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# Mapping the Literature of Addictions Treatment

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**Objectives:** This study analyzes and describes the literature of addictions treatment and indexing coverage for core journals in the field.

**Methods:** Citations from three source journals for the years 2008 through 2010 were analyzed using the 2010 Mapping the Literature of Nursing and Allied Health Professions Project Protocol. The distribution of cited journals was analyzed by applying Bradford's Law of Scattering.

**Results:** More than 40,000 citations were analyzed. Journals (2,655 unique titles) were the most frequently cited form of literature, with 10 journals providing

one-third of the cited journal references. *Drug and Alcohol Dependence* was the most frequently cited journal. The frequency of cited addictions journals, formats cited, age of citations, and indexing coverage is identified.

**Conclusions:** Addictions treatment literature is widely dispersed among multidisciplinary publications with relatively few publications providing most of the citations. Results of this study will help researchers, students, clinicians, and librarians identify the most important journals and bibliographic indexes in this field, as well as publishing opportunities.

## INTRODUCTION

This study uses the research methodology devised by the Task Force on Bibliographic Access for the Allied Health Literature, Nursing and Allied Health Resources Section (NAHRS) of the Medical Library Association (MLA) [1]. This NAHRS task force was formed in 1993 to study the literature of allied health fields in order to identify core journals in a discipline, "core" being defined as those journals that are most significant and important for scholarly communication in a subject and valuable for a library's research collection. Additional goals were to analyze the formats and features of cited materials and provide quantitative evidence for collection development for librarians. Schloman described the project's original rationale:

Because bibliographic references that appear in journal articles provide a measurable path of information transfer occurring within a field, it is possible to assess quantitatively the characteristics of the literature of that field: the type of literature used, its currency, the core journals, and the extent of dispersion of the journal literature. [2]

As of October 2012, more than thirty-four studies of the literature of nursing, nursing subspecialties, and allied health disciplines have been published in the *Journal of the Medical Library Association (JMLA)* and its predecessor title, the *Bulletin of the Medical Library Association (BMLA)*.

The *Public Policy Statement on Treatment for Alcohol and Other Drug Addiction* issued by the American Society of Addiction Medicine (ASAM) in 2010 defines treatment as:

the use of any planned, intentional intervention in the health, behavior, personal and/or family life of an individual

### Highlights

- Counseling literature is underrepresented in the core literature of addictions treatment.
- As in other mapping studies, journals were most frequently cited, followed by books.
- Addictions treatment literature draws most frequently from the literature of drug and alcohol abuse, medicine, psychiatry, psychology, public health, pharmacology, neurology, and brain science, among others.

### Implications

- Librarians, educators, and researchers should assess their collections and research tools and revise instruction strategies accordingly.
- Both the National Library of Medicine's MEDLINE and the American Psychological Association's PsycINFO databases should be searched for comprehensive searches of the addictions treatment literature.

suffering from alcoholism or from another drug addiction, and which is designed to enable the affected individual to achieve and maintain sobriety, physical, spiritual and mental health, and a maximum functional ability. [3]

The *ASAM Patient Placement Criteria for the Treatment of Substance-Related Disorders* are the officially recognized criteria adopted in thirty states to appropriately place persons with addictions and any co-occurring disorders into the treatment system [4].

### Overview of and trends in addictions treatment in the United States

The definition of addiction and what to do about it have been in dispute throughout history. Miller and



Supplemental Table 6 is available with the online version of this journal.

Carroll noted that “the names used to describe phenomena affect the ways in which one thinks about a problem and what to do about it” [5]. Prior to the 1960s, alcoholism and drug addiction were often understood as either a problem originating in choice, character flaws, or a moral failing. The present addictions treatment field emerged in the 1960s and 1970s, with the development of medical approaches that were very different from the self-help and religious approaches prominent in the United States [6]. By then, the American Medical Association (AMA) and other medical groups officially recognized alcoholism as a physical disease process, although this view was met with stiff opposition from recovery communities such as Alcoholics Anonymous [5]. Today, modern medicine widely upholds the AMA view, paving the way for establishing addiction medicine as a medical specialty. In 2011, ASAM adopted a statement that expanded on the findings of recent neuroimaging research, stating that not only the brain’s reward circuitry, but also memory, motivation, and other neurological phenomena are involved in addiction [7]. The ASAM definition is likely to have broad implications for the criminal justice system and law, primary care and specialized medical practice, public policy, and public health, as well as the addictions treatment and counseling fields [8]. However, the inclusion of sex, gambling, and Internet addictions as true addictions continues to be in dispute, especially between the fields of medicine, psychology, and counseling.

The problem of who can help and how an addict or alcoholic can be helped is also somewhat controversial. Self-help communities of recovery such as Alcoholics Anonymous have helped many, but medical interventions now offer new hope based on research.

### Treatment settings

Hospital-based addiction treatment programs proliferated in the 1980s due to the willingness of private health insurance plans to pay for in-patient detoxification stays but were drastically reduced and shifted to outpatient treatment in the 1990s under managed care programs. Now the pendulum is swinging back to reestablish addiction treatment coverage in health plans and in medical settings. The Mental Health Parity and Addiction Equity Act of 2008 and the Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act of 2010 propelled the addiction treatment system to undergo major and rapid changes in anticipation of increased demand for services [9]. Under recent health reform, insurers are required to provide coverage for substance abuse and mental health services on a par with other covered medical conditions with the same financial requirements and benefits limitations in their plans. Also, behavioral health treatment services are subject to the same standards for qualifications for payment by insurers as primary health care services [9]. These recent reforms enable more people who need and desire treatment to receive treatment

because many more will have insurance, and those with insurance will have coverage for addiction treatment.

Currently, treatment primarily takes place in specialized treatment facilities (68%) or mental health facilities (5%), according to a 2010 Substance Abuse and Mental Health Services Administration (SAMHSA) survey of 15,390 eligible treatment facilities [10]. Most treatment takes place on an outpatient basis (90%). Only a fraction of treatment takes place in hospital settings (less than 1%), while 9% takes place in residential settings, but this is anticipated to change.

Staffing of treatment facilities varies, depending on state and local law and diagnosis of any co-occurring mental disorders or physical findings [21]. Professionals from counseling, rehabilitation, social work, medicine, criminal justice, nursing, and psychology disciplines are most commonly involved in treatment, and most of these fields have credentialing programs [22, 23] (Table 1). The typical addiction treatment program in the United States employs mostly counselors, each treating a caseload of 60 to 80 clients; very few other professional disciplines are represented in most programs [24]. The Bureau of Labor Statistics (BLS) reported 86,100 addictions counselors were employed in 2008, and that number was expected to grow “much faster than average” for other occupations [14]. Over 18,000 additional counselors are forecasted to be added to the system, for a projected employment of 104,200 by the year 2018.

Other professionals such as pastoral counselors and marital and family therapists may also work in the treatment field, providing a variety of skills and perspectives in treatment and support of recovery. The master’s degree is considered the professional level of practice in the treatment field, although counselor certification also exists for high school diploma and bachelor’s degree-prepared professionals who work under supervision [9, 10, 15]. A combination of education hours or degrees and clinical practice hours is required for certification. Not all professional credentials are accepted nationally, though many state certifications for counselors are reciprocal with other states. Continuing education activities, including reading the professional literature, are an important part of keeping credentials current.

### Literature review

Although various directories of journals, newsletters, and magazines in the field are available, no study describing a core collection of addictions treatment journals has been conducted. Howard and Howard’s investigation in 1992 examined the citation rates of 541 selected articles in 12 drug and alcohol journals indexed in the Social Science Citation Index for the 5-year period of 1984–1988 [25]. They noted the need for increased research on addiction literature using bibliometric methods and recognized the difficulties

**Table 1**  
Professional credentials for addiction treatment workers

Profession	Credentialing organization	Credential	Education required
Clinical psychology	American Psychological Association (APA)–accredited PhD programs [11, 12]	Licensure dependent on state law	Doctorate (PhD)
Counseling	National Board for Certified Counselors, American Counseling Association [13]	Master addictions counselor (MAC)	Master's
Counseling	State certification [14, 15]	Certified advanced alcohol and drug counselor (CAADC) is reciprocal in 47 states	Master's
Counseling paraprofessional	State certification	Various state certifications requiring combination of education and work experience	High school, associate's, bachelor's
Criminal justice	State certification, reciprocal in 47 states [16]	Certified criminal justice addiction professional (CCJP)	Combination of education (diploma, associate's, bachelor's, master's, PhD) and experience
Health psychology	APA-accredited PhD and postdoc programs	Dependent on state law	PhD plus postdoc
Medicine	American Board of Addiction Medicine [17]	Board certification in addiction medicine	Medical doctor (MD) or doctor of osteopathy (DO) plus postdoc
Medicine/Psychiatry	American Board of Psychiatry and Neurology [18]	Board certification in addiction psychiatry	MD or DO plus postdoc
Nursing	Addictions Nursing Certification Board [19]	Certified addictions registered nurse (CARN)	Registered nurse (RN) (associate's)
Nursing	Addictions Nursing Certification Board	Certified addictions registered nurse-advanced practice (CARN-AP)	Master of science in nursing
Rehabilitation psychology	APA-accredited PhD and postdoc programs	Dependent on state law	PhD plus postdoc
Social work	National Association of Social Workers (NASW) [20]	Certified clinical alcohol, tobacco, and other drug social worker (C-CATODSW)	Master of social work and 2 years' experience

of using citation counts where the intended audiences of particular journals and articles were not scientists.

Weiner and White studied addiction periodical literature from 1776–2001 in relation to its origins in social movements and medical and mutual aid societies [26]. West and McIlwaine's 2002 study of citation counts to research published in the journal *Addiction* found no link between citation counts and peer ratings of quality [27]. Another citation study of *Addiction* by Valderrama Zurian found most citations were to journal articles (76.00%) and books and chapters (23.25%) [28]. A small number of citations to conference proceedings, doctoral theses, and other gray literature or Internet sites was noted. Other studies looked at topics, authors, and submission patterns [29–31]. Carbonnell's 2009 study, published in the *JMLA*, described publication characteristics of research on addictions to Internet, video games, and cell phones over a 10-year period and found 179 articles widely dispersed among 96 journals [32].

## METHODS

As stated in the introduction, this study used a protocol developed by the NAHRS Task Force on Bibliographic Access for the Allied Health Literature, revised in 2010. The selection of source journals is the most critical step of the 2010 mapping study protocol [1]. According to the protocol, source journals should provide coverage of the literature of the profession comprehensively, rather than narrow aspects. In the mapping studies, source journals most often originate in the United States and are US focused. A review of directories of alcohol and drug abuse literature produced numerous magazines as well as scholarly journals. The decision was made to focus on the literature of patient care and client care, rather than the genre of alcohol and addiction in general. Only peer-reviewed, scholarly journals focused on treat-

ment and published in English primarily, for a US audience, were considered for this study. Journals were reviewed for their intended audience of clinicians and students, but locating candidates for source journals proved difficult.

Suggestions for a list of "Top 5" addictions treatment journals were solicited from Governors State University faculty and external librarian colleagues via email, resulting in a variety of candidates, most which did not meet the inclusion criteria. Title searches in Ulrich's Periodicals Directory [33] and the Substance Abuse Librarians & Information Specialists (SALIS) directory of journals [34] were reviewed, as well as journal websites, noting scope notes and reviews. NAHRS mapping studies often look to professional society journals as source journals, but the most likely candidate, *Counselor: The Magazine for Addictions Professionals*, did not meet the "scholarly" criteria. Due to the fact that most of the professionals in treatment settings are counselors, the inclusion of an addiction counseling journal was important. The British journal *Addiction* was considered but was rejected in favor of *Drug and Alcohol Dependence*, a US journal. The following journals were selected:

■ *Drug and Alcohol Dependence* is the journal of the College on Problems of Drug Dependence, the oldest society in the United States concerned with drug dependence research. The journal is published by Elsevier. The purpose of the journal is "to promote mutual understanding of the many facets of drug abuse to the benefit of all investigators involved in drug and alcohol research, and to facilitate the transfer of scientific findings to successful treatment and prevention practices" [35].

■ *The Journal of Addictions and Offender Counseling*, published by Wiley-Blackwell, is the official journal of the International Association of Addiction and Offenders Counselors, a division of the American Counseling Association. The journal "contains articles



of interest to professionals in the fields of addictions and offender counseling and focuses on descriptions of prevention and treatment programs, theoretical and philosophical rationales for programs with juvenile and adult offenders, and descriptions of research conducted on rehabilitation programs with offenders and public offender counselors. It is also open to literature focusing on the attitudes and behaviors of addictions and offender counselors" [36]. Despite the inclusion of offenders in its scope, only a few non-addiction articles were published during the study period.

■ The *Journal of Substance Abuse Treatment* "values high quality empirical research that is relevant for translation by treatment practitioners from all disciplines and across any setting where persons with substance use problems are encountered" [37]. Also published by Elsevier, this journal seemed to most effectively meet the inclusion criteria.

Following the protocol, full-length journal articles for the three-year period of 2008, 2009, and 2010 were studied. Letters to the editor, brief communications, editorials, special issues, and book and media reviews were excluded. A database was created consisting of all cited references from all full-length articles published in the three source journals in the study period, using an Excel spreadsheet and manual data entry because exporting citations from sources proved unworkable and there were problems with the accuracy and completeness of citations in secondary sources.

Key elements from each cited reference were entered into the following columns: accession number, source journal, source year, volume/issue, publication type or title of the cited journal, citation year, and notes. Each citation was categorized as a "Book," "Journal," Government Document," "Internet," or "Miscellaneous"; the latter category included gray literature such as psychological tests and assessments, theses, software, scholarly presentations, and unpublished manuscripts. Books, journals, and US government publications were counted as those material types, regardless of whether the publication was digital or in print or what the material type was. Journals and books would be counted as government publications if that designation were obvious. Non-US government publications were categorized as "Miscellaneous." Only websites that did not fall into other categories were placed in the "Internet" category.

Upon completion of data entry, the researcher collapsed variations in journal titles due to name changes and recorded the journals under the most recent journal titles. Errors in journal title abbreviations were corrected. The National Library of Medicine (NLM) abbreviation was chosen for uniformity, using the NLM Journals Database [38] and Ulrich's Periodicals Directory [33].

Using the Excel pivot table function, journal titles and material formats were counted and sorted by the most to the least frequently cited, and Bradford's Law of Scattering was applied. Bradford's Law of Scattering states that in any given subject area: "there are a few

very productive periodicals, a larger number of more moderate producers, and still larger number of constantly diminishing productivity" [39]. The cited journals were divided into three approximately equal portions or "zones," based on their total counts of cited references. Zone 1, the most frequently cited journal titles, could be considered the most important in the field and therefore of highest interest to librarians, researchers, publishers, indexers, and professionals in the field. Zone 2 is the middle ground of less frequently cited journals, which are possibly of decreasing importance in consideration for a core bibliography for the field. Zone 3 lists those journals that are infrequently cited and thus would be of least importance to the literature of addictions treatment.

Also using the pivot table function, the researcher sorted citations by format types and organized them by publication year in order to analyze age of citations. Manuscripts, in-process, or journal citations without dates were counted as published in 2010.

The final step was to investigate the availability of indexing of Zone 1 and Zone 2 journals in standard indexing tools. CINAHL Plus with Full Text was selected for database comparison, along with MEDLINE and PsycINFO. Although not widely available in health sciences libraries, the Science Citation Index (SCI), Social Science Citation Index (SSCI), Science Citation Index Expanded (SCI Exp), and BIOSIS Previews databases were also reviewed due to their comprehensive coverage of high-quality physical, life, and social science literature. Each Zone 1 and Zone 2 journal was checked against the CINAHL Plus with Full Text coverage list [40], the Thomson Reuters Master Journals List (for SCI, BIOSIS, SSCI, and SCI Exp) [41], the NLM Journals Database for MEDLINE indexing [38], and the List of Journals Indexed for PsycINFO [42]. The availability of indexing was noted for all indexes, and coverage years were noted for MEDLINE, CINAHL, and PsycINFO.

## RESULTS

*Drug and Alcohol Dependence* proved the most productive journal, providing 25,335 cited references, almost double the number from the *Journal of Substance Abuse Treatment*, which supplied 14,747 cited references (Table 2). Both source journals overshadowed the *Journal of Addictions and Offender Counseling*, which provided only 875 citations. Citations to journals made up the large majority of citations, with more than 82% of the total. Books were cited the next most frequently, with more than 8% of total citations. The miscellaneous category—citations to assessments, gray literature, theses, conference presentations, non-US government publications, and so on—constituted 4.9% of citations, while government documents were cited slightly less frequently at 3.9%. Internet sites not falling into other categories were cited infrequently. The *Journal of Addictions and Offender Counseling* cited books more frequently (24.7%) than the other 2 source journals (7.0%, 9.0%), while citing journals less frequently than the others for the study period.

**Table 2**  
Format types by source journal and citation frequency

Cited format type	Number of citations in source journals						Totals	
	Drug Alcohol Depend		J Subst Abuse Treat		J Addict Offend Rehab			
	no.	%	no.	%	no.	%	no.	%
Journal articles	21,589	85.2%	11,648	78.9%	547	62.5%	33,784	82.5%
Books	1,779	7.0%	1,352	9.0%	216	24.7%	3,347	8.2%
Government documents	772	3.0%	788	5.3%	40	4.6%	1,600	3.9%
Internet resources	219	0.9%	2	0.01%	0	—	221	0.5%
Miscellaneous	976	3.9%	957	6.5%	72	8.2%	2,005	4.9%
Total	25,335	61.9%	14,747	36.0%	875	2.1%	40,957	100.0%

The review of the publication date ranges of the cited references in Table 3 shows that the majority of references from 2008, 2009, and 2010 articles (58%) were published in the decade of 2001–2010, while articles from the years 2001–2005 were cited the most frequently (35%). Citations for older 5-year segments diminished about 50% for each 5-year period.

Table 4 shows the scattering predicted by Bradford's law. Less than 0.5% of the 2,655 total journals cited are Zone 1 journals, with a very heavy concentration of citations in just 10 journals in this subject area. Zone 2 contains 80 journals, accounting for almost 3% of the total number of journals. More than 2,565 journals fall in the long tail, as predicted by Bradford et al., making up almost 97% of the journal titles cited. One-thousand three hundred fifty-two of these journals were cited only once.

Table 5 provides a listing of Zone 1, with the results of the investigation of indexing coverage. (For a complete list of Zone 1 and Zone 2 titles and coverage, see Table 6, online only.) In addition to serving as a prolific source of articles, *Drug and Alcohol Dependence*, not surprisingly, was cited the most often in this study with 2,224 citations. *Addiction* and *Journal of Substance Abuse Treatment* are close behind in concentration of cited references with 1,996 and 1,655 cited articles, respectively. A very thin line of 1 citation separates Zone 1 from Zone 2, but the decision was made to keep *Psychopharmacology (Berlin)* in Zone 2 in

order to most closely adhere to the protocol's directive to identify 3 equal zones.

MEDLINE provided the most comprehensive coverage of Zone 1 and Zone 2 journals, with two additional journals having PubMed citations, but not indexed in MEDLINE. PubMed includes the MEDLINE database as well as non-reviewed prepublication and historical citations supplied by publishers and other sources. BIOSIS and the Science Citation Indexes provided less coverage of Zone 1 and Zone 2 journals, while PsycINFO provided the next best comprehensive coverage after MEDLINE.

## DISCUSSION

This study sets a record of 40,957 citations studied; the previous record of 29,305 citations was set by Taylor et al. in their 2007 study of the health care management literature from 5 source journals [43]. In the NAHRS mapping study series, this study is perhaps most similar to Taylor's in describing the literature of a professional field with diverse stakeholders. However, the number of Zone 1 and 2 journals in the current study (90) is much greater than that of the health care management literature study (58), showing that the literature is more widely distributed [43]. Zone 3, those journals that are more peripheral to the field, is twice the size in addiction treatment literature, containing 2,565 journals compared to 1,766 Zone 3 journals in the

**Table 3**  
Cited format types by publication year periods

Publication year range	Number of citations in source journals										Totals	
	Journal articles		Books		Government documents		Internet		Misc.			
	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%
2006–2010*	8,026	23.8%	386	11.5%	509	31.8%	129	58.4%	653	32.6%	9,703	23.7%
2001–2005	11,770	34.8%	847	25.3%	544	34.0%	78	35.3%	703	35.1%	13,942	34.0%
1996–2000	7,241	21.4%	696	20.8%	288	18.0%	11	5.0%	295	14.7%	8,531	20.8%
1991–1995	3,581	10.6%	608	18.2%	155	9.7%	2	0.9%	214	10.7%	4,560	11.1%
1986–1990	1,497	4.4%	342	10.2%	45	2.8%	1	0.5%	77	3.8%	1,962	4.8%
1981–1985	750	2.2%	177	5.3%	35	2.2%	0	—	35	1.7%	997	2.4%
1976–1980	430	1.3%	136	4.1%	20	1.3%	0	—	11	0.5%	597	1.5%
1971–1975	241	0.7%	53	1.6%	3	0.2%	0	—	10	0.2%	307	0.7%
1961–1970	149	0.4%	66	2.0%	1	0.1%	0	—	5	0.1%	221	0.5%
1951–1960	66	0.2%	20	0.6%	0	—	0	—	2	0.001%	88	0.2%
Pre-1951	33	0.1%	16	0.5%	0	—	0	—	0	—	49	0.1%
Totals	33,784	100.0%	3,347	100.0%	1,600	100%	221	100.0%	2,005	100.0%	40,957	100.0%

\* Includes n.d. (no date), manuscript, in-process, and submitted status.

**Table 4**  
Distribution of cited journals and references by zone

Zone	Cited journals		Cited journal references		Cumulative total
	no.	%	no.	%	
1	10	0.4%	11,166	33.1%	11,166
2	80	3.0%	11,222	33.2%	22,388
3	2,565	96.7%	11,396	33.7%	33,784
Total	2,655	100.0%	33,784	100.0%	

health care management study. This difference may indicate that librarians developing collections that support treatment professionals—especially in psychology, medicine, psychiatry, and addiction medicine—may need to consider a larger number of journals than for other disciplines.

As with other NAHRS mapping studies, journals were the most frequently cited format of literature, followed by books, miscellaneous/gray literature, government documents, and Internet. This study found similar results to Valderrama Zurian’s study of five years of *Addiction* citations, finding that journal articles and books were cited most frequently [28].

This study is also the first known in the mapping series where the selected source journal did not appear in Zone 1 or Zone 2. The *Journal of Addictions and Offender Counseling* ranked number 240 in this study. The appearance of *JAMA* as one of the Zone 1 journals in this study is surprising but also not totally unexpected, given its leading role in health sciences literature. Other Zone 1 journals, the *American Journal of Psychiatry* and *Archives of General Psychiatry*, are available in many general health sciences library collections. Surprisingly, *Alcoholism Treatment Quarterly* is the only counseling journal in Zones 1 and 2, contrasting with the predominance of counselors in the treatment workforce. The literature of addiction treatment is widely dispersed among the disciplines of drug and alcohol abuse, psychology, medicine, psychiatry, pharmacology and therapeutics, psychopharmacology, public health, epidemiology, neurology and brain science, and infectious disease, among others.

US government-related journals, such as *Alcohol Research and Health* at number 40 and *Public Health Reports* at number 86, were not counted as government documents but accounted for 201 citations. If these journals were added to the government documents total, government documents would be cited nearly as frequently (973) as miscellaneous (976). Internet websites not falling into other categories were cited infrequently, but there was a large difference between *Drug and Alcohol Dependence* and the other source journals.

NLM’s MEDLINE was found to provide the best indexing coverage for addiction treatment journals. All but two of the top ninety most cited journals in this study (Zones 1 and 2) are indexed in MEDLINE. Even though *Alcoholism Treatment Quarterly* is not currently indexed for MEDLINE, citations to selected articles can be located in PubMed with links to the full text in PubMed Central. Five citations were found in MEDLINE for the *Journal of Drug Issues*, but it is currently not indexed. PubMed included another sixty-one non-indexed citations from this title with links to full text in PubMed Central. PsycINFO provided excellent coverage of Zone 1 and Zone 2 journals but did not include as many titles as MEDLINE. PsycINFO often provides earlier coverage than MEDLINE, but MEDLINE indexes public health, internal medicine, and health services titles not covered in PsycINFO. CINAHL expanded coverage of addictions literature beginning with 2006, and this database should be considered by the searcher working on topics related to care that the nursing and allied health care team provides.

**Table 5**  
Distribution and indexing coverage of Zone 1 for 2010\*†

Cited journals	# of citations	CINAHL Plus with Full Text	MEDLINE	PsycINFO	BIOSIS	SSCI‡	SCI‡	SCI Exp‡
<b>Zone 1</b>								
1 Drug Alcohol Depend	2,224	Sel 1999–2002, Full 2003–	1975–	1975–	0	X	X	X
2 Addiction	1,996	Sel 1993–2002, Full 2003–	1993–	1971–	X	X	X	X
3 J Subst Abuse Treat	1,655	2008–	1984–	1984–	X	0	0	X
4 Arch Gen Psychiatry	935	0	1965–	1959–	X	X	X	X
5 J Stud Alcohol Drugs	843	2008–	1965–	1940–	X	X	0	X
6 Addict Behav	817	2008–	1977–	1976–	X	0	X	X
7 J Consult Clin Psychol	757	Sel 1986–	1965–	1937–	0	X	X	0
8 Alcohol Clin Exp Res	740	Sel 2000–2005, Full 2006–	1977–	1981–	0	X	X	X
9 Am J Psychiatry	627	Sel 1968–2005, Full 2006–	1965–	1928–	X	X	X	X
10 JAMA	572	Sel 1962–2005, Full 2006–	1964–	1966–	0	X	X	X
n=10 Zone 1 totals§	11,166	Sel: 1, Full: 8	10	10	6	8	8	9

\* Coverage years only analyzed for CINAHL, MEDLINE, and PsycINFO.

† Sel=Selective indexing, X=Currently fully indexed, 0=not indexed.

‡ SSCI=Social Science Citation Index, SCI=Science Citation Index, SCI Exp=Science Citation Index Expanded.

§ Totals indicate journals reported to be fully indexed unless otherwise indicated.

The Thompson Reuters SCI, SSCI, SCI Exp, and BIOSIS indexes may prove useful to researchers for indexing coverage because some titles extend to the early 1900s, but given the coverage of more widely available indexes, the use of these indexes may not be normally required.

Some of the results in the NAHRS mapping series have been used to advocate to publishers of indexes to expand coverage in a discipline, but this study shows that indexes available through most academic and health sciences libraries and for free on the Internet already provide excellent indexing coverage.

### Limitations

The use of professional knowledge and judgment in selecting study journals is both a strength and the greatest limitation of this methodology. In retrospect, *Drug and Alcohol Dependence* could have been used as a single source of study citations because it supplied 25,355 citations and would have produced similar results in terms of types of materials cited. The disparity in journal output between the 3 source journals likely skewed the results in favor of the influence of citations in *Drug and Alcohol Dependence*.

Zone 1 journals could be considered a core list, but this list should be balanced with knowledge of local needs and requirements. Neurology and pharmacology research literature might not be useful for a community college library supporting an addictions studies program, for example. The distinctions between zones are somewhat arbitrary; there is a difference of only a few citation counts between journals at the margins. As Corby stated in regard to defining a core journal list, "no study is ever definitive" [44].

### CONCLUSIONS

Librarians should note that training of addictions counselors and other professionals is likely to increase to meet the demand created by health care reform. The new medical specialty of addiction medicine, a residency program recently established by the American Board of Addiction Medicine, indicates new recognition of the importance of addiction treatment, and this may influence medical school and nursing and allied health curricula. Librarians can use Zone 1 and Zone 2 journal titles to assist in making collection development decisions to support academic programs and clinicians' information needs. Instructors and authors may find the results useful for guiding students in the field and identifying publishing opportunities.

MEDLINE provides the most comprehensive coverage of addiction treatment literature, but PsycINFO should also be searched for comprehensive searches. CINAHL indexing coverage has increased in Zone 1 and Zone 2 journals since 2006 and should also be searched for nursing, allied health, and rehabilitation-related topics.

This study identifies a gap between the professions working in the field and the scholarly literature of addictions treatment. Only one counseling journal was identified in Zones 1 and 2, and no nursing, social work, or criminal justice journals were identified, possibly identifying a gap in translating research into practice, but more needs to be known about the clinician's actual usage of the literature including monographs and government documents. This study contributes to the body of research on the literature of addictions, but more research is needed. The NAHRS mapping protocol could also be used to study subspecialty areas such as addictions counseling, addictions medicine, prevention, addictions nursing, and social work in the addictions.

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