News & Comment: Research Resources

Impact Factors of Journals in Sport and Exercise Science

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A journal's impact factor is the number of times the average recent article in the journal has been mentioned (cited) in other recent articles. The impact factor is therefore an objective measure of influence of journals in a discipline. The four journals with the highest impact factors in sport and exercise science are Exercise and Immunology Reviews (impact factor 2.9), American Journal of Sports Medicine (2.3), Medicine and Science in Sports and Exercise (2.1), and Journal of Applied Physiology (2.1). All other journals in this discipline have impact factors of 1.5 or less. Researchers concerned about their career development should take impact factors into account before submitting an article for publication.

KEYWORDS: citation, promotion, publication

The Institute for Scientific Information (ISI) publishes an annual summary of indices related to citations in scientific periodicals. The *impact factor* is probably the most important of these indices. ISI defines the impact factor as "the average number of current citations to articles the journal published in the previous two years" (ISI, 2000). To calculate the current impact factor of a journal, ISI counted the articles published in the journal in 1998 and 1999, counted the number of times those articles were cited in all other articles published before March 2000, then divided the number of citations by the number of articles. In simple terms, an impact factor of 2.0 for a journal means that the average recent article in the journal has been mentioned in 2.0 other recent articles.

Frequent mention of an article in other articles implies that the article is influential within its discipline. The impact factor represents the average influence of a journal's articles, so it is an objective measure of the influence of the journal and probably also a good index of overall quality of its articles. It is apparently for this reason that journal impact factors have become a consideration in the assessment of a researcher's publications for the purpose of appointment or promotion. Researchers concerned about their career development should therefore take impact factors into account before they submit their work for publication.

Table 1 shows a list of the impact factors of most journals that publish articles in exercise and sport science. The list of journal titles came from the <u>Kinesiology</u> <u>Forum</u>, where each title is linked to instructions for authors. I edited the list before inviting subscribers on the Sportscience mailing list to suggest other journal titles. I then added the available impact factors from the ISI report. I have also put the factors and titles into an Excel spreadsheet and added columns identifying the subdisciplines for each journal. <u>Click here</u> to download this list, then sort it by a subdiscipline and impact factor.

The list in Table 1 includes Nature, Science, and several other high-impact multidisciplinary journals. Such journals will consider exercise or sport research articles of exceptional originality, topicality, or relevance to the wider scientific community. For a recent example, see Lasne and de Ceaurriz (2000). Publication of an article in these journals enhances the careers of the researchers and improves the standing of exercise and sport science as a discipline.

Be cautious when comparing impact factors of journals in disciplines that differ in overall publication activity. Disciplines with higher rates of publication have more journals, so for purely statistical reasons these disciplines have a wider range in impact factors. The range then widens as researchers submit their best work to the best journals and cite articles only in the best journals. In the active disciplines of genetics, biochemistry, and immunology, some journals have impact factors that exceed 10, whereas impact factors of journals that publish articles predominantly in exercise and sport science are currently all less than 3.0. It may be wrong to conclude that the average quality of research in exercise and sport science is inferior to that in disciplines with more extreme impact factors, or that the typical variation in quality is wider among researchers in disciplines with a higher total research output.

Table 1. Impact factors of journals in exercise and sport science, including key multidisciplinary journals. Journals without an impact factor are not in ISI's database. <u>Download</u> this list as an Excel spreadsheet.

ACSM's Health and Fitness Journal

- 1.4 Acta Physiologica Scandinavica
- 1.3 Adapted Physical Activity Quarterly
- 2.0 American Heart Journal
- 2.4 American Journal of Cardiology
- 4.0 American Journal of Clinical Nutrition
- 4.0 American Journal of Epidemiology American Journal of Health Promotion
- 0.8 American Journal of Human Biology
- 2.1 American Journal of Hypertension
- 0.9 American Journal of Physical Medicine and Rehabilitation
- 3.0 American Journal of Physiology: Endocrinology and Metabolism
- 2.7 American Journal of Physiology: Heart and Circulatory Physiology
- 3.0 American Journal of Public Health
- 5.5 American Journal of Respiratory and Critical Care Medicine
- 2.3 American Journal of Sports Medicine American Psychologist
- 1.1 Annals of Nutrition and Metabolism
- 1.0 Annals of the New York Academy of Sciences
- 5.5 Annual Review of Nutrition
- 20 Annual Review of Physiology
- 0.4 Applied Ergonomics
- 0.8 Applied Psychological Measurement Applied Psychology
- 1.1 Archives of Physical Medicine and Rehabilitation
- 1.6 Arthritis Care and Research
- 0.5 Aviation Space and Environmental Medicine Behavior Research Methods, Instruments, and Computers
- 2.7 Behavioral Neuroscience

- 3.2 Biochemical and Biophysical Research Communications
- 0.9 British Journal of Sports Medicine
- 1.3 Canadian Journal of Applied Physiology
- 1.5 Canadian Journal of Physiology and Pharmacology
- 3.1 Cardiovascular Research
- 2.4 Chest
- 9.9 Circulation
- 8.3 Circulation Research
- 0.8 Clinical Biomechanics Clinical Exercise Physiology
- 1.1 Clinical Journal of Sport Medicine
- 1.1 Clinical Nutrition
- 0.7 Clinical Physiology
- 2.3 Clinical Science Clinical Science and Clinical Biochemistry
- 2.0 Clinics in Chest Medicine
- 0.9 Clinics in Sports Medicine
- 9.0 Diabetes
- 1.1 Diabetes and Metabolism
- 0.7 Diabetes Nutrition and Metabolism
- 2.4 Diabetes--Metabolism Research and Reviews
- 2.2 Diabetic Medicine
- 5.2 Diabetologia
- 0.6 Educational and Psychological Measurement
- 0.7 Ergonomics
- European Journal of Applied Physiology
 European Journal of Nutrition
 European Journal of Physical Medicine and Rehabilitation
- 2.4 European Journal of Physiology (Pflugers Archive)
- European Physical Education Review 2.3 European Respiratory Journal European Sports History Review
- 2.9 Exercise and Immunology Reviews Exercise and Sport Sciences Reviews
- 1.2 Experimental Physiology
- 0.7 Human Movement Science
- 4.9 Hypertension
- 2.0 International Journal of Epidemiology
- 3.2 International Journal of Obesity
- 1.5 International Journal of Sport Nutrition and Exercise Metabolism
- 1.0 International Journal of Sports Medicine International Journal of the History of Sport International Review for the Sociology of Sport
- 11 JAMA--Journal of the American Medical Association
- 1.2 Japanese Journal of Physiology Journal of Aging and Physical Activity
- 7.4 Journal of American College of Cardiology
- 1.6 Journal of American College of Nutrition

1.9	Journal of American Dietetic Association
	Journal of Applied Behavioral Science
0.9	Journal of Applied Biomechanics
2.1	Journal of Applied Physiology
	Journal of Applied Sport Psychology
0.4	Journal of Athletic Training
7.7	Journal of Biological Chemistry
1.5	Journal of Biomechanics
	Journal of Bodywork and Movement Therapies
	Journal of Cardiopulmonary Rehabilitation
0.8	Journal of Clinical Endocrinology and Metabolism
2.1	Journal of Clinical Epidemiology
11	Journal of Clinical Investigation
0.5	Journal of Clinical Psychology
	Journal of Comparative Physical Education and Sport
1.7	Journal of Epidemiology and Community Health
	Journal of Exercise Physiology
6.4	Journal of General Physiology
	Journal of Human Performance in Extreme Environments
3.0	Journal of Hypertension
2.2	Journal of Nutrition
1.5	Journal of Occupational and Environmental Medicine
	Journal of Physical Education, Recreation, and Dance
4.6	Journal of Physiology
	Journal of Science and Medicine in Sport
0.4	Journal of Social and Clinical Psychology
	Journal of Sport Behavior
1.5	Journal of Sport and Exercise Psychology
0.1	Journal of Sport Management
0.8	Journal of Sport Rehabilitation
0.1	Journal of Sports Chiropractic and Rehabilitation
0.5	Journal of Sports Medicine and Physical Fitness
1.1	Journal of Sports Sciences
0.02	Journal of Sports Traumatology
0.6	Journal of Strength and Conditioning Research
	Journal of Swimming Research
0.7	Journal of Teaching in Physical Education
1.0	Journal of the Philosophy of Sport
10	Lancet
	Leisure Sciences
1.0	Leisure Studies
2.0	Lipids
	Measurement in Physical Education and Exercise Science
0.1	Medicina dello Sport
2.1	Medicine and Science in Sports and Exercise
	Medicine and Sport Science
1.9	Metabolism Clinical and Experimental
1.9	Muscle and Nerve

- 29 Nature
- 27 Nature Medicine
- 29 New England Journal of Medicine
- 1.7 Nutrition
- 0.6 Nutrition Metabolism and Cardiovascular Diseases
- 3.4 Obesity Research
- 0.7 Pediatric Exercise Science Pediatric Physical Therapy
- 0.3 Perceptual and Motor Skills
- 1.2 Physical Therapy Physical Therapy in Sport Physical Therapy Reviews
- 0.3 Physician and Sportsmedicine
- 24 Physiological Reviews
- 1.6 Preventive Medicine
- 10 Proceedings of the National Academy of Sciences
- 7.4 Progress in Lipid Research Psychology of Sport and Exercise
- 1.2 Public Health Reports
- 1.1 Research Quarterly for Exercise and Sport
- 1.3 Scandinavian Journal of Clinical and Laboratory Investigation
- 0.7 Scandinavian Journal of Medicine and Science in Sports
- 25 Science
- 0.2 Science and Sports
- 0.5 Sociology of Sport Journal Sport History Review
- 1.0 Sport Psychologist Sport, Education, and Society
- 1.5 Sports Medicine Sports Medicine Training and Rehabilitation Strength and Conditioning
- 0.01 Strength and Conditioning Journal
- 3.4 Thorax
- 16 Trends in Biochemical Science
- 3.1 Trends in Endocrinology and Metabolism

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