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INTRODUCTION

- The volume and complexity of health science related simulation literature has dramatically increased over the last 10 years
- There is an abundance of information that relates to simulation education and research, but the sheer volume is daunting to both novice instructors who are attempting to build a knowledge base as well as experienced practitioners who are required to evaluate the literature for publication and research purposes
- EndNote ® 9.0/X (Thompson ResearchSoft) is an industry standard software tool for publishing and managing bibliographies on the Windows and Macintosh® desktop
- EndNote is the preferred reference management system and is supported through the Health Sciences Library System (HSLS) of the University of Pittsburgh

METHODS

1. The Ovid® (Ovid Technologies, Inc) search system was used to query the following citation databases: MEDLINE®, Ovid MEDLINE® Daily Update®, Ovid MEDLINE® In-Process & Other Non-Indexed Citations, Ovid OLDMEDLINE®, Cumulative Index to Nursing & Allied Health (CINAHL), Health and Psychosocial Instruments (HAPI) and Journals@Ovid Full Text (OVFT)
2. MeSH search terms were used including: nursing, nurses, medicine, physicians, dentists, pharmacists, computer simulation; patient simulation; education, nursing; education, nursing, baccalaureate; students, nursing; education, medical; students, medical; clinical competence; teaching; manikins; anesthesiology; research; research design; competency-based education; human patient simulator; patient safety; medical errors; safety; safety management
3. Additional terms were used as 'keywords' including "simulation" "nursing simulation" "dental simulation" "surgical simulation" and "medical simulation" with Boolean operators used to combine MeSH terms e.g. "simulation and education, nursing" or "simulation and research"
4. All references were downloaded using the Ovid® Results Manager as a direct export function with import filters selected according to database used
5. References are being evaluated on an ongoing basis with duplicate, near duplicate, non-simulation and foreign language citations censured.
6. Full-text PDFs corresponding to the EndNote citations are being compiled into a resource library. This PDF library will be available to University of Pittsburgh and University of Pittsburgh Medical Center simulation researchers and educators

RESULTS

Table 1: EndNote ® X (Thompson ResearchSoft) software tool has been used to develop the PERP database. After removal of duplicates, foreign language citations, and non-simulation references- a total of 1787 valid citations were cross-referenced using the 'Reference Search' feature. The cross referencing strategy compared the citation intersection of professional domain areas with frequently cited keywords in the simulation literature.

N= 1787	Simulation	Safety	Virtual Reality	Education	Research	Validity	Reliability	Competence	[1]SP	[2]CRM	Team Training
Nurse or Nursing	352	332	333	347	340	330	329	338	331	331	331
Nursing student	56	6	2	57	37	2	3	17	4	0	0
Nurse Anesthetist or Nurse Practitioner	33	25	23	33	29	25	24	29	23	25	23
Physician or Medicine	680	601	605	661	635	607	606	630	611	594	595
Resident	159	8	32	142	65	19	22	91	23	7	1
Medical student	170	4	20	170	74	20	26	11	35	1	0
Surgeon or Surgery	437	426	429	433	429	426	424	429	423	423	423
Anesthesiologist or Anesthesiology	133	127	127	130	128	126	126	129	125	126	125
Emergency Medicine	58	7	7	28	18	3	6	28	6	5	2
Dentist or Dental Medicine	51	4	13	38	21	4	6	20	11	5	4
Pharmacist or Pharmacology	20	15	14	19	18	14	14	17	15	14	14
Critical Care Medicine	22	2	1	22	14	1	0	14	0	2	1

1: SP = Simulated Patient; 2: CRM = Crisis resource management or crisis management

DISCUSSION

- We initially identified a total of 2061 references in our PERP database. After removal of all duplicates, foreign language citations and references incorrectly categorized during download, our current N =1787 of valid citations within the PERP database
- Full text PDF versions of available citations (N=1265 or 71% of the current database) have been compiled in a separate file with a structured naming hierarchy mirroring the EndNote™ display (Primary author last name, year, first four words of title) to allow rapid access during literature review
- Qualification for access to the databases will require verification of a valid account in the University of Pittsburgh Health Sciences Library System (HSLS). WISER administration will allow access via our password protected, web-based Simulation Information Management System (SIMS)
- Total time spent in development of the database to date is now over 600 hours with as many as 20 hours/wk of personnel time dedicated to the project during initial development
- A limiting factor in generation of research and scholarship is the ability to rapidly identify, search and utilize key literature. We plan to utilize the database to accelerate the scholarly productivity of our simulation team and to allow simulation novices to rapidly develop familiarity with the relevant literature