

## Case Studies in *IJSP*

Early in our deliberations on the format of *IJSP* the editorial board agreed on the inclusion of the case study as one type of submission. The case-study approach is well established in biomedical and sports-medicine journals, but it is not as common in the sports-science and sports-performance field. We see the case study as an informative and interesting means of reporting observational findings or experimental data of interest to *IJSP* readers. We welcome case studies that shed light on elite and world-class athletes, and their performances, that are seldom reported in the literature. A well-written case study should enhance our understanding of an issue in sports physiology and performance. A case study should illustrate a new issue, add clarity to an existing problem, or investigate a contemporary issue of sports physiology within its real-life context. The advantages of the case-study method are its applicability to contemporary research and clinical practice and rapid accessibility to the scientific community. Like conference abstracts, a case study is probably as difficult to write as a full paper, given the high priority for conciseness and meeting word-count limits.

In broad terms the case study should follow the traditional scientific format of an introduction, methods, results, discussion, and conclusion. We are, however, amenable to alternative or innovative approaches. Case studies submitted to *IJSP* should include a short abstract of a few lines, given that readers invariably scan this part first to determine their interest in the rest of the report. The issue of statistical analysis is often raised in relation to case studies involving a single subject or situation. Critics of the case-study approach argue that study of a small number of cases or observations limits the ability to establish the reliability and generalization of findings. Depending on the scope of the data, it might not always be possible to undertake the sort of descriptive and inferential analysis usually employed in full investigative articles. Authors could also interpret their data in light of established reference ranges for dependent measures or use estimates of typical error (reliability) to determine whether observed changes or differences are real or simply related to noise in the measurement.

The design and presentation of case-study reports should include consideration of the issues of construct, internal, and external validity. Construct validity requires the researcher to use appropriate tests for the physiological or performance measure(s) being studied. Internal validity requires demonstration of associative or causal relationships between measures and a well-handled discussion that draws together convergent lines of inquiry. The researcher should ensure that a logical sequence of arguments and evidence is clearly established. External validity reflects whether or not findings are generalizable beyond the immediate case or cases. Within-case examination of independent and dependent measures, coupled with appropriate citation of the existing literature, helps ensure external validity.

The *IJSP* submission guidelines outline the details for case-study submissions: a report describing a small-scale or single-case study of physiological and/or performance aspects of a highly trained athlete, team, event, or competition, limited to 800 words, 2 tables or figures, and 6 references. We look forward to your case-study submissions.

*David Pyne, Editor*