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 prevention, treatment, 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 to facilitate 'real world' implementation. Because the current research reward system values research quantity more than quality (publish or perish), it is understandable why we sometimes forget to slow down[2] and consider relevance for others than ourselves.

Recently, different initiatives concerning patient-relevant outcomes[3] and partnering with patients[4] have increased attention towards addressing the relevance of clinical research from an end-user perspective. This focus is also increasing in clinical SEM where involvement of end-users is part of tools to bridge the science–practice gap.[5] In this editorial, we focus on a few simple, yet important points, to obtain stakeholder involvement and end-user input to the research planning stages. The purpose is to increase research usefulness and relevance and, ultimately, influence decision making.

MAKE IT R*E*A*L*

Relevance of research question

A good research question is the basis for relevance. The list of FINER criteria is a helpful tool to achieve structure and relevance of a research question.[6] 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. One way of avoiding this is to have stakeholders involved in developing the research question.[5 6]

End-user and stakeholder identification

Ensuring relevance implies identification of the stakeholders who are involved in the topic and can aid in qualification of the research. End-users of our research are very important stakeholders—as are our peers—and their input can increase relevance. End-users and stakeholders can be colleagues, clinicians, patients, department heads, policy makers and others. In manufacturing businesses, it is common to use end-user input in early product development. For example, Choi[7] 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 preliminary research question an early product, we can approach end-users to obtain their input and adopt our research planning accordingly to increase value for all. For more information on establishing a group of stakeholders, see Verhagen *et al*.[5]

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 in the form of a preliminary research question, 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 a substitute for injury*'. Based on such input (and other), we can then decide if our planned research can be changed to accommodate this input, given the available resources, infrastructure, population and so on. 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 min video on this topic is available in ref [8]).

Look again at research usefulness

Once we have received input from stakeholders and have a preliminary research protocol, it is good to reflect on the questions below, as these are questions that granting bodies will likely ask when we submit a research proposal[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 world' conditions for key stakeholders?

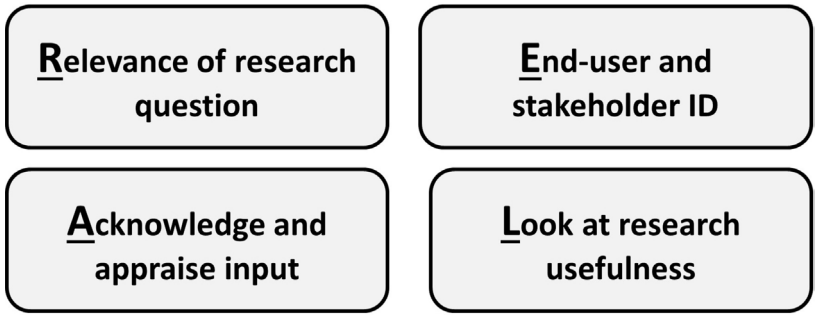

Figure 1 Four points that may help make our research REAL. Please see the text for elaboration. ID, identification.

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- Is our study a priority for patients and/or other stakeholders?

We may need to go back and consult with stakeholders again, as it is hard to imagine how these questions can be answered by ourselves. We need to go out and talk to the people whose decisions we are trying to inform. In other words, what are the needs of our intended users and what can we do to meet those needs?

SUMMARY

Doing research is hard work and can take years. Therefore, no one wants to spend years doing research nobody cares about. The first part of any research should be thinking about who will use our research end-product. 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).

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