111/medu.15115](https://doi.org/10.1111/medu.15115)