Make it REAL: Four simple points to increase clinical relevance in sport and exercise medicine research

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INTRODUCTION

Clinical sport and exercise medicine (SEM) research is a branch of "clinical research" – a term meant to cover all types of investigations that address questions on the treatment, prevention, diagnosis/screening, or prognosis of disease or enhancement and maintenance of health.[1] As such, clinical SEM research should be useful and inform evidence-based decision making. While this may seem intuitively correct, careful considerations about whether our research is relevant for others than ourselves is an important exercise we should do more of. In the last decade, different initiatives concerning patient-relevant outcomes[2] and partnering with patients[3] have increased attention towards addressing the relevance of clinical research from an end-user perspective In this editorial, and along those same lines, we point to 4 themes for consideration when planning clinical SEM research.

MAKE IT R*E*A*L*

Relevance of research question

A good research question is the basis for relevance in SEM research. The FINER criteria is a very helpful tool to achieve structure and relevance of a research question.[4] For example, the "I" in FINER stands for "Interesting". That is, getting the answer to the question intrigues investigators, peers, and community. A common mistake is to assume that other people will find the results interesting or relevant just because we as investigators do. Another means of assessing relevance of a research question is to forecast the level of interest in different outcome scenarios. That is, the research question should be interesting and relevant no matter what the results are.

End-user and stakeholder identification

Ensuring relevance implies identification of the stakeholders who are interested in the research question and find it important. End-users of our research are very important stakeholders - as are our peers - and their input can increase relevance immensely. End-user and stakeholders can be from various settings, including colleagues, clinicians, patients, department heads, policy makers and others. In manufacturing businesses, it is very common to utilize end-user input in early product development. For example, Choi[5] states: "*A critical component in the development of new products is the inclusion of input from future users*" and further: "*This input is invaluable in defining and understanding the technical/functional needs that the product must fulfill*." So, considering a research question and preliminary research protocol an early product, we can approach identified end-users to obtain their input and adopt our research accordingly to increase value for all.

Acknowledge and appraise end-user and stakeholder input

As an example, we may plan research to investigate whether an exercise intervention can modify a risk factor for a sports injury. Faced with this, an end-user – who might be a team coach or physician – might say: "*If I am to implement this intervention in the future, it needs to reduce the number of injuries – not just a surrogate for this outcome*". Based on such input (and other), we can then decide if our planned study can be changed to accommodate this input or not, given the available resources, infrastructure, study population etc. The scenario that we want to avoid is producing a banana (well conducted but irrelevant research) when the end-user wants an apple (some other well conducted but relevant research; 2-minute video on this topic here:[6].

Look again at research usefulness

As stated in the introduction, clinical SEM research should be useful. To get a feel for usefulness, it can be helpful to carefully reflect on some key issues[1]:

- Is the health problem we are addressing big or small?
- Have we systematically reviewed the literature for context placement/relevance of our study?
- Is our planned study large enough to potentially influence decision making?
- Does our study reflect “real life” for key stakeholders?
- Is our study a priority for patients and/or other stakeholders?

It is hard to imagine how these questions can be answered by ourselves sitting in our offices or labs thinking. We need to go out and talk to the people whose decisions we are trying to support or inform. In other words, what do our intended users need and what can we do to ensure that we meet those needs?

SUMMARY

Doing research is hard work and can take years to complete. Therefore, no one wants to spend years doing research that nobody cares about. The first part of any research should be thinking about who will use what we have at the end. By collaborating with end-users and other stakeholders in careful appraisals of planned research, the chances of success and wide uptake of results increase (Figure 1).

FIGURE LEGENDS

Figure 1: Four points that may help make our research REAL. Please see the text for elaboration.

ID=identification.

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