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Planning for implementation and translation: seek first to understand the end-users' perspectives

A Donaldson, CF Finch

Translating research evidence into sustained improvements in population health outcomes is a current priority across many health research fields including sports medicine,[1] injury prevention[2] and physical activity promotion.[3] Both the 'traditional' approach of publishing sports injury research findings in peer-reviewed journals and hoping for the best, and the more sophisticated approach of developing and disseminating consensus statements and related sport safety guidelines have been relatively unsuccessful to date.

BEING STRATEGIC

The importance of taking a strategic and planned approach to the translation of evidence into practice has long been recognised in health promotion[4] yet has received very little attention in sports medicine or injury prevention research, though *BJSM* is aiming to change this.[1] The Intervention Mapping (IM) protocol[5] can guide the development and appropriate targeting of health promotion programmes and has recently been used to plan some promising sports injury prevention interventions.[2] The IM protocol advocates for specific action to ensure successful development and implementation of evidence- and theory-informed, context-specific interventions to maximise programme adoption, implementation and sustainability. There are seven IM protocol tasks involved in planning for adoption, implementation and sustainability — starting with identifying potential programme adopters and implementers and finishing with designing interventions for programme use, implementation and sustainability (table 1). These provide a framework for systematically planning both the initial implementation of newly developed interventions or programmes and the wider dissemination of interventions or programmes that have already been shown to be effective.

BEING SYSTEMATIC

The ecological systems and contexts in which interventions need to be implemented are an important concept in health promotion and broader injury prevention research.[6 7] However, they have only received relatively recent attention from sports medicine researchers.[2 8 9] Successful planning within an ecological context requires recognition that individual behaviour is a function of the interactions between people and their physical, social and political environments,[1] and that sustained behaviour change is unlikely if the environments in which people make health behaviour or safety decisions do not encourage and support the desired change.[2]

Management structures within sporting organisations could play a key role in facilitating the implementation of injury prevention interventions and safety programmes.[10] This is a key knowledge gap emphasised by the Reach, Effectiveness, Adoption, Implementation, Maintenance (RE-AIM) Sports Setting Matrix for sports-based interventions, which highlights the range of influences on the uptake of interventions delivered through sport (table 2).[9] As an analogy, within occupational health and safety, safety management systems are central to improving workers' health and safety.[11] These generally focus on organisational commitment and safety policy, the continuous improvement processes of planning; implementation; measurement and evaluation; and review and improvement. Training community sports administrators, for example, in a systematic approach towards managing the risks associated with participating in sport can lead to significant increases in the adoption of safety policies and practices and also facilitate the establishment of club infrastructure and processes that underpin a sustainable approach to safety management.[12] What is now needed is identification of the core components of safety management systems relevant to the different contexts of sport and to examine the management system capacity and structures within sporting organisations to facilitate the adoption, implementation and maintenance of evidence-based injury prevention interventions.

It is likely that the contexts with the greatest capacity to deliver improvements in sports safety are those at the organisational levels of ecological systems, such as schools; community clubs and associations; and state/provincial, national and international sports governing bodies.[8 9] It is clearly time to invest in understanding the systems and process that such organisations have in place to manage safety and enhance the translation of evidence into policy and practice, in conjunction with strategies aimed at individual behaviour change on the part of sports participants. Where this new knowledge identifies gaps, it is expected there will be many opportunities to develop new implementation strategies and to improve safety management systems for sport.

BEING CONTEXTUAL

Importantly, most opportunities to participate in sport are provided by

Table 1 The seven tasks of Intervention Mapping Step 5: planning programme* adoption, implementation and sustainability[5]

Task number	Task description
Task 1	Identify potential programme adopters and implementers
Task 2	Ensure the adoption and implementation planning group includes representation from potential programme users and gatekeepers
Task 3	State programme use outcomes and specify adoption, implementation and sustainability performance objectives
Task 4	Specify determinants of programme adoption, implementation and sustainability
Task 5	Create a matrix of change objectives for programme adoption, implementation and sustainability
Task 6	Select methods and practical applications for programme adoption, implementation and sustainability
Task 7	Design interventions for programme use, implementation and sustainability

*In the sports medicine and injury prevention context, a programme can include single interventions (such as protective equipment use or return-to-play guidelines) as well as more programmatic approaches (such as coach education or exercise training programmes).

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Table 2 The RE-AIM Sports Setting Matrix[9] for understanding the ecological context for interventions and programmes delivered through sport

	Level of assessment/intervention setting or target					
RE-AIM dimension	National Sporting Organisation	State/Provincial Sporting Organisation	Regional Association or League	Club*	Team†	Participant
Reach						
Effectiveness						
Adoption						
Implementation						
Maintenance						

*Includes administrators and club presidents.
†Includes coaches, parents and first aid providers.
RE-AIM, reach, effectiveness, adoption, implementation, maintenance.

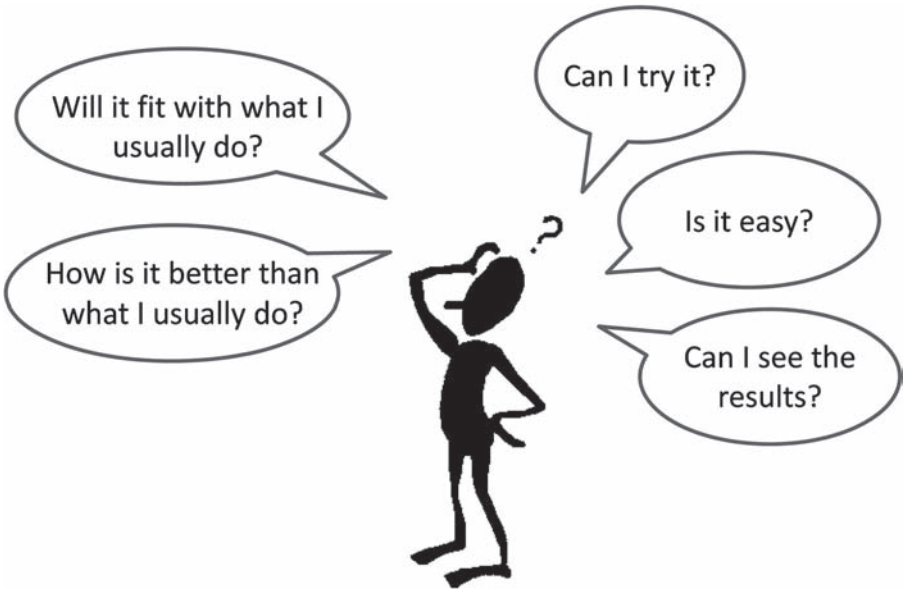

Figure 1 Influences on adoption and implementation of an innovation.

community sports organisations run by volunteer administrators and coaches. It is precisely these volunteers who are usually the intended end-users or implementers of safety policies and programmes. This presents many challenges across all levels of the ecological context for sports delivery, especially for those responsible for developing and disseminating evidence-informed safety policies and interventions. Community sports participants, volunteer administrators and coaches respond first and foremost to their own needs and the needs of those they are responsible for. They interpret and implement centrally or top–down developed sports policy within the context of their daily experience and local environment.[13 14] If sports injury prevention researchers really want to develop interventions that enough community level sports participants, coaches and administrators adopt, implement and maintain long enough to have a significant population level impact, then it is imperative that they invest in understanding what influences and drives safety action from the perspective of the end-user.

Ultimately, according to diffusion of innovations theory,[15] the rate of adoption of an innovation depends more on the end-users' subjective perception of the relative advantage, compatibility, complexity, trialability and observability of an innovation than it does on the objective evidence of the innovation's efficacy. This is summarised in figure 1.

This does not mean that we do not need evidence-based effective sports injury prevention interventions. Rather, we need a better understanding of how sports participants, coaches, teachers and administrators, as the real adopters and implementers, perceive and interpret sports injury prevention interventions within the context of the everyday world they operate in. The only way to ensure this is to engage and actively involve them in all stages of intervention development from needs assessment through to planning for implementation and conducting evaluation.[5] This would be consistent with Steven Covey's life principle #5 of 'seek first to understand, then to be understood'.[16]

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