

Introduction to IRSEP Special Issue: Research Review Methodologies in Sport and Exercise

Psychology

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On behalf of the Associate Editors and the Editorial Board, we are excited to introduce an IRSEP Special Issue on Research Review Methodologies in Sport and Exercise Psychology. We dedicate this special issue to Prof Aidan Moran. Aidan's research, writings, and books are hugely influential, and he was a tremendous influence in bringing modern cognitive psychology concepts to sport psychology models and theories, especially in the areas of imagery and attention. The conceptual contribution of his work, his insistence on critical consideration of all theoretical perspectives, his methodological rigour, and the clarity of his writing will ensure that his work remains relevant for many years to come. It is no coincidence that these scientific principles are foundational to the Aims and Scope of the journal he founded in 2006, IRSEP.

The purpose of this special issue was to build upon the success of IRSEP through providing a substantial resource on research review methodologies to further develop the quality, variety, and rigour of review manuscripts in sport and exercise psychology. The special issue comprises 12 articles across research review methodologies/topics. Each article in the special issue is comprised of two main parts, addressing methods/topic and practice:

Part 1: A critical review of the methodology/topic to include strengths and weaknesses, common themes, a summary of the current state of knowledge, and future methodological/topic advances in the specific area, drawing on literature within and outside of sport and exercise psychology.

Part 2: Top guidelines to ensure best practice in sport and exercise psychology.

We encourage readers, and authors looking to submit manuscripts to IRSEP (and other journals), to use articles in this special issue as a resource for enhancing the quality and rigour of review practices and reporting. Many common omissions or errors in review

practices and reporting could be avoided through following guidance provided in these articles. Across the special issue, we include articles that address both current approaches and new, evolving methodologies from other fields of research that could be applied to sport and exercise psychology.

In considering articles for the special issue, we began by evaluating how to define a good review article. First, evidence is found in the attempts to find the literature (Methods). Second, evidence is found in how the literature was analysed (Analysis). Finally, evidence is found in how the results of the analysis were interpreted (Critical Appraisal). To this end, the special issue begins with an article by **Katie Gunnell and her colleagues** entitled “**Systematic Review Methods.**” Katie and her colleagues describe aspects of the systematic review processes including best standards for planning and conducting a systematic review, coherence, literature searches, article screening, data extraction, reporting guidelines, open science practices, publication ethics, and disseminating results. Guidelines include using best practice standards and open science practices, ensuring the research question is clear, involving an information specialist in the creation of the search strategy, using reference management software, adhere to reporting guidelines and publication ethics, developing a knowledge translation plan, and involving knowledge users in the review process and dissemination plans.

Geoff Bates, in his article entitled “**Complex interventions,**” focuses on the analysis of studies reporting complex interventions. Analysis describes the process of examining data extracted from studies to answer the research question(s). Following a broad discussion of the analysis of interventions in a systematic review and an overview of common methods, Geoff focuses on approaches to examine the complexity of interventions, a growing area of focus for systematic review methods. Guidelines include engaging with logic models, extracting detailed information from interventions, using tools to code intervention content and design,

engaging with analysis methods designed to explore implementation and complexity, and presenting data in interesting and clear ways to maximise reader engagement. **David Tod and his colleagues**, in their article entitled “**Critical Appraisal**,” address how to interpret the results of analyses in light of the quality of the primary research. Reporting a study’s trustworthiness or methodological rigour contributes to how confident people can be in the findings of a set of studies. The article considers differences between quality and bias, the value of total quality scores, the advantages and disadvantages of standardised checklists, the relevance of the experimental hierarchy of evidence, the differences between critical appraisal tools and reporting standards, and the challenges involved in appraising qualitative research. Guidelines are provided to assist authors with conducting critical appraisals of both quantitative and qualitative reviews.

We progress in the special issue to address current, new, and evolving methodologies including umbrella reviews (systematic review of reviews), scoping reviews and rapid reviews, meta-analysis, handling effect size dependency in meta-analysis, and citation network analysis. To this end, **Guy Faulkner and his colleagues** in their article entitled “**Umbrella reviews (systematic review of reviews)**,” describe methods to search for, and identify, multiple systematic reviews and meta-analyses to compare and contrast findings of individual reviews and provide an overall picture of findings for a particular research question. Guidelines include detailing a clear scope for the review, identifying synthesis literature through strategic searches, considering overlap of the literature, choosing and applying review quality tools, and handling synthesis and reporting.

The prevalence of scoping reviews and rapid reviews is increasing, and **Catherine Sabiston and her colleagues** offer insights into the similarities and differences in these approaches in their manuscript entitled “**Scoping and rapid reviews**.” Both scoping and rapid reviews are used to synthesize the literature, and also to describe and assess conceptual,

theoretical, and methodological trends, identify gaps in research and practice, and inform future sport and exercise psychology research and practice directions. Guidelines are offered through an eight-step framework: (1) create and consult with a stakeholder group; (2) identify the research question(s); (3) identify relevant studies; (4) create and register a protocol; (5) select and screen studies; (6) chart the data; (7) collate, summarize, and report the results; and, (8) re-consult stakeholders and identify implications.

Martin Hagger, in his article entitled “**Meta-analysis**,” provides an overview of the basic principles of meta-analysis, a tool that allows researchers to quantitatively synthesize research on effects and the factors that influence them across the available literature. Guidelines are provided surrounding the effective assessment of heterogeneity, testing for moderators, dealing with dependency, evaluating publication bias and tracking down ‘fugitive literature,’ assessing sample size, testing theories, and open science and transparency practices. In a complementary article, **Daniel Gucciardi and colleagues**, in their article entitled “**Handling effect size dependency in meta-analysis**,” explain dependency among effects for meta-analytical investigations. Prior to an application with real-world data, guidelines are provided through seven reflective questions for authors to consider: (1) will there be a need to accommodate non-independence in effect sizes? (2) What is the effect size of interest? (3) How do I calculate effect sizes from primary studies? (4) How do I structure my data file for a meta-analysis that accounts for non-independence in the data? (5) What statistical program should I use to conduct a meta-analysis that handles dependency among effects? (6) How do I interpret the results of a three-level meta-analysis? And (7) what factors might explain the heterogeneity among effects?

Colin McLaren and Mark Bruner consider how knowledge is conveyed through citation practices in their article entitled “**Citation network analysis**.” They provide an overview of the method, including a brief review of network theory, existing research in the

field of sport and exercise psychology, and some of the important limitations to consider. Guidelines are provided that relate to the importance of an appropriate research question, the timing of conducting a citation network analysis, a systematic search, reporting descriptive statistics, creating a citation network, using visualization tools, incorporating basic network metrics (centrality and density), and pre-registering a review with an open repository.

We progress in the special issue to address current, new, and evolving qualitative approaches including grounded theory, meta-study, realist review, and meta-ethnography. To this end, **Nicholas Holt and colleagues** in their article entitled “**Grounded theory**,” describe and assess the use of grounded theory methodology in sport psychology over the past 11 years. Guidelines are provided that emphasise the need for authors to adopt existing basic principles including clarity in the variant of grounded theory methodology selected. Further, the authors discuss ways in which researchers can advance the conceptual sophistication of methodologically sound grounded theory studies through conceptualizing theory and embracing theoretical sensitivity.

Noora Ronkainen and colleagues in their article entitled “**Meta-study**” consider how to analyse the content and the process of knowledge production in a body of qualitative research using the meta-study method. Four steps involved in a meta-study are detailed (meta-data-analysis, meta-method, meta-theory, and meta-synthesis), together with observations over the diverse applications of meta-study in the literature. Guidelines include deciding on the appropriateness of selecting meta-study as an approach, adhering to original guidelines and recent updates in the field, advice on each of the four steps of conducting a meta-study, and forming critical and constructive reflections on the literature.

Rebecca Hunter and colleagues in their article entitled “**Realist review**,” explain how through a realist review authors can look for theories as to why a programme worked, who it worked for, and in what context it worked. Whilst realist reviews are increasing in

popularity, there is still limited application of this approach across the sport and exercise sciences. The authors provide an overview of the approach and present guidelines for conducting and reporting a realist review. Six stages were identified: (1) Identity the review question, (2) search for primary studies, (3) selection and appraisal, (4) extracting the data, (5) synthesising the data, and (6) disseminating the findings.

We conclude the special issue with an article by **Andrew Soundy and Nicola Heneghan** entitled “**Meta-ethnography.**” The authors explain that a central component of this type of review is on the interpretivist synthesis and on the development of theory. Seven stages to meta-ethnography are critically detailed: (1) Getting started, (2) deciding what is relevant, (3) reading studies, (4) deciding how studies are related, (5) translating studies, (6) synthesising translations, and (7) the expression of the synthesis. Guidelines are provided for meta-ethnography reviews and for a social constructivist meta-ethnography reviews.

A note of thanks

We thank all the authors for their contributions to this special issue, and also IRSEP’s growing pool of anonymous manuscript reviewers for their help in processing and evaluating manuscripts. Further, we would like to sincerely express our gratitude to all the team at Taylor & Francis for their outstanding support, assistance, and commitment to IRSEP and to the production of this special issue.

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