

COVERAGE BY FOUR INFORMATION SERVICES OF THE CORE JOURNALS OF REHABILITATION AND RELATED TOPICS

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ABSTRACT. In this study, three serials databases were used to identify core journals in rehabilitation and related areas. Simple strategies were used to search SERLINE (Serials Online, National Library of Medicine), Ulrich's International Periodicals Directory and SACHET (British Library serials database). Coverage of the journals identified by four secondary information services was then studied. These were Medline, Excerpta Medica, CINAHL (Cumulative Index to Nursing and Allied Health) and CATS (Current Awareness Topics Services, British Library). The results confirmed and extended the findings of earlier work: the number of core journals in rehabilitation is very large and their coverage by information services is very selective. Of the services studied here, CATS seemed to be most comprehensive for the journals identified.

Key words: databases, bibliographic, periodicals, information services.

The use of secondary bibliographic sources is an important aid in current awareness of the journal literature. One of a series of papers on research in physical medicine and rehabilitation discussed information resources (4). While a valuable summary of such resources with respect to rehabilitation this discussion seems not to be fully comprehensive in certain respects. Though these authors note that the coverage of the most widely used bibliographic database in medicine, Medline, is far from complete with respect to the literature of rehabilitation, the limitation in coverage of even the best resources seems not to be widely appreciated, as Roberts has observed (7). It is probable that the coverage by such services of the very wide range of journal literature of interest to rehabilitation professionals is especially selective and disperse and this may even be true of the key journals of rehabilitation. If so, the difficulties of the complex task of maintaining a wide awareness of current literature will be considerably enhanced. It is desire-

able therefore that the true state of affairs regarding the number of rehabilitation journals and their coverage by secondary sources be established.

The question of the identification of journals relevant to rehabilitation and related areas has been addressed in several recent studies (1, 2, 3). In particular, Bohannon and Roberts (3) used three secondary sources to identify journals of importance to rehabilitation professionals. They found that the five journals cited most frequently (15 times or more) in the indexes studied were: Archives of Physical Medicine and Rehabilitation, American Journal of Physical Medicine and Rehabilitation, Journal of Rehabilitation Research and Development, International Disability Studies, and Scandinavian Journal of Rehabilitation Medicine. While this may be considered unsurprising since these journals are well known, Bohannon and Roberts did note variation in the range of journals included in the three secondary sources and that none of these sources could be regarded as comprehensive in coverage. In these studies, citation counting was used to identify journals though two of them did not specifically focus on rehabilitation journals, though concerned with related areas. The relatively flexible use of the word rehabilitation and the lack of a precise and universally accepted definition may pose specific problems for the literature of the field.

The purpose of the article is twofold: firstly, to identify key journals in rehabilitation and related areas included in three serials databases and, secondly, to compare the coverage of these titles by four secondary bibliographic sources. The listing of titles identified would facilitate the aim of forming an estimate of the proportion of this key material covered by secondary services.

In this study the identification of key rehabilitation journals was attempted by utilisation of databases of serials titles. There are several serials databases which include material relevant to rehabilitation. The use for

this purpose does raise a methodological problem in some cases due to varying practices in the classification by subject of the titles. In some cases no such classification is attempted by the database producer. Nevertheless, an initial unsystematic enquiry had suggested that the location of titles in serials databases by the use of a limited number of unquestionably relevant words or expressions in titles, could be illuminating.

METHODS

The three serials databases used were SERLINE, the serial file of the National Library of Medicine (NLM), Ulrich's International Periodicals Directory (Ulrich) and SACHET, the serials file of the British Library Document Supply Centre (BLDSC). SERLINE consists of records of approximately 75,000 serial titles in biomedical subjects. About 22,000 of these are currently received by the NLM and about 3,000 of these are currently indexed for Index Medicus and Medline. Ulrich's International Periodicals Directory is produced by the R. R. Bowker Company (New York) and is available in both hardcopy and online versions. One of the best known of the commercial serials directories it is multidisciplinary in scope and contains about 146,000 records. SACHET consists of approximately 120,000 records about 56,000 of which are currently received at BLDSC. All subject areas are considered in scope.

Some comments have already been made concerning the question of identifying core journals in rehabilitation and related topics. In the absence of consistent and appropriate definitions and indexing or classification a simple technique was used for the purposes of this study. This embodied the principle of identifying appropriate words or expressions in the journal titles. Each of the serials databases was searched online for each of the following in journal titles:

- (a) The word: rehabilitation
- (b) The word: physiotherapy, or the expression: physical therapy
- (c) The expression: occupational therapy
- (d) Any of the words: handicap or handicapped or disability or disabled.

The lists of titles retrieved from each serials database were compared and a composite list of titles for each of these areas was produced. As the interest in this study was in current journals in medical rehabilitation, editing of the lists was necessary. This however was strictly limited to excluding certain types of publication. The full list of types excluded is shown in Table I.

Every attempt was made to validate the currency of titles, a task of some difficulty since the demise of serial titles may not be apparent for some time after its occurrence. About six titles in total seemed to be still current in the absence of absolute certainty. These were included in the final figures.

The serials titles lists of four secondary bibliographic services were then examined for the inclusion of the identified titles. The sources were Index Medicus/Medline (IM), Excerpta Medica/Embase (EM), Rehabilitation Index/CATS database (CATS) and Cumulative Index to Nursing and Allied Health (CINAHL). IM and EM are well known as two of the largest services in biomedical journal literature; CINAHL dates from 1983 and has specialised in nursing and

Table I. *Types of publication excluded from the composite journal lists*

Conference proceedings
Directories
Handbooks
Legal and related publication, e.g. rehabilitation of criminals (considered out of scope)
Magazines and other popular kinds of publications (containing material not peer reviewed)
Monograph Series
Newsletters
Newspapers
Non-English titles
Non-medical material, e.g. land rehabilitation
Non-journal material of other types
Publication Series
Reports and Annual Reports
Secondary sources, i.e. Index and Abstract publications
State Programs (United States)
Statistics – publications containing statistical material
Surveys

allied health literature. CATS may be less well known; it is produced at the British Library Document Supply Centre by the Medical Information Service (MIS) and until late 1990 was available to the public only as a series of "Index" publications (of which Rehabilitation Index is one) or as searches run for customers by MIS staff. It is now available on-line through the Karolinska Institute (MIC-KIBIC) and DATASTAR (as AMED, Allied and Alternative Medicine). It dates from late 1985 and specialises in complementary medicine and allied health.

Table II. *Coverage by Secondary Information Services of Core Journals in Rehabilitation*

Group covered	Total journals by secondary services	Number of journals			
		IM	EM	CN	CATS
Rehabilitation	55	8	11	1	28
				10s	
Physiotherapy	20	1	7	3	15
				3s	
Occupational therapy	11	1	2	3	9
				4s	5s
Disability/Handicap	29	1	2	0	8
Total number of different titles (see note (ii))	111	11	19	7	61
			4s	17s	

Notes: (i) figures followed by s denote journals indicated as covered selectively by the respective secondary services;

(ii) four titles appear in 2 lists.

IM = Index Medicus/Medline

EM = Excerpta Medica/Embase

CN = Cumulative Index to Nursing and Allied Health

CATS = Current Awareness Topics Services (including Rehabilitation Index)

Table III. Coverage of Journals by more than one secondary service

Group	Services covered (titles)			Total
	All 4	Any 3	Any 2	
Rehabilitation	5	2	9	30
Physiotherapy	1	4	3	15
Occupational Therapy	—	6	3	9
Disability/Handicap	—	1	1	8

Note: Total titles is the total number of titles covered by all four services (counting duplicate coverage once only).

Coverage data have been tabulated for purposes of comparison.

RESULTS

A total of 111 different journals appear in the final lists. About half of these (55) appear in the "rehabilitation" category, 29 in the "disability/handicap" group, 20 in the "physiotherapy" group and 11 in "occupational therapy". Four titles appear in two lists. The complete lists are given in the appendix. The comparative data for the secondary services are given in Table II. In the case of EM and CINAHL some journals are designated selective, meaning not all articles from a journal are taken for the service. Where this is the case, figures are shown for journals taken comprehensively and those taken selectively. Table III shows the extent of the overlap in coverage by the secondary services i.e. the number of titles in each group covered by all the services, any three of them and any two. Finally, the total number of different titles covered by all the services is shown.

DISCUSSION

Some consequences of the methodology of this study deserve comment. Firstly, that whilst a considerable number of journals have been identified the journal lists produced are not necessarily comprehensive even for core journals. There may be relevant core journals the titles of which do not contain the words or expressions used to identify journals. On the other hand, subject to the definition of "journal", probably the majority have been identified. This technique was adopted to avoid the problems of assessing journals retrieved on a wider basis as relevant, or otherwise, in terms of subject matter. While it seems clear that the journals retrieved will be relevant there has been no

control in terms of quality or level. Some of the titles may be of too low a level, e.g. not containing peer reviewed articles, to merit inclusion in some current awareness bibliographies. This is the second qualifying comment related to methodology.

Pertaining to this question of the quality of material it sometimes seems to be assumed that inclusion in major bibliographic databases is an arbiter of quality; for example, that if a medical journal is not included in Index Medicus/Medline it is not worthy of consideration. This kind of viewpoint has sometimes been specifically stated or implied as for example in the assertion that the whole of science may be covered by about 1,000 core journals (5). If the implication is that journals outside this set are of little or no consequence then the collection policies and usage patterns of major libraries throughout the world seem to contradict such views. The professionals qualified in a particular field may be more reliable and authoritative guides to the worth of the literature of those fields. If, as is probably the case in rehabilitation, the knowledge and use of journals is restricted this may be due to reliance on secondary services too limited in their coverage. Inspection of some rehabilitation journals not covered by such services supports at the very least the possibility that the relationship between quality of content and inclusion in such services is not simple. This contention, while perhaps subjective to some extent, is based upon observable parameters like the length, organisation, number of references and peer review of articles in such journals.

To return to the qualifying comments related to methodology, there is of course a considerable amount of material relevant to rehabilitation published in journals not having the words or expressions used in this study in their titles. This material has been excluded from the scope of the study only for the practical reason mentioned earlier, the difficulty of judging relevance. It is not of course out of scope in any other sense. Finally, there are various meanings or uses of the word "rehabilitation". Some of the variants (e.g. offender and land rehabilitation) were excluded as shown in Table I. No account however has been taken of any variation within the medical field.

It is recognised that there are valuable journals pertinent to the areas studied which are in languages other than English. The restriction to English language material was a pragmatic one. As the serials databases used present information and results in different ways the task of producing consolidated

journal lists was complex. Also, the method of locating titles was based on the use of key words or phrases, as previously discussed. In view of these two factors it seemed inadvisable at this stage to attempt to include non-English language journals. This in no way implies that such journals may not be equally valuable to professionals in the fields studied. The limitation may be considered a deficiency of the study. An extension to include all languages would doubtless be fruitful.

It should also be noted that new titles will not be included in the journal lists if, at the time of the study, there had been insufficient times to process the information by the serials database producers. Therefore, neither these nor any journal lists can be final. They do however indicate the wealth of material available.

A comparison of the results of this study with that of Bohannon and Roberts (3) suggests that methodological aspects are of significance. The secondary sources studied there gave 170, 389 and 161 different journals respectively. For each source titles cited fifteen or more times were listed; the respective numbers of such titles were 31, 32 and 30. Considerable differences between the contents of the lists were noted. Assimilating these lists gives a total of 74 different journals. Of these 23 fall into the "rehabilitation" group, two into the "disability/handicap" group, five into the "physical therapy" group, as listed in this study. While Bohannon and Roberts (3) were concentrating specifically on rehabilitation, it nevertheless, seems remarkable how many additional titles have been identified in this study. The differences between the results of the studies are further illustrated by the inclusion by Bohannon and Roberts (3) of 43 titles not identified in this study for the reasons already discussed.

Comparison with the lists of journals produced by Davis and Findley (4) reveals a similar problem. These authors list a total of 89 different titles, a considerable number of which are not listed in this study, for the reasons already discussed. However, of these titles only 36 fall into the "rehabilitation" category used in this study, compared with 64 listed here. (Davis and Findley include a few titles no longer current.)

Some general conclusions may be drawn. The number of core journals in rehabilitation seems to be larger than citation patterns may indicate. Research methodology influences, perhaps substantially, the results of bibliographic studies – at least, in this area. Rehabilitation professionals who wish to maintain a wide current awareness of relevant literature may find

the task more difficult than may be supposed. This is due partly to the quantity of material and partly to selective coverage by information services.

Regarding the coverage of these journals by secondary information services the data seem to support the assertion made earlier that coverage is selective. In fact, the very limited coverage of these journals by these major international services is remarkable. Due to the methodology of this study it is likely that a quantity of key material is published in journals not retrieved by this study. It is possible therefore that these services cover a rather higher proportion of the total rehabilitation literature than these results may imply. Also some of the titles may be of a lower level than these services consider as in scope.

Nevertheless, the titles retrieved must constitute a major part of the rehabilitation literature and coverage is, with the exception of CATS poor. Further, the "total titles" data in table 3 indicates that very little material not covered by CATS in any group is covered elsewhere. Finally, it is apparent that while CATS is not fully comprehensive it is superior in its coverage of this material.

REFERENCES

1. Bohannon, R.: Core Journals of Physiotherapy. *Physiother Pract* 3: 126–8, 1987.
2. Bohannon, R. & Tiberio, D.: Physiotherapy Literature in Medical Indexes: how comprehensive is index coverage of journals cited frequently by five physiotherapy journals? *Physiother Pract* 5: 201–5, 1989.
3. Bohannon, R. & Roberts, D.: Core Journals of Rehabilitation: Identification through Index Analysis. *Int J of Rehabil Res* 14: 333–5, 1991.
4. Davis, A. M. & Findley, T. W.: Research in physical medicine and rehabilitation X. Information resources. *Am J Phys Med Rehabil* 69: 266–78, 1990.
5. Garfield, E.: Citation Analysis as a Tool in Journal Evaluation. *Science* 178: 471–9, 1972.
6. Lipsett, L. F. & Schultz, C.: The role of annotated bibliographies in information dissemination. *Bull Med Lib Assoc* 72: 180–6, 1984.
7. Roberts, D.: Information Data Bases. *Lancet* 335: 917, 1990.
8. Roberts, D.: The Journal Literature of Occupational Therapy: A Comparison of Coverage by Four Bibliographic Information Services. *Br J Occup Ther (Under Review)*.

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British Library
Boston Spa
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APPENDIX — LIST OF JOURNALS IN THE FOUR CATEGORIES

Rehabilitation Journals	City
Advances in Clinical Rehabilitation	New York
African Rehabilitation Journal	Harare (Zimbabwe)
American Journal of Physical Medicine and Rehabilitation	Baltimore
American Rehabilitation	Washington DC
Archives of Physical Medicine and Rehabilitation	Chicago
Australian Rehabilitation Digest	Canberra
Bulletin of the Tokyo Metropolitan Rehabilitation Center of the Physically and Mentally Handicapped	Tokyo
Canadian Journal of Rehabilitation	Edmonton
Clinical Rehabilitation	London
Cognitive Rehabilitation	Indianapolis
Comprehensive Neurologic Rehabilitation	New York
Contemporary Perspectives in Rehabilitation	Philadelphia
Critical Reviews in Physical and Rehabilitation Medicine	Boca Raton (Florida)
Current Concepts in Rehabilitation Medicine	Houston
Focus on Geriatric Care and Rehabilitation	Rockville (Maryland)
Hearing Rehabilitation Quarterly	New York
Indian Journal of Disability and Rehabilitation	New Delhi
International Journal of Rehabilitation Research	London
International Rehabilitation Review	Washington DC
Journal – Academy of Rehabilitative Audiology	Cedar Falls (Iowa)
Journal – American Deafness and Rehabilitation Association	Little Rock (Arkansas)
Journal – Egyptian Association of Physical Medicine and Rehabilitation	Cairo
Journal of Applied Rehabilitation Counseling	Alexandria (Virginia)
Journal of Burn Care and Rehabilitation	St Louis
Journal of Cardiopulmonary Rehabilitation	Hagerstown (Maryland)
Journal of Head Trauma Rehabilitation	Frederick (Maryland)
Journal of Neurologic Rehabilitation	New York
Journal of Oral Rehabilitation	Oxford
Journal of Rehabilitation	Alexandria (Virginia)
Journal of Rehabilitation Administration	Alexandria (Virginia)
Journal of Rehabilitation in Asia	Bombay
Journal of Rehabilitation Research and Development	Washington DC
Journal of Rehabilitation Research and Development Clinical Supplement	Washington DC
Journal of Rehabilitation Sciences	Lochem (Netherlands)
Journal of Vision Rehabilitation	Lincoln (Nebraska)
Medical Rehabilitation Review	Washington DC
Neuropsychological Rehabilitation	Letchworth (England)
Physical Medicine and Rehabilitation	Philadelphia
Psychosocial Rehabilitation Journal	Boston
Rehabilitation	Stuttgart
Rehabilitation Counseling Bulletin	Alexandria (Virginia)
Rehabilitation Digest	Toronto
Rehabilitation Education (2)	New York, London

APPENDIX — LIST OF JOURNALS IN THE FOUR CATEGORIES (*contd*)

Rehabilitation Journals	City
Rehabilitation Nursing	Skokie (Illinois)
Rehabilitation Psychology	New York
Rehabilitation in South Africa	Pretoria
Scandinavian Journal of Rehabilitation Medicine	Stockholm
Scandinavian Journal of Rehabilitation Medicine Supplement	Stockholm
Sogo Rehabilitation	Tokyo
Special Education and Rehabilitation	Syracuse (New York)
Sports Training, Medicine and Rehabilitation	Reading (England)
Springer Series on Rehabilitation	New York
Topics in Acute Care and Trauma Rehabilitation	Frederick (Maryland)
Topics in Geriatric Rehabilitation	Frederick (Maryland)
Year Book of Rehabilitation	Chicago
Yearbook – Association for Education and Rehabilitation of the Blind and Visually Handicapped	Alexandria (Virginia)
Disability/Handicap Journals	City
Advances in Learning and Behavioural Disabilities	Greenwich (Connecticut)
Advances in Mental Retardation and Developmental Disabilities	Greenwich (Connecticut)
Australia and New Zealand Journal of Developmental Disabilities	Macquarie (NSW, Australia)
Australian Disability Review	Canberra
Bulletin of the Tokyo Metropolitan Rehabilitation Center of the Physically and Mentally Handicapped	Tokyo
Careers and the Handicapped	Greentown (New York)
Contact – London – RADAR	London
Current Topics in Learning Disability	Norwood (New Jersey)
Disability, Handicap and Society	Abingdon (England)
Indian Journal of Disability and Rehabilitation	New Delhi
International Disability Studies	Basel
International Journal of Disability, Development and Education	St Lucia (Queensland, Australia)
Journal of the Association for Persons with Severe Handicaps	Seattle (Washington)
Journal – International Association of Music for the Handicapped	Provo (Utah)
Journal of Disability	Sausalito (California)
Journal of Disability Policy Studies	Fayetteville (Arkansas)
Journal of Learning Disabilities	Austin (Texas)
Journal of Practical Approaches to Developmental Handicap	Calgary (Alberta)
Learning Disability Quarterly	Overland Park (Kansas)
Mental Handicap	Kidderminster (England)
Mental Handicap Bulletin	Kidderminster
Mental Handicap Research	Kidderminster
Mental Retardation and Developmental Disabilities	New York
Mental Retardation and Learning Disability Bulletin	Edmonton
Modern Approaches to the Diagnosis and Instruction of Multi- Handicapped Children	Amsterdam (Netherlands)
Research in Developmental Disabilities	Elmsford (New York)
Sexuality and Disability	New York

APPENDIX — LIST OF JOURNALS IN THE FOUR CATEGORIES (*contd*)

Disability/Handicap Journals	City
Studies in Language Disability and Remediation	London
Yearbook – Association for Education and Rehabilitation of the Blind and Visually Handicapped	Alexandria (Virginia)
Physiotherapy Journals	City
Australian Journal of Physiotherapy	North Fitzroy (Australia)
Clinical Management in Physical Therapy	Alexandria (Virginia)
Clinics in Physical Therapy	New York
International Perspectives in Physical Therapy	Edinburgh
Israel Journal of Physiotherapy	Tel Aviv
Journal – Association of Chartered Physiotherapists in Obstetrics and Gynaecology	Dundee (Scotland)
Journal of Orthopaedic and Sports Physical Therapy	Baltimore
Journal – Singapore Physiotherapy Association	Outram Park (Singapore)
Journal of Physical Therapy Sciences	Saitama (Japan)
New Zealand Journal of Physiotherapy	Wellington (New Zealand)
Pediatric Physical Therapy	Washington DC
Physical and Occupational Therapy in Geriatrics	Binghamton (New York)
Physical and Occupational Therapy in Pediatrics	Binghamton
Physical Therapy	Washington DC
Physical Therapy in Health Care	Binghamton
Physiotherapy	London
Physiotherapy Canada	Toronto
Physiotherapy in Sport	London
Physiotherapy Theory and Practice	London
South African Journal of Physiotherapy	Parklands (South Africa)
Occupational Therapy Journals	City
American Journal of Occupational Therapy	Boston
Australian Occupational Therapy Journal	St Clair (Australia)
British Journal of Occupational Therapy	London
Canadian Journal of Occupational Therapy	Toronto
Occupational Therapy in Health Care	Binghamton (New York)
Occupational Therapy Journal of Research	Thorofare (New Jersey)
Occupational Therapy in Mental Health	Binghamton
Occupational Therapy Practice	Frederick (Maryland)
Physical and Occupational Therapy in Geriatrics	Binghamton
Physical and Occupational Therapy in Pediatrics	Binghamton
South African Journal of Occupational Therapy	Rondebosch (South Africa)