
Mapping the literature of emergency nursing

By Kristine M. Alpi, MLS, MPH, AHIP

kalpi@att.net

Associate Library Director

Samuel J. Wood Library and C. V. Starr Biomedical Information Center

Lecturer in Public Health

Weill Medical College of Cornell University

1300 York Avenue

New York, New York 10021

Purpose: Emergency nursing covers a broad spectrum of health care from trauma surgery support to preventive health care. The purpose of this study is to identify the core literature of emergency nursing and to determine which databases provide the most thorough indexing access to the literature cited in emergency nursing journals. This study is part of the Medical Library Association's Nursing and Allied Health Resources Section's project to map the nursing literature.

Methods: Four key emergency nursing journals were selected and subjected to citation analysis based on Bradford's Law of Scattering.

Results: A group of 12 journals made up 33.3% of the 7,119 citations, another 33.3% of the citations appeared in 92 journals, with the remaining 33.3% scattered across 822 journals. Three of the core 12 journals were emergency medicine titles, and 2 were emergency nursing titles from the selected source journals. Government publications constituted 7.5% of the literature cited.

Conclusions: PubMed/MEDLINE provided the best overall indexing coverage for the journals, followed by CINAHL. However, CINAHL provided the most complete coverage for the source journals and the majority of the nursing and emergency medical technology publications and should be consulted by librarians and nurses seeking emergency nursing literature.

INTRODUCTION

Emergency nursing is one of the fastest growing specialties in the nursing profession, with almost 95,000 registered nurses employed in emergency departments (EDs) in the United States in 2000 [1]. Emergency nursing is defined as care of individuals of all ages with perceived or actual physical or emotional alterations of health that are undiagnosed or that require further interventions [2]. Emergency nursing expertise encompasses knowledge about all age groups and medical specialties. Emergency nursing work includes specialized professional nursing roles: advanced practice nurses, clinical nurse specialists, nurse practitioners, and flight nurses. Working in the emergency department requires mastery of the ED's technology and equipment, awareness of social services, and the ability to collaborate effectively with pre-hospital care providers. Preventive health care, specifically injury prevention, is becoming a larger role for emergency nurses.

PROFESSIONAL ORGANIZATIONS AND CREDENTIALING

The primary organization in the United States for emergency nurses is the Emergency Nurses Association (ENA). In 1970, the Emergency Room Nurses Organization was launched in Buffalo, New York, by Anita Dorr, inventor of the crash cart. Meanwhile Judith Kelleher formed the Emergency Department Nurses Association in California. These two groups joined on December 1, 1970, to become the Emergency Department Nurses Association, renamed the ENA in 1985 [3]. The ENA includes subspecialties for managers, trauma, government affairs, research, pediatrics, telephone triage, injury prevention, emergency medical services (EMS), and forensics. In 1972, the Royal College of Nursing in the United Kingdom established an accident and emergency nursing group, which became the Accident & Emergency Nursing Association in 1990 [4]. The first international emergency nursing conference was held in 1985 in London [5]. Other countries do not have organizations specifically for

emergency nurses, but nurses can join other emergency-focused associations. In Hong Kong, for example, nurses can join the Hong Kong Society of Emergency Medicine & Surgery as affiliated members [6].

Trauma nursing is a subspecialty in emergency nursing that has its own organizations and journals. The Society of Trauma Nurses Website [7] explains that trauma nurses have additional knowledge and expertise in the complex care required for the traumatically injured patient. They practice in all care delivery settings where injured patients are treated, including the pre-hospital setting, emergency department, peri-operative arena, intensive care units, surgical floors, rehabilitation, and outpatient services. "The Trauma Nursing Core Course" is an international course that provides international standards for trauma training [5]. It was taught in the United Kingdom for the first time in 1990 [4].

Credentialing options for emergency nurses consist of the certified emergency nurse (CEN) and certified flight registered nurse (CFRN). The Board of Certification for Emergency Nursing (BCEN) is the independent corporation nationally and internationally responsible for the Certification Examination for Emergency Nurses [8]. Emergency nursing practice is dynamic, fluid, and continually evolving and requires lifelong learning. Like all nursing disciplines, the scientific basis of emergency nursing practice is constantly changing and new knowledge must be developed and validated through research. Gonnerman emphasizes that ED nurses and nurse managers require information from the literature to practice effectively [9]. Research in emergency nursing should extend to examining the emergency nursing literature.

Emergency medicine has been active in describing and analyzing its literature [10–12]. Authors have considered subject matter [13], number of research articles and case reports [14, 15], research methodology [16, 17], multiple authorship [15], sources of funding [18–20], accuracy of references [21], currency of the content [22], value of impact factors [23], and adequacy of PubMed/MEDLINE coverage of the *Journal of Emergency Medicine* [24]. These are all potential areas for emergency nursing literature research.

PURPOSE

The purpose of this study is to identify the core literature of emergency nursing and to determine which databases provide the most thorough indexing access to the literature cited in emergency nursing. A secondary purpose is to determine the relative frequency of cited format types and publication years. Searches of several computerized indexes did not identify any previous similar studies of the emergency nursing literature. This study follows the protocol set by the Task Force to Map the Literature of Nursing of the Medical Library Association's Nursing and Allied Health Resources Section [25] and is patterned after the effort to map the literature of allied health [26].

This study does not attempt to look at the incidence

of citation errors in emergency nursing literature. Goldberg et al. determined the incidence of citation errors in the 3 major emergency medicine journals: *Annals of Emergency Medicine*, *Journal of Emergency Medicine*, and *American Journal of Emergency Medicine* [21]. A study of the number and types of errors in references in 4 widely read pediatric nursing journals showed that, of the 190 references examined, 79 contained errors, for an overall error rate of 41.6%. Major errors, which prevent the rapid retrieval of information, occurred in 28.9% of the references [27]. This mapping study relies on citations as reported by the authors, therefore it may be affected by an error rate which has not been quantified.

METHODOLOGY

This study has followed the common methodology described in the project overview article [28]. To select source journals for the study, the Brandon/Hill Print Nursing Books and Journals 2002 list was consulted [29]. Two emergency nursing titles appeared on the Brandon/Hill list: *JEN: Journal of Emergency Nursing* (listed as an initial purchase) and *International Journal of Trauma Nursing (IJTN)*. *IJTN* also appeared on the Canadian Nursing Association's 1997 *Suggested List of Periodicals for Nurses for the Canadian Health Science Library*. *Accident and Emergency Nursing* appeared on Allen's list of key nursing journals [30]. It seemed important to make this review international in scope, so emergency nursing journals published outside the United States were identified through a search of the National Library of Medicine's LocatorPlus catalog and evaluated for inclusion.

Emergency nursing and pre-hospital emergency care are closely linked, and the ENA has a position statement on the role of the nurse in the pre-hospital environment [31]. The "Brandon/Hill Selected List of Print Books and Journals in Allied Health" [32] was also consulted in the emergency medical technology category, where the following titles were listed: *Annals of Emergency Medicine*, *Emergency Medical Services*, *Emergency Medicine*, *JEMS: Journal of Emergency Medical Services*, and *Topics in Emergency Medicine*. The amount of research literature in pre-hospital emergency care is scarce [33], with most of the publications such as *JEMS* providing news and practice articles with limited numbers of references. Therefore, no pre-hospital emergency care publications were selected for this review of the emergency nursing literature.

The four source journals selected were *JEN*, *IJTN*, *Accident and Emergency Nursing*, and *Emergency Nurse*. In discussions with New York emergency nurses, *JEN* was the only one of these emergency-specific journals mentioned as regular reading, and most of the nurses reported reading only general nursing journals.

JEN has been published since 1975 [34] and is ENA's peer-reviewed, bimonthly journal and an official publication. It offers original clinical articles by emergency department staff, and practical information from sections such as "Case Review," "Clinical Notebook,"

Table 1
Cited format types by source journal and frequency of citations

Cited format type	No. citations in source journals				Citations	
	IJTN	AEN	EN	JEN	Total	Frequency
						%
Journal articles	378	1,207	1,317	1,696	4,598	64.6%
Books	156	395	571	345	1,467	20.6%
Government documents	41	162	230	95	528	7.4%
Internet resources	9	1	4	19	33	0.5%
Miscellaneous	35	132	121	205	493	6.9%
Total	619	1,897	2,243	2,360	7,119	100.0%

IJTN = *International Journal of Trauma Nursing*.

AEN = *Accident and Emergency Nursing*.

EN = *Emergency Nurse*.

JEN = *Journal of Emergency Nursing*.

"Drug Update," "Law and the Emergency Nurse," and "Managers Forum" [35]. *Accident and Emergency Nursing*, the official journal of the Emergency Nurses' Association of Australia, is published quarterly by Elsevier. *Accident and Emergency Nursing* is devoted to accident and emergency (A&E) nurses and their interests. The journal reflects the scope of the A&E nurse's responsibilities, highlights the growing number of practical and personal skills needed in A&E nursing, covers the many medicolegal issues in A&E nursing, and caters to all levels of staff working in emergency settings throughout the world [36]. Published ten times a year by RCN Publishing in the United Kingdom, *Emergency Nurse* began as a newsletter in 1983 and became a journal in 1992/93. It now contains peer-reviewed articles on the latest clinical innovations and best-practice guidelines, as well as coverage of management and education issues [37]. *IJTN* was published by Mosby for the Trauma Nursing Coalition (TNC). The TNC comprises the American Association of Critical-Care Nurses, American Association of Nurse Anesthetists, Association of periOperative Registered Nurses (AORN), Association of Rehabilitation Nurses, Emergency Nurses Association, and Air & Surface Transport Nurses Association. *IJTN* ceased publication with the July 2002 issue [38].

All four of the journals have cited references in CINAHL. The availability of the cited references was par-

Table 3
Distribution by zone of cited journals and references

Zone	Cited journals		Cited journal references		
	No.	%	No.	%	Cumulative
					total
Zone 1	12	1.3%	1,555	33.8%	1,555
Zone 2	92	9.9%	1,577	34.3%	3,132
Zone 3	822	88.8%	1,466	31.9%	4,598
Total	926	100.0%	4,598	100.0%	

ticularly important for titles that were not held by libraries in the author's geographic area. The *Journal of Trauma Nursing*, a quarterly publication of the Society of Trauma Nurses, was considered but not selected because it lacked full 1998 coverage in CINAHL at the time of source journal selection.

RESULTS

The reference lists of 1,270 articles in the 4 source journals were analyzed, resulting in 7,119 cited references. Table 1 shows the number of citations in each source journal by format. The 788 articles from *Journal of Emergency Nursing* provided 2,360 citations; 210 articles with 2,243 citations from *Emergency Nurse*; 157 articles with 1,897 citations from *Accident and Emergency Nursing*; and 115 articles with 619 citations in *International Journal of Trauma Nursing*. The majority of cited references, 64.6% (4,598), were to journal articles; 20.6% (1,467) were to books; and 7.4% (528) were to government documents. The remaining 7.4% (526) cited miscellaneous formats, including Websites.

Table 2 shows citation formats for publication period. For all formats, the 1991-to-present group had the greatest percentage of citations: 70.9% of journal citations, 64.4% of book citations, 84.1% of government publications, and 82.1% of miscellaneous citations. As expected, the most recent literature was heavily relied on, with 15.7% of all formats dating from 1997 to the present. Of all citations to all formats, 93.4% were published between 1980 and 1999. A total of 926 unique journal titles were cited.

Table 3 shows title distribution by zone. Only 12 ti-

Table 2
Cited format types by publication year periods

Publication year	Books		Government documents		Internet		Journal articles		Miscellaneous		Total citations	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1997-year*	174	11.9%	96	18.2%	17	51.5%	695	15.1%	133	27.0%	1,115	15.7%
1991-1996	770	52.5%	348	65.9%	11	33.3%	2,563	55.7%	271	55.0%	3,963	55.7%
1981-1990	369	25.2%	60	11.4%	1	3.0%	1,084	23.6%	59	12.0%	1,573	22.1%
1971-1980	74	5.0%	8	1.5%	0	0	197	4.3%	12	2.4%	291	4.1%
1961-1970	52	3.5%	11	2.1%	0	0	37	0.8%	0	0	100	1.4%
Pre-1961	28	1.9%	3	0.6%	0	0	22	0.5%	5	1.0%	58	0.8%
Not available	0	0	2	0.4%	4	12.1%	0	0	13	2.6%	19	0.3%
	1,467	100.0%	528	100.1%†	33	99.9%†	4,598	100.0%	493	100.0%	7,119	100.1%†

* Includes in press materials.

† Does not equal 100.0% due to rounding.

Table 4
Distribution and database coverage of cited journals in Zones 1 and 2

Cited journal	Total citations	Bibliographic databases								OCLC Article-First
		CINAHL	PubMed	EBSCO NAH Comp.	EMBASE	Health Ref. Center	PsycINFO	SCI	SSCI	
Zone 1										
1. J Emerg Nurs	217	5	3	0	0	0	0	0	0	X
2. Ann Emerg Med	215	4	4	0	4	0	0	5	1	X
3. BMJ	174	0	4	3	2	2	0	5	1	X
4. J Adv Nurs	143	2	2	3	0	0	0	0	5	X
5. Nurs Times	139	5	4	0	0	3	0	0	0	
6. Accid Emerg Nurs	112	5	4	0	0	0	0	0	0	
7. Nurs Stand	105	5	3	0	0	0	0	0	0	X
8. J Trauma	105	3	4	0	0	0	0	5	1	X
9. JAMA	103	1	3	3	3	5	1	4	1	X
10. N Engl J Med	92	1	4	2	3	3	1	5	1	X
11. Emerg Med J (2001-); continues J Accid Emerg Med	77	4	4	0	4	0	0	5	0	X
12. MMWR Morb Mortal Wkly Rep	73	3	3	5	0	3	0	0	0	X
Zone 1 average database coverage		3.17	3.50	1.33	1.33	1.33	0.17	2.42	0.83	10
Zone 2										
13. Pediatrics	69	1	2	2	2	2	0	5	1	X
14. Br J Nurs	65	5	4	0	0	0	0	0	0	X
15. Emerg Nurs	62	5	3	0	0	0	0	0	0	
16. Lancet	59	1	3	3	3	2	0	5	1	X
17. Prof Nurse	53	5	3	0	0	0	0	0	0	
18. Nursing	48	5	2	3	0	2	0	0	0	X
19. Am J Nurs	40	5	3	4	0	3	0	0	4	X
20. J Allergy Clin Immunol	39	0	2	0	2	0	0	5	0	X
21. Resuscitation	35	0	4	0	4	0	0	5	1	X
22. Chest	34	1	4	0	5	4	0	5	1	X
23. Paediatr Nurs	34	4	5	0	0	0	0	0	0	X
24. Am J Emerg Med	33	4	5	0	4	0	0	5	1	X
25. Heart Lung	32	5	5	0	0	0	0	5	1	X
26. Ann Intern Med	28	1	4	3	4	3	0	5	1	X
27. Nurse Educ Today	26	4	4	0	0	0	0	0	5	X
28. Nurs Res	25	4	4	0	0	0	3	5	5	X
29. J Toxicol Clin Toxicol	22	0	4	0	4	5	0	4	0	X
30. Care Crit Ill	22	5	0	0	4	0	0	0	0	X
31. Pediatr Emerg Care	22	0	4	0	4	0	0	5	1	X
32. Am J Public Health	21	4	4	4	4	4	1	5	5	X
33. J Emerg Med	20	0	5	0	5	0	0	0	0	X
34. Emerg Med Clin North Am	18	4	4	0	4	0	0	5	1	X
35. Nurs Manage	18	5	4	4	0	3	0	0	0	X
36. Acad Emerg Med	17	0	4	0	4	0	0	5	0	
37. J Nurs Scholarsh (2000-); continues Image J Nurs Sch	17	5	4	0	0	4	1	0	0	X
38. Ann Allergy Asthma Immunol	17	2	4	0	4	0	0	5	1	X
39. Injury	16	0	4	0	4	0	0	5	1	X
40. J R Soc Med	16	0	4	0	4	0	0	5	1	X
41. Pediatr Nurs	15	5	4	0	0	4	0	0	0	X
42. Emerg Med	15	4	0	0	0	0	0	0	0	X
43. J Pediatr	15	1	4	0	5	0	0	4	1	X
44. Circulation	15	0	1	0	2	0	0	5	0	X
45. J Clin Nurs	15	3	3	4	0	0	0	0	5	X
46. Br J Psychiatry	15	0	3	0	3	0	3	5	5	X
47. Top Emerg Med	14	5	0	0	0	0	0	0	0	X
48. Nurs Clin North Am	14	5	4	0	0	0	0	0	5	X
49. Nurse Pract	14	5	4	0	0	5	0	0	0	X
50. Pain	14	1	5	0	5	0	3	5	1	X
51. Crit Care Med	14	0	4	0	4	0	0	5	1	X
52. Intensive Crit Care Nurs	14	5	5	0	0	0	0	0	0	X
53. JEMS	13	5	2	0	0	0	0	0	0	X
54. Soc Sci Med	13	2	3	0	3	1	2	0	5	X
55. Arch Intern Med	13	1	4	0	4	3	0	5	1	X
56. Anesthesiology	13	0	2	0	2	0	0	5	1	X
57. Diabetes Care	13	2	4	0	4	0	0	5	1	X
58. Am J Cardiol	13	1	3	0	3	0	0	5	0	X
59. Am J Med	12	0	4	4	5	3	0	4	1	X
60. Crit Care Nurs Clin North Am	12	5	4	0	0	0	0	0	0	X
61. Nurs Manage (London); continues Senior Nurse	12	5	4	0	0	0	0	0	0	X
62. AORN J	12	5	3	0	0	5	0	0	0	
63. J Wound Care	11	5	4	0	0	0	0	0	0	X
64. Psychiatr Serv (1995-); continues Hosp Comm Psych	11	2	3	0	2	0	2	5	5	X
65. CMAJ Can Med Assoc J	11	1	3	3	2	0	0	5	1	X
66. Postgrad Med	11	3	3	4	4	4	0	5	1	

Table 4
Continued

Cited journal	Total citations	Bibliographic databases								OCLC Article-First
		CINAHL	PubMed	EBSCO NAH Comp.	EMBASE	Health Ref. Center	PsycINFO	SCI	SSCI	
67. Arch Pediatr Adolesc Med (1994-); continues Am J Dis Child	11	1	4	0	4	4	0	5	1	X
68. Anesth Analg	10	0	2	0	2	0	0	5	0	X
69. RN	10	4	2	5	0	2	0	0	0	X
70. Crit Care Nurse	10	5	4	0	0	0	0	0	0	X
71. Health Serv J	10	5	5	0	0	0	0	0	0	
72. Community Pract (1998-); continues Health Visit	10	5	0	0	0	0	0	0	0	
73. Br J Fam Plann	10	2	4	0	4	0	0	0	5	X
74. Fast Company	10	0	0	0	0	0	0	0	0	X
75. Emergency	10	5	0	0	0	0	0	0	0	X
76. South Med J	10	0	2	5	2	0	0	2	1	X
77. Int J Trauma Nurs	9	5	4	0	0	0	0	0	0	
78. Anaesthesia	9	0	4	5	0	0	0	4	0	X
79. J Nurs Educ	9	5	5	0	0	0	0	0	5	X
80. Med J Aust	9	0	4	0	3	2	0	5	1	X
81. J Bone Joint Surg (Am)	9	0	4	0	3	0	0	5	1	X
82. J Contin Educ Nurs	9	5	4	0	0	0	0	0	0	X
83. Am J Psychiatry	9	0	3	0	3	3	3	5	5	X
84. Intensive Crit Care Nurs	9	5	5	0	0	0	0	0	0	X
85. Drug Saf	9	0	5	0	5	0	0	5	1	X
86. Arch Surg	9	0	3	0	3	0	0	5	1	X
87. Neurosurgery	9	0	2	0	2	0	0	5	0	X
88. J Am Geriatr Soc	8	1	2	0	2	2	1	5	5	X
89. J Psychosoc Nurs Ment Health Serv	8	5	3	0	0	0	0	0	0	X
90. Am Surg	8	0	4	4	3	0	0	5	1	X
91. Altern Ther Health Med	8	1	3	0	0	0	0	5	1	
92. Hosp Med (London, 1998-); continues Br J Hosp Med	8	2	5	0	4	0	0	0	1	X
93. Neurology	8	0	2	0	2	0	1	5	1	X
94. Med Sci Law	7	0	4	0	0	0	0	5	5	X
95. Pract Midwife (1998-); continues Modern Midwife	7	5	4	0	0	0	0	0	0	
96. Am J Crit Care	7	5	5	0	0	0	0	0	0	
97. Air Med J	7	5	3	0	0	0	0	0	0	X
98. Arch Ophthalmol	7	0	4	0	4	0	0	5	1	X
99. J Nurs Adm	7	4	4	0	4	0	0	0	5	X
100. J Pediatr Surg	7	0	4	0	4	0	0	5	1	X
101. Res Nurs Health	7	5	4	0	0	0	3	5	5	X
102. Sociol Health Ill	7	0	0	3	0	0	0	0	5	X
103. AACN Clin Issues (1995-); continues AACN Clin Issues Crit Care Nurs	7	5	4	0	0	0	0	0	0	
104. ANS: Adv Nurs Sci	7	5	4	0	0	4	3	0	5	X
Zone 2 average database coverage		2.57	3.37	0.65	1.82	0.80	0.28	2.53	1.33	80
Average Zones 1 and 2		2.64	3.39	0.74	1.76	0.87	0.27	2.52	1.27	86.5%

Based on database coverage score: 5 (95%–100%); 4 (75%–94%); 3 (50%–74%); 2 (25%–49%); 1 (1%–24%); 0 (< 1%).

EBSCO NAH Comp. = EBSCO Nursing & Allied Health Collection Comprehensive Edition.

SCI = Science Citation Index.

SSCI = Social Sciences Citation Index.

tles (1.3%) fell into Zone 1, but they accounted for over 33.8% of all journal citations. An additional 92 titles (9.9%) fell into Zone 2 and accounted for 34.3% of all journal references; the list of items in Zone 2 was extended because several journals tied and therefore were included in the cutoff. The rest of the citations (31.9%) were scattered among the remaining 822 journals (88.8%). Only 1 reference appeared for 522 titles; 2 appeared for 133 titles. The overview article shows how the number of titles in the zones compares with the literature of other nursing disciplines [28].

Two of the Zone 1 titles, *Journal of Emergency Nursing* and *Accident and Emergency Nursing*, were source journals for the study. The other two source journals, *Emergency Nurse* and *IJTN*, appeared in Zone 2, ranked fifteenth and seventy-seventh, respectively. The low

number of references for *IJTN* might be related to its quarterly publication schedule. The journals in Zone 1 were a mix of emergency and critical care medicine, emergency medical technology, general nursing, and general medical titles.

Table 4 shows indexing coverage scores for each Zone 1 and 2 journal in nine of the databases. No one indexing source provided comprehensive indexing coverage of the Zone 1 titles. PubMed/MEDLINE provided the highest overall indexing score for Zone 1 and 2 titles but did not offer complete coverage for any Zone 1 title. CINAHL was second in Zone 1 coverage but offered complete coverage for key nursing titles. CINAHL provided complete coverage for four of the Zone 1 titles, including two of the source journals, *Accident and Emergency Nursing* and *Journal of Emergency*

Nursing. CINAHL was the only source to completely cover the two source journals that appeared in Zone 2. EBSCO Health Source Plus and EBSCO Health Business Fulltext were the only complete coverage sources for the *MMWR*.

For Zone 2 titles, PubMed/MEDLINE again offered the highest overall score. CINAHL scored second but provided complete coverage of many of the nursing and emergency medical technology titles. The medical specialty journals generally received little or no coverage in CINAHL, bringing down its total score. The total indexing coverage scores given in Table 4 indicate the relative indexing coverage for all Zone 1 and 2 titles in each of the databases searched.

DISCUSSION

Many of the cited references analyzed in the study (nearly 65%) were to journal articles, a much lower percentage than in many of the other disciplines studied. Similarly, most of all analyzed references (nearly 93%) were to materials published since 1980, indicating a strong reliance on more recent literature, typical of health sciences disciplines in general. Consistent with Bradford's Law of Scattering, the study's cited journal titles showed a wide distribution among a fairly small core, with about 11% of the titles accounting for 67% of all the citations. Emergency care requires not only knowledge of the emergency literature, but also of significant developments published in general medical and nursing journals, cardiology, trauma, and pediatrics journals [11]. Of the 12 indexes consulted, PubMed/MEDLINE provided the most complete coverage. PubMed/MEDLINE indexes all full-length articles and research reports as well as most letters, editorials, and commentaries. CINAHL ranked second but provided the most complete coverage of nursing and emergency medical technology publications. While OCLC ArticleFirst covers more titles than CINAHL, its usefulness is limited by the lack of abstracts and subject indexing.

The coverage of MEDLINE indexing of the emergency medicine literature was reviewed prior to the advent of PubMed. In 1994, Vilke et al. assessed MEDLINE's coverage of the papers in *Journal of Emergency Medicine (JEM)* over a 10-year period [24]. In that time, 1,178 abstracts and 843 original contributions were included in *JEM*. Results showed 98.5% of all original work published in *JEM* and 99.74% of all abstracts referenced in *JEM* were found in MEDLINE [39]. However, PubMed/MEDLINE does not cover many of the international and non-English-language emergency medicine journals. In a study comparing hand-searching to MEDLINE searching of the emergency medicine literature, only 18 (29.0%) of the 62 journals identified by the researchers as important to emergency medicine were indexed by PubMed/MEDLINE [39]. For searchers needing comprehensive coverage of the literature referenced by emergency nurses, PubMed/MEDLINE appears to be the index of first choice. For

the core literature of emergency nursing, especially the source journals, CINAHL is the best choice.

CONCLUSION

The results of this study show that the most current journal literature is of primary importance to the emergency nursing discipline. The multidisciplinary nature of emergency nursing makes the relatively wide dispersion of journals unsurprising. Analysis of indexing coverage of the Zone 1 journals showed that PubMed/MEDLINE provides the most coverage, while analysis of the coverage of the source journals in emergency nursing shows CINAHL to be the most comprehensive.

These results benefit librarians and emergency nurses seeking to explore the breadth of emergency nursing literature. Expanding nursing collections to include more of the core emergency medicine literature may guide users to relevant materials. CINAHL may wish to index more of the emergency medicine literature to increase the database's utility for nurses and EMS personnel, while PubMed/MEDLINE could benefit from more in-depth coverage of nursing publications.

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