

## EDITORIAL

# DEVELOPMENT AND BIBLIOGRAPHY OF JOURNAL OF REHABILITATION MEDICINE

Journal of Rehabilitation Medicine (JRM) was founded in 1968 under the name Scandinavian Journal of Rehabilitation Medicine (SJRM) by the late Professor Olle Höök. Its name was changed in 2001 to Journal of Rehabilitation Medicine, partly because it started to make formal connections with international and regional organisations. At present we are the only official journal of the International Society of Physical and Rehabilitation Medicine (ISPRM) (since 2006), the European Board of Physical and Rehabilitation Medicine (EBPRM) (which in 2003 became the first organisation to which we were officially connected) and the European Academy of Rehabilitation Medicine (EARM) (since 2006). JRM is also published in association with the European Society of Physical and Rehabilitation Medicine (ESPRM) since 2009, and the Canadian Society of Physical Medicine and Rehabilitation (CAPM&R) and the Asia Oceania Society of Physical and Rehabilitation Medicine (AOSPRM) since 2010. We are very pleased with these connections and are trying to fulfil the expectations associated with being an international journal. We have contacts in all these organisations and endeavour to meet with them regularly. Our Associate Editors come from seven countries and three continents. Our Editorial Board comprises 44 members from 23 different countries. In total, 360 reviewers from different parts of the world were active during 2009. It may be of interest to note that a majority of reviewers (57%) were men, but a majority of authors (60%) female.

It is also of interest to report that many of the authors are MDs, often publishing with other professionals. Of the articles published during 2009, 73% had at least one MD as an author. MD was the only profession in 14% of articles, whereas no MD was among the authors in 27% of the articles. It is promising for the field of physical and rehabilitation medicine that MDs are active as researchers and authors, as the concern has been raised that, not without reason, the interest of MDs for engaging in research, and their opportunities to do so, are declining. At the same time, it is of value to note that research and publishing are often multidisciplinary, which also reflects the clinical situation in physical and rehabilitation medicine. Though other professions are represented on our Editorial Board, MDs remain the predominant group, accounting for 35 of its 44 members.

JRM/SJRM, has a rather long publishing history and has incrementally expanded in size from four issues of 48 pages per year to, at present, ten ordinary issues of 96 pages per year, plus a number of supplements (usually containing abstracts from congresses) and issues on specific topics (special issues). It has been relatively frequently cited and certain articles published in the 1970s and 1980s have very high numbers of citations,

with the classic methodological paper by Fugl-Meyer et al. (1) describing motor assessment systems in patients with hemiplegia presently boasting a total of 911 citations. Another highly cited methodological article by Berg et al. (2) concerning the balance scale has 250 citations. It was therefore unfortunate that the interesting and informative article by Shadgan et al. published in 2010 (3), which described the 100 most-cited articles in rehabilitation, overlooked the fact that JRM had previously been published under the name SJRM. No fewer than 10 articles published in SJRM and JRM during the years 1975 to 2002 should have been listed among the 100 most-cited articles. The aforementioned article by Fugl-Meyer et al. (1) should have been ranked second. Table I lists all articles published in SJRM and JRM with 100 or more citations up to now. This information further demonstrates that the citation rate for a journal is dependent to a large extent on a limited number of well-cited articles, especially in the long-term. Citation rates and download frequencies should primarily be regarded as indicators of general interest and, for citation rates, suitability for further publications. They do not really grade the scientific quality and genuine importance of an article or journal. Thus, valuable contributions in a fairly small area may not, due to the limited number of articles in that area, be cited so often, whereas methodological and review articles may be cited rather more frequently.

The calculation of impact factors over only a 2-year period, as has become the common practice, has limitations with the respect to the interest in articles in a journal. Other measures of articles' and journals' impact and interest have started to be used, important ones being the 5-year impact factor, which may be of special relevance for clinical journals, and cited half-time. JRM has had a 2-year impact factor slightly below or above 2 for the last 4 years and a 5-year impact factor above 3. Table II shows the data for 2009. JRM has also, together with Archives of Physical Medicine and Rehabilitation, been one of the top two highest ranked general clinical rehabilitation medicine journals, although it has been overtaken this year by the more specialised journal Neurorehabilitation and Neural Repair. JRM's cited half-time is not especially long, perhaps as a consequence of its name change.

In discussing interest in specific articles published in recent years it is interesting to look at the 10 most-cited articles published in JRM during 2007 and 2008. The four most cited of which (16–51 citations) belong to a Special issue on ICF – "A unifying model for the conceptualization and development of human functioning and rehabilitation research" – while another is a separate report on the same topic. Thus, this issue has evidently raised considerable interest. Two other highly cited

Table I. Articles published in *Scandinavian Journal of Rehabilitation Medicine* and *Journal of Rehabilitation Medicine*, which up to now have been cited more than 100 times

No.	Article	Citations <i>n</i>
1.	Fugl-Meyer AR, Jaasko L, Leyman I, et al. Post-Stroke Hemiplegic Patient. 1. Method for Evaluation of Physical Performance. <i>Scand J Rehabil Med</i> 1975; 7: 13–31.	911
2.	Hamilton BB, Laughlin JA, Fiedler RC, et al. Interrater Reliability of the 7-Level Functional Independence Measure (FIM). <i>Scand J Rehabil Med</i> 1994; 26: 115–119.	279
3.	Berg K, Wooddauphinee S, Williams JI. The Balance Scale - Reliability Assessment With Elderly Residents and Patients with an Acute Stroke. <i>Scand J Rehabil Med</i> 1995; 27: 27–36.	251
4.	Wade DT, Wood VA, Heller A, et al. Walking after Stroke - Measurement and Recovery over the 1st 3 Months. <i>Scand J Rehabil Med</i> 1987; 19: 25–30.	203
5.	Biering-Sorensen F. A Prospective-Study of Low-Back-Pain in a General-Population. 1. Occurrence, Recurrence and Etiology. <i>Scand J Rehabil Med</i> 1983; 15: 71–79.	177
6.	Grimby G, Broberg C, Krotkiewska I, et al. Muscle-Fiber Composition in Patients with Traumatic Cord Lesion. <i>Scand J Rehabil Med</i> 1976; 8: 37–42.	153
7.	Cieza A, Brockow T, Ewert T, et al. Linking Health-Status Measurements to the International Classification of Functioning, Disability And Health. <i>J Rehabil Med</i> 2002; 34: 205–210.	152
8.	Balague F, Dutoit G, Waldburger M. Low-Back Pain in Schoolchildren. <i>Scand J Rehabil Med</i> 1988; 20: 175–179.	145
9.	Theorell T, Harms-Ringdahl K, Ahlberg-Hulten G, et al. Psychosocial Job Factors and Symptoms from the Locomotor System - A Multicausal Analysis. <i>Scand J Rehabil Med</i> 1991; 23: 165–173.	144
10.	Knutsson E, Martensson A. Dynamic Motor Capacity in Spastic Paresis and its Relation to Prime Mover Dysfunction, Spastic Reflexes and Antagonist Co-Activation. <i>Scand J Rehabil Med</i> 1980; 12: 93–106.	144
11.	Cieza A, Geyh S, Chatterji S, et al. ICF Linking Rules: An Update Based on Lessons Learned. <i>J Rehabil Med</i> 2005; 37: 212–218.	113
12.	Troussier B, Davoine P, Degaudemaris R, et al. Back Pain in School-Children. A Study Among 1178 Pupils. <i>Scand J Rehabil Med</i> 1994; 26: 143–146.	108
13.	Aniansson A, Rundgren A, Sperling L. Evaluation of Functional-Capacity in Activities of Daily Living in 70-Year-Old Men and Women. <i>Scand J Rehabil Med</i> 1980; 12: 145–154.	107
14.	Nichols PIR, Norman PA, Ennis JR. Wheelchair Users Shoulder - Shoulder Pain in Patients with Spinal-Cord Lesions. <i>Scand J Rehabil Med</i> 1979; 11: 29–32.	106
15.	Magora A. Investigation of Relation Between Low Back Pain and Occupation. 5. Psychological Aspects. <i>Scand J Rehabil Med</i> 1973; 5: 191–196.	106
16.	Aniansson A, Grimby G, Rundgren A. Isometric and Isokinetic Quadriceps Muscle Strength in 70-Year-Old Men and Women. <i>Scand J Rehabil Med</i> 1980; 12: 161–168.	105
17.	Ekdahl C, Jarnlo GB, Andersson SI. Standing Balance in Healthy-Subjects - Evaluation of a Quantitative Test Battery on a Force Platform. <i>Scand J Rehabil Med</i> 1989; 21: 187–195.	104
18.	Dehlin O, Hedenrud B, Horal J. Back Symptoms In Nursing Aides in a Geriatric Hospital - Interview Study with Special Reference to Incidence of Low-Back Symptoms. <i>Scand J Rehabil Med</i> 1976; 8: 47–53.	101
19.	Magora A. Investigation of Relation Between Low Back Pain and Occupation – 4. Physical Requirements – Bending, Rotation, Reaching and Sudden Maximal Effort. <i>Scand J Rehabil Med</i> 1973; 5: 186–190.	100

Table II. Impact factors (IF), number of published articles and cited half time for 2009-year report for journals in rehabilitation medicine

Journal	2 year IF	5 year IF	Published articles <i>n</i>	Cited half-life years
Neurorehab Neural Repair	5.398	4.836	104	2.9
Arch Phys Med Rehab	2.184	2.761	271	8.7
J Rehabil Med	1.882	3.027	162	5.0
Clin Rehabil	1.767	2.546	107	6.1
Am J Phys Med Rehab	1.556	2.014	124	7.3
Disabil Rehabil	1.555	2.056	261	5.4

articles are review papers. Thus, it seems to take longer for original papers to be cited as frequently, further indicating the limited value of the 2-year impact factor. Another measure of the interest in specific publications is the download frequency. This naturally provides a different type of information to the citation rate and its usefulness for describing how widely a publication is read is uncertain. The most downloaded articles in the 1-year period beginning June 1, 2009 are listed in Table III. Supplements with abstracts top the list – which also includes a special issue on robotics – and they may naturally be accessed through the specific desire to obtain one or more of the many abstracts and papers they contain. Among the other publications with high download rates are, perhaps not unexpectedly, several review papers, which demonstrates the

Table III. Number of downloads during the period June 1, 2009 to June 1, 2010 of articles published in *Journal of Rehabilitation Medicine*

Downloads <i>n</i>	Article
1. 30838	Abstracts of the 16 <sup>th</sup> European Congress of Physical and Rehabilitation Medicine, 2008 in Brugge, Belgium. <i>J Rehabil Med</i> 2008; Suppl 47.
2. 30325	Abstracts of the 2 <sup>nd</sup> Asian Oceania Conference of Physical and Rehabilitation Medicine, 2010, in Taipei, Taiwan. <i>J Rehabil Med</i> 2010; Suppl 48.
3. 22959	Abstracts of the Asian Oceania Conference of Physical and Rehabilitation Medicine 2008, Nanjing, China. <i>J Rehabil Med</i> 2008; Suppl 46.
4. 19324	Kromer TO, Tautenhahn UG, de Bie RA, Staal JB, Bastiaenen CHG. Effects of physiotherapy in patients with shoulder impingement syndrome: A systematic review of the literature. <i>J Rehabil Med</i> 2009; 41: 870–880.
5. 12024	Lucca LF, Enrico Castelli E, Sannita WG. Special Issue: The application of robotics in the functional motor recovery of the paretic upper limb. <i>J Rehabil Med</i> 2009; 41: 949–1020.
6. 11159	French B, Thomas L, Leathley M, Sutton C, McAdam J, Forster A, et al. Does repetitive task training improve functional activity after stroke? A Cochrane systematic review and meta-analysis. <i>J Rehabil Med</i> 2010; 42: 9–15.
7. 7788	Bohannon RW. Muscle strength and muscle training after stroke. <i>J Rehabil Med</i> 2007; 39: 14–20.
8. 6659	Lund H, Weile U, Christensen R, Rostock B, Downey A, Bartels EM, et al. A randomized controlled trial of aquatic and land-based exercise in patients with knee osteoarthritis. <i>J Rehabil Med</i> 2009; 40: 137–144.
9. 6531	Paci M. Physiotherapy based on the Bobath concept for adults with post-stroke hemiplegia: A review of effectiveness studies. <i>J Rehabil Med</i> 2003; 35: 2–7.
10. 6490	Negrini S, Zaina F, Romano M, Negrini A, Parzini S. Specific exercises reduce brace prescription in adolescent idiopathic scoliosis: A prospective controlled cohort study with worst-case analysis. <i>J Rehabil Med</i> 2008; 40: 451–455.

strong interest in this type of article. However, two original reports also appear among the 10 top articles.

Finally, we wish to report that we recently launched a new online system to assist authors during the submission process and to enable them to track their manuscript during its evaluation. This new system will also help reviewers in their work and we hope it will be widely used and appreciated.

JRM favors open access to the maximum degree that is feasible and economically viable. At present, all articles are open access after 6 months after publication, in line with the requirements of a number of international and local research grant committees. Review papers, certain special reports, all letters to the Editor, and statement papers are immediately made available via open access. It is also possible, for a fee, to

obtain immediate open access for specific articles. We hope that open access will increase the accessibility of research information and maybe, as a result, citation and download rates.

#### REFERENCES

1. Fugl-Meyer AR, Jaasko L, Leyman I, Olsson S, Steglind S. Post-stroke hemiplegic patients. I. Method for evaluation of physical performance. *Scand J Rehabil Med* 1975; 7: 13–31.
2. Berg K, Wood-Dauphine S, Williams JJ. The balance scale – reliability assessment with elderly residents and patient with an acute stroke. *Scand J Rehabil Med* 1995; 27: 27–36.
3. Shadgan B, Roig M, HajGhanbari B, Reid WD. Top-cited articles in rehabilitation. *Arch Phys Med Rehabil* 2010; 9: 806–815.

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