

# Use of Medical and Biological Journals in the Yale Medical Library

## Part II. Moderately Used Journals

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A RECENT study (1) has examined the most heavily used journals in the Yale Medical Library. Among other information, that investigation produced data useful in guiding the acquisition of multiple subscriptions for extremely heavily used journals to increase the availability of such titles. This inquiry was designed, however, to elicit titles of moderately used periodicals of the last five years whose current issues and recent volumes could be shelved in the Reading Room with the heavily used titles to facilitate readers' access to them.

During the period of analysis, issues of the last two years of 414 titles were shelved in the Reading Room. A study carried out in late 1952 had produced a list of some 400 journals to be housed in the Reading Room (2), and in the ensuing years, membership in the group had changed due to readers' requests and other subjective judgements. In the present investigation, it was decided arbitrarily that the criteria for moderate use would be a minimum of three recorded loans made by more than one borrower, and if there were four loans, there should be at least two borrowers with neither withdrawing as many as three issues or volumes. Under these criteria, 177 titles qualified out of 183 in the 1956-60 column of Table I in the first of the present studies (1). Failing to do so were *Acta dermato-venereologica*, *Année psychologique*, *Beiträge zur pathologischen Anatomie und zur allgemeinen Pathologie*, *British Journal of Venereal Diseases*, *Helvetica chimica acta*, and *Union médicale du Canada*.

### METHODS

Since there was shelving space for over four hundred titles and the first study had turned up only 177 heavily and moderately used journals, the

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TABLE 1  
*Moderately Used Journals*

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Acta anatomica  
Acta endocrinologica  
Acta gastro-enterologica Belgica  
Acta physiologica et pharmacologica Neerlandica  
Acta radiologica  
Acta rheumatologica Scandinavica  
American Imago  
American Journal of Digestive Diseases  
American Journal of Diseases of Children  
American Journal of Mental Deficiency  
American Journal of Obstetrics and Gynecology  
American Journal of Occupational Therapy  
American Journal of Pharmacy  
American Journal of Roentgenology  
American Practitioner and Digest of Treatment  
American Scientist  
Der Anaesthetist  
Analytical Chemistry  
Angiology  
Annals of Allergy  
Annals of the Rheumatic Diseases  
Antibiotica et chemotherapia  
Archives of Dermatology and Syphilology  
Archives of Diseases in Childhood  
Archives of Pediatrics  
Archives of Physical Medicine and Rehabilitation  
Australasian Annals of Medicine  
Australian Journal of Experimental Biology and Medical Science  
Behaviour  
Biokhimiia  
Biometrika  
British Heart Journal  
British Journal of Cancer  
British Journal of Medical Psychology  
British Journal of Preventive and Social Medicine  
British Journal of Psychology  
British Journal of Radiology  
Bulletin de l'Association française pour l'étude du cancer  
Bulletin de l'Institut Pasteur  
Bulletin de la Société de chimie biologique  
California Medicine  
Canadian Journal of Biochemistry and Physiology  
Canadian Journal of Microbiology  
Chinese Medical Journal  
Ciba Clinical Symposia  
Circulation Research  
Cleveland Clinic Quarterly  
Clinica chimica acta  
Clinical Obstetrics and Gynecology

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TABLE 1—Continued

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Clinical Orthopaedics  
 Clinical Pharmacology and Therapeutics  
 Comptes rendus de l'Académie des sciences  
 Comptes rendus des travaux du Laboratoire Carlsberg  
 Developmental Biology  
 Diseases of the Nervous System  
 Exceptional Children  
 Experientia  
 Fertility and Sterility  
 Fiziologicheskii zhurnal imeni I. M. Sechenova (Eng.)  
 G P  
 German Medical Monthly  
 Gut  
 Helvetica physiologica et pharmacologica acta  
 Hoppe-Seyler's Zeitschrift für physiologische Chemie  
 Hospitals  
 Human Relations  
 Industrial Medicine and Surgery  
 International Journal of Group Psychotherapy  
 International Journal of Psychoanalysis  
 International Record of Medicine  
 Irish Journal of Medical Science  
 Journal d'urologie médicale et chirurgicale  
 Journal of Anatomy  
 Journal of Biochemistry  
 Journal of Cellular and Comparative Physiology  
 Journal of Clinical and Experimental Psychopathology  
 Journal of Conflict Resolution  
 Journal of Endocrinology  
 Journal of Investigative Dermatology  
 Journal of Lipid Research  
 Journal of Neurology, Neurosurgery, and Psychiatry  
 Journal of Pharmacy and Pharmacology  
 Journal of Projective Techniques  
 Journal of the American Geriatric Society  
 Journal of the American Psychoanalytic Association  
 Journal of the Experimental Analysis of Behavior  
 Journal of the Michigan State Medical Society  
 Journal of the National Medical Association  
 Journal of the Optical Society of America  
 Journal of the Royal Society for the Promotion of Health  
 Journal of Social Psychology  
 Journal of Speech and Hearing Disorders  
 Journal of Ultrastructure Research  
 Journal of Urology  
 Justus Liebig's Annalen der Chemie  
 Laryngoscope  
 Medical Clinics of North America  
 Medical Economics  
 Medical Times

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TABLE 1—*Continued*


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Mental Hospitals
Münchener medizinische Wochenschrift
Naunyn-Schmiedeberg's Archiv für experimentelle Pathologie und Pharmakologie
Neuro-chirurgie
Northwest Medicine
Nursing Outlook
Nursing World
Obstetrics and Gynecology
Plastic and Reconstructive Surgery
Praxis
Prensa medica Argentina
Proceedings of the American Association for Cancer Research
Psychiatry
Psychoanalytic Study of the Child
Psychological Reports
Psychological Review
Psychopharmacologia
Public Opinion Quarterly
Quarterly Journal of Experimental Physiology
Revue française d'études cliniques et biologiques
Revue neurologique
Schweizerische medizinische Wochenschrift
Stain Technology
Thrombosis et diathesis haemorrhagica
Transactions of the Association of American Physicians
Tubercle
Virology
World Neurology

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collection of canceled charge slips was continued following January 15, 1961. Charge cards for 1956-60 issues, as well as for 1961 issues as they began to appear, were added to the earlier file for those titles having fewer than three slips or not represented, in the expectation that soon there would accumulate a total of 400 titles fulfilling the criteria. It was not to be.

When 12 additional weeks had been added (the first study was based on charges collected during 14 weeks), it was clear that two hundred-odd new titles with three charges would not soon be attained. Charge cards for two more weeks were added and also were analyzed. They totaled 101 titles of which 34 were new titles not represented in the file; 18 were titles with one charge; 19 were titles with two, thereby making three charges and qualifying as moderately used, while 30 already had three or more slips. In other words over 60 per cent of the charges were for new titles or titles already qualified as moderately used while less than 20 per cent were for

titles new to the moderately used ranks. With the number of weeks of collected charge slips twice that of the first study, the accumulation of new data was stopped.

It must be emphasized that only the *recorded* use of journals was studied—a fraction of total use. However, it is believed that recorded use, more than other types, represents productive use since the majority of borrowers know that the article will supply desired information before they charge it out.

### RESULTS

It was found that there were 125 new moderately used titles to add to the 177 heavily and moderately used journals of the first study. To these 125 were joined journals which had begun publication in 1959 or 1960 and for which there were two charges, but only two titles fitted this criterion—*Psychopharmacologia* and *World Neurology*. The 127 new titles appear in Table 1.

The largest number of charges for one journal was 10, which the *American Journal of Obstetrics and Gynecology* and *Virology* achieved. Next, 295 titles were represented by one or two slips, with 189 having but one slip.

### DISCUSSION

The observation that charges collected during the thirteenth and fourteenth weeks produced a 50 per cent larger accretion of new titles and titles already having three or more slips than for journals having but two slips suggests that the criterion of a minimum of three charges as defining "moderate use" was too low at the time the study was stopped. In other words, among the titles in Table 1 there may be some that might be characterized as "little used," but it must be recognized that such vague relative phrases have slight value. Nevertheless, it appears highly probable that any biomedical library serving a large research activity will find that the 304 titles in this and the preceding paper supply perhaps 90 per cent of the requests for journals.

Since in this study only two journals achieved the highest score of 10 from data collected over 28 weeks, while in the first group of journals the highest was 85 for 14 weeks, it is clear that the present study successfully excluded heavily used titles. Moreover, the observation in the thirteenth and fourteenth weeks that more charges were for new titles than for any other classification probably represents a phenomenon analogous to Bradford's Law of Scattering which is concerned with the distribution of articles on a given subject throughout journal literature. Basing his investigation on citation counts, S. C. Bradford first published his Law over a

quarter of a century ago, a subsequent statement of which reads "there are a very few productive periodicals, a larger number of more moderate producers, and a still larger number of constantly diminishing productivity." (3) A recent publication reviews the findings of at least three studies of the use of journals (4) that also tend to confirm the validity of extending Bradford's Law to include journal usage.

#### CONCLUSION

Some three hundred journals experience moderate and heavy use in the Yale Medical Library. The results of this and other studies strongly suggest that Bradford's Law of Scattering of citations on a given subject can be applied to the use of journals in a science library.

#### REFERENCES

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