Methodical Literature Searching Strategy – Example

Research question

Is there a relationship between **sleep habits** and **academic performance** in **university students**?

Database search strategy

Table 1: A simple concept map

Concept Set 1	Concept Set 2	Concept Set 3
"sleep* habit*"	"academic performance"	"university student*"
"sleep* disorder*"	"academic achievement"	student*
insomnia*	Progression	undergraduate
parasomnia*	Retention	postgraduate
"sleep* depriv*"	Completion	"higher education"

Table 2: A version using PICO for health-based research

Population	Intervention	Comparator	Outcome
"university student*"	"sleep* habit*"	n/a	"academic performance"
student*	"sleep* disorder*"	n/a	"academic achievement"
undergraduate	insomnia*	n/a	Progression
postgraduate	parasomnia*	n/a	Retention
"higher education"	"sleep* depriv*"	n/a	Completion

Databases selected

Database Name	Coverage, date range and size
Academic Search Complete	Multidisciplinary, 1887 to date, over 5,500 indexed journals.
Cumulative Index of Nursing and Allied Health Literature (CINAHL)	Nursing and allied health, 1982 to date, 2,737 indexed journals.

Inclusion/exclusion criteria

1	Peer reviewed articles
2	Published in last five years
3	Written in the English language

Search results

Academic Search Complete

Search no.	Search Term	Results in Academic Search Complete
S1	"sleep* habit*"	1,906
S2	"sleep* disorder*"	37,636
S3	insomnia*	18,824
S4	parasomnia*	975
S5	"sleep* depriv*"	8,836
S6	S1 OR S2 OR S3 OR S4 OR S5	59,324
S7	"academic performance"	47,867
S8	"academic achievement"	64,913
S9	progression	335,987

Search no.	Search Term	Results in Academic Search Complete
S10	retention	225,561
S11	completion	97,485
S12	S7 OR S8 OR S9 OR S10 OR S11	722,527
S13	"university student*"	89,766
S14	student*	1,226,110
S15	undergraduate	90,450
S16	postgraduate	75,344
S17	"higher education"	393,459
S18	S13 OR S14 OR S15 OR S16 OR S17	1,542,922
S19	S6 AND S12 AND S18	402
S20	Limiters - Peer Reviewed; Published Date: 20170301-20220331; Language: English	179

CINAHL

Search no.	Search Term	Results in CINAHL
S1	(MH "Sleep+")	30,273
S2	"sleep* habit*"	1,052
S3	"sleep* disorder*"	18,597
S4	insomnia*	13,283

Search no.	Search Term	Results in CINAHL
S5	parasomnia*	1,434
S6	"sleep* depriv*"	5,058
S7	S1 OR S2 OR S3 OR S4 OR S5 OR S6	55,082
S8	(MH "Academic Performance+")	14,509
S9	"academic performance"	13,134
S10	"academic achievement"	15,806
S11	progression	131,452
S12	retention	40,950
S13	completion	33,727
S14	S8 OR S9 OR S10 OR S11 OR S12 OR S13	223,626
S15	(MH "Students, College")	27,029
S16	"university student*"	21,039
S17	student*	261,424
S18	undergraduate	28,389
S19	postgraduate	6,702
S20	"higher education"	10,736
S21	S15 OR S16 OR S17 OR S18 OR S19 OR S20	276,017
S22	S6 AND S12 AND S18	248

Search no.	Search Term	Results in CINAHL
S21	Limiters - Peer Reviewed; Published Date: 20170301- 20220331; Language: English	127

Results following expanded searches, screening, and deduplication

Database results after screening and deduplication	21
Results from 'citation searching', 'hand searching' and 'grey literature'	10
Total results	31