An examination of concussion education programmes: a scoping review methodology

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ABSTRACT

Objectives The primary purpose was to review the literature on concussion education programmes. The secondary purpose was to inform knowledge translation strategies for concussion researchers and practitioners.

Design Research on concussion education programmes is relatively new. As a result, the current study implemented a scoping review methodology, which is a type of literary search used to provide a preliminary assessment of the size and scope of a body of literature, as well as identify strengths, weaknesses and gaps in the research.

Methods A five-stage process for conducting a scoping review was followed for this study: (a) identifying the research questions, (b) identifying relevant studies, (c) identifying the study selection criteria, (d) charting the data and (e) reporting the results.

Results Concussion education programmes have been developed and implemented with populations ranging in age from 9 to 49 years and have used interactive oral presentations, educational videos and computer-based learning programmes. Although the content of these programmes varied, the topics generally addressed salient aspects of concussion injury and recovery. Quantitative instruments have been the preferred methods for assessment.

Conclusions Education programmes aimed at improving participants' long-term concussion knowledge, behaviours and attitudes of concussions are needed. Researchers must consider using a knowledge translation framework to enhance concussion education programmes. The application of such a framework can lead to novel and interesting ways of disseminating information about concussive injury and recovery.

INTRODUCTION

Sports-related concussions affect athletes of all age and skill levels, as well as parents, family members, coaches and clinicians.[1 2] Concussions have a symptomatology that ranges from headaches, dizziness and nausea to irritability, anxiety and depression.[3] The severity of these symptoms is influenced by a number of factors such as age, gender and history with the injury.[3] The growing awareness surrounding the short-term and long-term consequences of concussions has concerned stakeholders in sport, and more recently, governments. In May 2014, American President Barack Obama held a summit on youth sport concussions at the White House where he convened leading experts to discuss the future of concussive injury and recovery. The president's decision to make concussions a public health issue is indicative of the growing awareness about the injury and its impact on public health, both inside and outside the sporting community. Additionally, concussion awareness has influenced legislative branches of American government to mandate concussion education in all 50 states.[4 5] Despite an ever-increasing body of research and public awareness about concussive injury and recovery, relatively little is known about the most effective ways to disseminate this information to knowledge users (ie, athletes, coaches, parents and clinicians).[3 6] Knowledge translation (KT) strategies could be the 'missing link' to improving the dissemination of concussion information to these knowledge users (ref. 7, p. 69).

KT is defined as "the dynamic and iterative process that includes synthesis, dissemination, exchange and ethically-sound application of knowledge…".[8] KT aims to bridge the knowledge gap between the scientific community and knowledge users.[9] The knowledge to action cycle is one framework to examine the knowledge gap.[10] The knowledge to action cycle comprised two sections, whereby (a) the knowledge funnel consists of refining information from basic research to the creation of a knowledge tool/product, and (b) the action cycle represents the process of implementing and evaluating the knowledge tool/product. This framework has been suggested as a potential approach to examine the KT of concussion research.[6] One of the most recommended and widely implemented concussion KT strategies to date is concussion education.

It is imperative that concussion education strategies are adapted to the specific audience/local context (eg, student-athletes vs physicians), that barriers and facilitators of knowledge use are assessed and the proper intervention strategy is chosen, implemented and evaluated.[8] Unfortunately, these elements have not been consistently used when developing concussion education strategies. For example, concussion education has been dominated by passive educational strategies, such as printed materials and handouts (eg, CDC's *Heads Up* concussion initiative)[11–14] and concussion-related websites.[3 6 15] Printed materials and handouts have allowed for concussion information to be disseminated to people inside and outside the sporting community;[11] however, some have questioned whether passive education could lead to behaviour change when used as a standalone strategy.[16] Additionally, concussion-related websites often contain medical jargon,[15] making the content difficult to understand for non-medical knowledge users.[9] Taken together, the current concussion education strategies may not have been properly adapted to the local context (eg, websites) and that the type of strategy (eg, handouts) may not be most effective.

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