

# Citation Analysis of PHYSICAL THERAPY

## A Special Communication

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To obtain information relevant to practice, physical therapists rely on a number of different sources, including contacts with students and colleagues, demonstrations, ward rounds, clinics, journals and other printed materials, discussions, in-service training, study groups, and formal instructional courses.<sup>1</sup> Although physical therapists, like some human service professionals,<sup>2-5</sup> may prefer and rely more on non-written sources of information than on publications,<sup>1</sup> journals remain an extremely important source of information for practicing clinicians. Contributing to the importance of journals are their relative availability to physical therapists,<sup>1</sup> their reliability and accuracy in comparison with personal experience and opinions,<sup>6</sup> and their value as a primary medium for information communication.

Professionals who realize the importance of journals to the communication of technical information and who are interested in such fields as mathematics, physics, botany, chemistry, engineering, veterinary medicine, physiology, agriculture, pharmacology, and pathology have conducted citation analyses to identify relevant "core journals."<sup>7-11</sup> These citation analyses, which assess the frequency with which specific journals are cited in the scientific periodical literature, were performed to assist librarians, authors, practitioners, and others in identifying important journals for acquisition, publication, and reference. Although analyses can be conducted us-

ing a large number of source journals, "a good approximation" can be determined by starting with a journal or set of journals relevant to a particular field.<sup>12</sup>

Because periodicals are useful to physical therapy practitioners in their practice<sup>13</sup> and because we were unable to locate a list of core journals for our profession, we decided to generate such a list. We used the reference list of each article, editorial, and commentary in

each monthly issue of PHYSICAL THERAPY from June 1980 through May 1984 to document the frequency with which various journals were cited.

### JOURNALS CITED IN PHYSICAL THERAPY

Our analysis revealed that 6,177 references were cited in these four years of PHYSICAL THERAPY issues. Of these ci-

**TABLE**  
**Journals Cited 10 or More Times in PHYSICAL THERAPY (June 1980-May 1984)**

Journal	Number of Times Cited	Journal	Number of Times Cited
<i>Phys Ther</i>	591	<i>Surg Gynecol Obstet</i>	24
<i>Arch Phys Med Rehabil</i>	260	<i>Rheumatology and Rehabilitation</i>	23
<i>J Physiol (Lond)</i>	144	<i>Diabetes</i>	22
<i>J Bone Joint Surg [Am]</i>	124	<i>Percept Mot Skills</i>	22
<i>Acta Physiol Scand</i>	89	<i>Spine</i>	22
<i>Clin Orthop</i>	89	<i>Pflugers Arch</i>	21
<i>J Appl Physiol: Respirat Environ Exercise Physiol</i>	84	<i>Research Quarterly for Exercise and Sport</i>	20
<i>Am J Phys Med</i>	83	<i>J Biomech</i>	19
<i>J Neurol Neurosurg Psychiatry</i>	72	<i>Orthop Clin North Am</i>	19
<i>Brain Res</i>	69	<i>Pain</i>	19
<i>Med Sci Sports Exerc</i>	69	<i>Am J Surg</i>	17
<i>Am Rev Respir Dis</i>	63	<i>J Allied Health</i>	17
<i>Scand J Rehabil Med</i>	60	<i>J Med Educ</i>	17
<i>Physiotherapy</i>	51	<i>J Pediatr</i>	17
<i>Am J Occup Ther</i>	50	<i>J Bone Joint Surg [Br]</i>	16
<i>J Neurophysiol</i>	47	<i>Ann NY Acad Sci</i>	16
<i>Lancet</i>	45	<i>J Neurosurg</i>	15
<i>Dev Med Child Neurol</i>	43	<i>Physiotherapy Canada</i>	15
<i>Exp Neurol</i>	40	<i>J Anat</i>	14
<i>JAMA</i>	39	<i>Ann Surg</i>	13
<i>Brain</i>	35	<i>J Gerontol</i>	13
<i>Neurology</i>	35	<i>Child Dev</i>	12
<i>Am J Physiol</i>	29	<i>Fed Proc</i>	12
<i>Br Med J [Prac Obs]</i>	28	<i>Age Ageing</i>	11
<i>J Comp Neurol</i>	28	<i>Exerc Sport Sci Rev</i>	11
<i>Muscle Nerve</i>	28	<i>Geriatrics</i>	11
<i>N Engl J Med</i>	28	<i>Am J Anat</i>	10
<i>Am J Sports Med</i>	27	<i>Ann Neurol</i>	10
<i>Arch Neurol</i>	27	<i>Eur J Applied Physiol</i>	10
<i>Chest</i>	27	<i>Exp Brain Res</i>	10
<i>Pediatrics</i>	27	<i>J Am Geriatr Soc</i>	10
<i>Nature</i>	25	<i>J Clin Invest</i>	10
<i>Acta Orthop Scand</i>	24	<i>South Med J</i>	10
<i>Anat Rec</i>	24		

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tations, 4,417 (71.5%) were of journals and 1,970 (28.5%) were of other sources, including books, monographs, theses, and papers presented at meetings. A total of 676 different journals were cited. All journals that were cited 10 or more times (67) are reported in the Table. Forty-one journals were cited 20 or more times and 22 journals were cited 30 or more times. Over 40% of the references cited were from 15 journals (ie, less than 4% of the journals cited). PHYSICAL THERAPY was cited most frequently (13.4% of all journal references). *Archives of Physical Medicine and Rehabilitation (Chicago)* was the next most frequently cited journal. *Physiotherapy and Physiotherapy Canada* were the only two professional physical therapy journals other than PHYSICAL THERAPY cited more than 10 times.

## DISCUSSION

The list of journals that were cited most frequently by authors in PHYSICAL THERAPY (Table) may be useful to librarians, authors, or clinicians who are interested in knowing which journals may be most relevant to our profession. Since generating the list, we have used it to expedite our selection of the journals that we will review weekly for articles that may be relevant to practice and appropriate for our staff members' review.

The list should not be construed as exhaustive or completely representative. It was compiled from a single journal of physical therapy, albeit the most widely circulated physical therapy journal<sup>14</sup> and the only physical therapy journal listed by *Science Citation Index*.<sup>7</sup> The list reflects resources that were considered important by certain authors, who may use different sources or have a different view of relevance than clinicians. The list includes the titles of journals cited in special issues of PHYSICAL THERAPY. These issues, which are considered useful by the majority (98.7%) of the PHYSICAL THERAPY readership,<sup>15</sup> also contain a large number of references to basic science journals, such as the *Journal of Physiology (London)*. Some physical therapists may question the relevance of such journals.

## CONCLUSIONS

Citation analysis has been used to identify journals that are relevant to various professions. We have analyzed the frequency with which different journals were cited in PHYSICAL THERAPY over a four-year period and have compiled a list of journals that were cited 10 or more times. This list may be useful to individuals who are interested in an approximation of the journals that may be most relevant to physical therapy.

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