Study Explanation: Critically appraised topics are brief systematic reviews of the most current and best available evidence to answer a focused clinical question related to the recognition, rehabilitation, and prevention of sport-related injuries. While large-scale systematic reviews and meta-analyses involve an exhaustive search of the literature, CATs involve similar elements, but on a smaller scale (typically 3-8 sources of peer-reviewed evidence).

PROPOSED FORMAT FOR CRITICALLY APPRAISED TOPICS (CATS)

Focused Clinical Question: Typically, the PICO (Patient or Population of interest, Intervention, Comparison or Control group, Outcome of interest) format is used to develop the clinical question.

However, not all questions need to follow this exact format.

For more information on the PICO format, see the guide from the Center of Evidence-Based Medicine (http://www.cebm.net/index.aspx?o=1036).

Data Sources: Identify how relevant research papers were identified – search strategy (electronic databases, hand search, etc), databases, timeframe of search, key words, and search limits.

Study Selection: Describe the criteria for selection - the processes through which studies were selected for inclusion for further analysis.

Data Extraction: Describe the specific outcomes that were to be gathered from the included studies.

Summary Measures: Describe the main summary measures or analyses to be used (calculation of effect sizes, odds ratios, mean differences, etc). In other words, describe how the extracted data were organized & summarized, the statistical procedures applied, and the results (e.g., effect sizes, odds ratios and 95% confidence intervals) of the analysis.

Evidence Appraisal: Describe the method used to appraise the quality of the evidence included, addressing issues related to the internal (the ability to determine cause and effect) and external (the ability to generalize) validity of the evidence.

EXAMPLES of commonly used critical appraisal tools

Appraisal of Intervention effectiveness studies– the PEDro scale based on the CONSORT statement
Appraisal of Diagnostic Accuracy of a clinical test studies – The QUADAS scale based on the STARD statement.
Appraisal of Observational studies for sport-related conditions – the STROBE statement and associated checklists

Search Results: Present the overall results of the number of studies screened vs. those included

Data Synthesis: For all outcomes considered, present a summary of data for each comparison, group differences, intervention, etc. For these results point estimates and measures of variability should be presented (for example, effect sizes and confidence intervals)

Evidence Quality: Present the overall results of the Evidence Appraisal.

Conclusions: Summarize the main findings of the study. Emphasize the "answer" to the clinical question. Interpret these findings within the context of the strengths / weaknesses / biases based on the evidence appraisal.

Word Count: 600