

Table 1 Search strategies for databases

1.Database: PubMed Number of results:146 Date of Update Search: February 10th, 2025		
Search limit: a. Publication Dates: 2009-05-01 - 2024-12-31 b. Humans or Animal: Human c. Language: English, Chinese		
NO.	Search strategies	Results
#1	student*[Title/Abstract] OR undergrad*[Title/Abstract] OR trainee*[Title/Abstract] OR pupil*[Title/Abstract] OR educat*[Title/Abstract] OR intern*[Title/Abstract] OR pre-registrat*[Title/Abstract] OR “pre registrat*” [Title/Abstract]	2,372,640
#2	nurs*[Title/Abstract]	573,734
#3	"Students, Nursing"[Mesh] OR "Education, Nursing"[Mesh]	105,296
#4	(#1 AND #2) OR #3	208,941
#5	"Clinical Clerkship"[Mesh] OR ("Hospitals"[Mesh]) OR "Preceptorship"[Mesh]	343,415
#6	"Clinical practice"[Title/Abstract] OR "clinical training"[Title/Abstract] OR placement*[Title/Abstract] OR clerkship[Title/Abstract] OR preceptorship[Title/Abstract] OR rotation*[Title/Abstract] OR practicum*[Title/Abstract] OR internship[Title/Abstract] OR "clinical setting*" [Title/Abstract] OR "clinical environment"[Title/Abstract] OR "clinical education"[Title/Abstract] OR hospital*[Title/Abstract] OR "clinical context*" [Title/Abstract]	2,487,153
#7	#5 OR #6	2,595,302
#8	"transition shock"[Title/Abstract] OR "reality shock"[Title/Abstract] OR "emotional shock"[Title/Abstract] OR "culture shock"[Title/Abstract] OR "role adaptation"[Title/Abstract] OR "role transition"[Title/Abstract] OR "stressful transition"[Title/Abstract] OR "transitional challenges"[Title/Abstract] OR "real-world shock"[Title/Abstract] OR "maladaptive transitions"[Title/Abstract] OR "transition experience"[Title/Abstract] OR "transfer* shock"[Title/Abstract] OR "shock of reality"[Title/Abstract] OR "shock reaction"[Title/Abstract]	1,473
#9	(#4 AND #7 AND #8) AND (2009/5/1:2024/12/31[pdat]) AND (chinese[Filter] OR english[Filter]) AND	146

	(humans[Filter])	
2.Database: Scopus Number of results:287 Date of Update Search: February 10th, 2025		
Search limit: a. Publication Years: 2009-2024 b. Language: English, Chinese		
NO.	Search strategies	Results
#1	TITLE-ABS-KEY(student*) OR TITLE-ABS-KEY(undergrad*) OR TITLE-ABS-KEY(trainee*) OR TITLE-ABS-KEY(pupil*) OR TITLE-ABS-KEY(educat*) OR TITLE-ABS-KEY(intern*) OR TITLE-ABS-KEY(pre-registrat*) OR TITLE-ABS-KEY("pre registrat*")	9,042,349
#2	TITLE-ABS-KEY (nurs*)	1,050,651
#3	#1 AND #2	343,327
#4	TITLE-ABS-KEY("clinical practice") OR TITLE-ABS-KEY("clinical training") OR TITLE-ABS-KEY(placement*) OR TITLE-ABS-KEY(clerkship) OR TITLE-ABS-KEY(preceptorship) OR TITLE-ABS-KEY (rotation*) OR TITLE-ABS-KEY(practicum*) OR TITLE-ABS-KEY(internship) OR TITLE-ABS-KEY("clinical setting*") OR TITLE-ABS-KEY("clinical environment") OR TITLE-ABS-KEY("clinical education") OR TITLE-ABS-KEY (hospital*) OR TITLE-ABS-KEY ("clinical context*")	4,978,153
#5	TITLE-ABS-KEY("transition shock") OR TITLE-ABS-KEY("reality shock") OR TITLE-ABS-KEY ("emotional shock") OR TITLE-ABS-KEY("culture shock") OR TITLE-ABS-KEY("role adaptation") OR TITLE-ABS-KEY ("role transition") OR TITLE-ABS-KEY("stressful transition") OR TITLE-ABS-KEY("transitional challenges") OR TITLE-ABS-KEY("real-world shock") OR TITLE-ABS-KEY("maladaptive transitions") OR TITLE-ABS-KEY("transition experience") OR TITLE-ABS-KEY("transfer* shock") OR TITLE-ABS-KEY("shock of reality") OR TITLE-ABS-KEY("shock reaction")	4,969
#6	(#3 AND #4 AND #5) AND (PUBYEAR > 2008 AND PUBYEAR < 2025) AND (LIMIT-TO (LANGUAGE, "English") OR LIMIT-TO (LANGUAGE, "Chinese"))	287
3.Database: Web of Science Number of results:355 Date of Update Search: February 10th, 2025		

Search limit: a. Publication Years: 2009-2024		
b. Language: English, Chinese		
NO.	Search strategies	Results
#1	TS=(student*) OR TS=(undergrad*) OR TS=(trainee*) OR TS=(pupil*) OR TS=(educat*) OR TS=(intern*) OR TS=(pre-registrat*) OR TS=(“pre registrat”*)	12,945,834
#2	TS=(nurs*)	1,460,253
#3	#1 AND #2	430,919
#4	TS=("Clinical practice") OR TS=("clinical training") OR TS=(placement*) OR TS=(clerkship) OR TS=(preceptorship) OR TS=(rotation*) OR TS=(practicum*) OR TS=(internship) OR TS=("clinical setting*") OR TS=("clinical environment") OR TS=("clinical education") OR TS=(hospital*) OR TS=("clinical context*")	7,481,724
#5	TS=("transition shock") OR TS=("reality shock") OR TS=("emotional shock") OR TS=("culture shock") OR TS=("role adaptation") OR TS=("role transition") OR TS=("stressful transition") OR TS=("transitional challenges") OR TS=("real-world shock") OR TS=("maladaptive transitions") OR TS=("transition experience") OR TS=("transfer* shock") OR TS=("shock of reality") OR TS=("shock reaction")	5,651
#6	#3 AND #4 AND #5	510
#7	#6 AND (2009 OR 2010 OR 2011 OR 2012 OR 2013 OR 2014 OR 2015 OR 2016 OR 2017 OR 2018 OR 2019 OR 2020 OR 2021 OR 2022 OR 2023 OR 2024) (Publication Years)	379
#8	#7 AND (English or Chinese) (Languages)	355
4.Database: Cochrane Library Number of results:7 Date of Update Search: February 10th, 2025		
Search limit: a. Publication Dates: 2009-05-01 - 2024-12-31		
NO.	Search strategies	Results
#1	(student*):ti,ab,kw OR (undergrad*):ti,ab,kw OR (trainee*):ti,ab,kw OR (pupil*):ti,ab,kw OR (educat*):ti,ab,kw OR (intern*):ti,ab,kw OR (pre-registrat*):ti,ab,kw OR (pre NEXT registrat*):ti,ab,kw	260,666
#2	(nurs*):ti,ab,kw	61,966
#3	#1 AND #2	21,120

#4	MeSH descriptor: [Students, Nursing] explode all trees	920
#5	MeSH descriptor: [Education, Nursing] explode all trees	1,314
#6	#3 OR #4 OR #5	21,120
#7	("Clinical practice"):ti,ab,kw OR ("clinical training"):ti,ab,kw OR (placement*):ti,ab,kw OR (clerkship):ti,ab,kw OR (preceptorship):ti,ab,kw OR (rotation*):ti,ab,kw OR (practicum*):ti,ab,kw OR (internship):ti,ab,kw OR (clinical NEXT setting*):ti,ab,kw OR ("clinical environment"):ti,ab,kw OR ("clinical education"):ti,ab,kw OR (hospital*):ti,ab,kw OR (clinical NEXT context*):ti,ab,kw	320,646
#8	MeSH descriptor: [Clinical Clerkship] explode all trees	213
#9	MeSH descriptor: [Preceptorship] explode all trees	52
#10	MeSH descriptor: [Hospitals] explode all trees	5,967
#11	#7 OR #8 OR #9 OR #10	321,014
#12	("transition shock"):ti,ab,kw OR ("reality shock"):ti,ab,kw OR ("emotional shock"):ti,ab,kw OR ("culture shock"):ti,ab,kw OR ("role adaptation"):ti,ab,kw OR ("role transition"):ti,ab,kw OR ("stressful transition"):ti,ab,kw OR ("transitional challenges"):ti,ab,kw OR ("real-world shock"):ti,ab,kw OR ("maladaptive transitions"):ti,ab,kw OR ("transition experience"):ti,ab,kw OR (transfer* NEXT shock):ti,ab,kw OR ("shock of reality"):ti,ab,kw OR ("shock reaction"):ti,ab,kw	72
#13	#6 AND #11 AND #12 with Cochrane Library publication date Between May 2009 and Dec 2024	7
5.Database: ScienceDirect Number of results:11 Date of Update Search: February 11th, 2025		
Search limit: a. Publication Years: 2009-2024		
NO.	Search strategies	Results
#1	Title, abstract, keywords:(“nursing students” OR “nursing interns” OR “Pupil Nurses”) AND (“clinical practice” OR “clinical placement” OR “clinical practicum”) AND (“transition shock” OR “reality shock” OR “transition experience”)	11

	Max 8 Boolean connectors Wildcards not supported	
6.Database: Embase Number of results:181		
Search limit: a. Publication Years: 2009-2024 b. Humans or Animal: Human c. Language: English, Chinese		
NO.	Search strategies	Results
#1	'nursing student'/exp	36,537
#2	'nursing education'/exp	101,752
#3	student*:ti,ab,kw OR undergrad*:ti,ab,kw OR trainee*:ti,ab,kw OR pupil*:ti,ab,kw OR educat*:ti,ab,kw OR intern*:ti,ab,kw OR 'pre registrat*':ti,ab,kw	3,226,975
#4	nurs*:ti,ab,kw	689,402
#5	#3 AND #4	198,770
#6	#1 OR #2 OR #5	257,318
#7	'clinical practice':ti,ab,kw OR 'clinical training':ti,ab,kw OR placement*:ti,ab,kw OR clerkship:ti,ab,kw OR preceptorship:ti,ab,kw OR rotation*:ti,ab,kw OR practicum*:ti,ab,kw OR internship:ti,ab,kw OR 'clinical setting*':ti,ab,kw OR 'clinical environment':ti,ab,kw OR 'clinical education':ti,ab,kw OR hospital*:ti,ab,kw OR 'clinical context*':ti,ab,kw	3,737,457
#8	'clinical education'/exp	18,319
#9	'hospital'/exp	1,592,843
#10	#7 OR #8 OR #9	4,424,643
#11	'transition shock':ti,ab,kw OR 'reality shock':ti,ab,kw OR 'emotional shock':ti,ab,kw OR 'culture shock':ti,ab,kw OR 'role adaptation':ti,ab,kw OR 'role transition':ti,ab,kw OR 'stressful transition':ti,ab,kw OR 'transitional challenges':ti,ab,kw OR 'real-world shock':ti,ab,kw OR 'maladaptive transitions':ti,ab,kw OR 'transition experience':ti,ab,kw OR 'transfer* shock':ti,ab,kw OR 'shock of reality':ti,ab,kw OR 'shock reaction':ti,ab,kw	1,739
#12	#6 AND #10 AND #11	249

#13	#12 AND ([chinese]/lim OR [english]/lim) AND [humans]/lim AND [2009-2024]/py	181
7.Database: ProQuest Number of results:27 Date of Update Search: February 11th, 2025		
Search limit: a. Publication Dates: 2009-05-01 - 2024-12-31 b. Language: English, Chinese		
NO.	Search strategies	Results
#1	title (student* OR undergrad* OR trainee* OR pupil* OR educat* OR intern* OR pre-registrat* OR “pre registrat*”) OR abstract (student* OR undergrad* OR trainee* OR pupil* OR educat* OR intern* OR pre-registrat* OR “pre registrat*”)	773,204
#2	title(nurs*) OR abstract(nurs*)	67,252
#3	#1 AND #2	22,065
#4	title ("clinical practice" OR "clinical training" OR placement* OR clerkship OR preceptorship OR rotation* OR practicum* OR internship OR "clinical setting*" OR "clinical environment" OR "clinical education" OR hospital* OR "clinical context*") OR abstract ("clinical practice" OR "clinical training" OR placement* OR clerkship OR preceptorship OR rotation* OR practicum* OR internship OR "clinical setting*" OR "clinical environment" OR "clinical education" OR hospital* OR "clinical context*")	473,472
#5	title ("transition shock" OR "reality shock" OR "emotional shock" OR "culture shock" OR "role adaptation" OR "role transition" OR "stressful transition" OR "transitional challenges" OR "real-world shock" OR "maladaptive transitions" OR "transition experience" OR "transfer* shock" OR "shock of reality" OR "shock reaction") OR abstract ("transition shock" OR "reality shock" OR "emotional shock" OR "culture shock" OR "role adaptation" OR "role transition" OR "stressful transition" OR "transitional challenges" OR "real-world shock" OR "maladaptive transitions" OR "transition experience" OR "transfer* shock" OR "shock of reality" OR "shock reaction")	455
#6	#3 AND #4 AND #5	27

8.Database: PsycInfo Number of results:112 Date of Update Search: February 11th, 2025		
Search limit: a. Publication Dates: 2009-05-01 - 2024-12-31 b. Humans or animal: Human c. Language: English, Chinese		
NO.	Search strategies	Results
#1	TX (student* OR undergrad* OR trainee* OR pupil* OR educat* OR intern* OR pre-registrat* OR “pre registrat*”)	2,688,224
#2	TX nurs*	220,312
#3	#1 AND #2	121,035
#4	TX ("clinical practice" OR "clinical training" OR placement* OR clerkship OR preceptorship OR rotation* OR practicum* OR internship OR "clinical setting*" OR "clinical environment" OR "clinical education" OR hospital* OR "clinical context*")	719,872
#5	TX ("transition shock" OR "reality shock" OR "emotional shock" OR "culture shock" OR "role adaptation" OR "role transition" OR "stressful transition" OR "transitional challenges" OR "real-world shock" OR "maladaptive transitions" OR "transition experience" OR "transfer* shock" OR "shock of reality" OR "shock reaction")	1,863
#6	#3 AND #4 AND #5	112
9.Database: CINAHL Plus with Full Text Number of results:158 Date of Update Search: February 11th, 2025		
Search limit: a. Publication Dates: 2009-05-01 - 2024-12-31 b. Humans or animal: Human c. Language: English, Chinese		
NO.	Search strategies	Results
#1	MH "Students, Nursing"	38,325
#2	MH "Education, Nursing"	53,834

#3	TI (student* OR undergrad* OR trainee* OR pupil* OR educat* OR intern* OR pre-registrat* OR “pre registrat*”) OR AB (student* OR undergrad* OR trainee* OR pupil* OR educat* OR intern* OR pre-registrat* OR “pre registrat*”)	861,039
#4	TI nurs* OR AB nurs*	600,397
#5	#3 AND #4	153,744
#6	#1 OR #2 OR #5	191,277
#7	MH "Education, Clinical"	12,826
#8	MH "Hospitals"	69,369
#9	MH "Preceptorship"	5,238
#10	TI ("clinical practice" OR "clinical training" OR placement* OR clerkship OR preceptorship OR rotation* OR practicum* OR internship OR "clinical setting*" OR "clinical environment" OR "clinical education" OR hospital* OR "clinical context*") OR AB ("clinical practice" OR "clinical training" OR placement* OR clerkship OR preceptorship OR rotation* OR practicum* OR internship OR "clinical setting*" OR "clinical environment" OR "clinical education" OR hospital* OR "clinical context*")	754,599
#11	#7 OR #8 OR #9 OR #10	790,843
#12	MH "Reality Shock"	245
#13	TI ("transition shock" OR "reality shock" OR "emotional shock" OR "culture shock" OR "role adaptation" OR "role transition" OR "stressful transition" OR "transitional challenges" OR "real-world shock" OR "maladaptive transitions" OR "transition experience" OR "transfer* shock" OR "shock of reality" OR "shock reaction") OR AB ("transition shock" OR "reality shock" OR "emotional shock" OR "culture shock" OR "role adaptation" OR "role transition" OR "stressful transition" OR "transitional challenges" OR "real-world shock" OR "maladaptive transitions" OR "transition experience" OR "transfer* shock" OR "shock of reality" OR "shock reaction")	1,279
#14	#12 OR #13	1,421

#15	#6 AND #11 AND #14	158
10.Database: Google Scholar Number of results:16,200 Date of Update Search: February 12th, 2025		
Search limit: a. Publication Years: 2009-2024		
NO.	Search strategies	Results
#1	((student* OR undergrad* OR trainee* OR pupil* OR educat* OR intern* OR pre-registrat* OR “pre registrat*”) AND nurs*) AND ("clinical practice" OR "clinical training" OR placement* OR clerkship OR preceptorship OR rotation* OR practicum* OR internship OR "clinical setting*" OR "clinical environment" OR "clinical education" OR hospital* OR "clinical context*") AND ("transition shock" OR "reality shock" OR "emotional shock" OR "culture shock" OR "role adaptation" OR "role transition" OR "stressful transition" OR "transitional challenges" OR "real-world shock" OR "maladaptive transitions" OR "transition experience" OR "transfer* shock" OR "shock of reality" OR "shock reaction") Search limit:2009-2024	16,200 (limit to the first 20 pages)
11.Database: OpenGey Number of results:0 Date of Update Search: February 12th, 2025		
Search limit: None		
NO.	Search strategies	Results
#1	((student* OR undergrad* OR trainee* OR pupil* OR educat* OR intern* OR pre-registrat* OR “pre registrat*”) AND nurs*) AND ("clinical practice" OR "clinical training" OR placement* OR clerkship OR preceptorship OR rotation* OR practicum* OR internship OR "clinical setting*" OR "clinical environment" OR "clinical education" OR hospital* OR "clinical context*") AND ("transition shock" OR "reality shock" OR "emotional shock" OR "culture shock" OR "role adaptation" OR "role transition" OR "stressful transition" OR "transitional challenges" OR "real-world shock" OR "maladaptive transitions" OR "transition experience" OR "transfer* shock" OR "shock of reality" OR "shock reaction")	0

12.Database: CNKI Number of results:72 Date of Update Search: February 12th, 2025		
Search limit: a. Publication Dates: 2009-05-01 - 2024-12-31		
NO.	Search strategies	Results
#1	TKA='护理学生'+ '护理专业学生'+ '护生'+ '护理本科生'+ '护理专业本科生'+ '实习护士'+ '护理专业实习生'+ '护理实习生' AND TKA= '临床实习'+ '实习'+ '毕业实习'+ '临床学习'+ '临床实践'+ '医院实习' AND TKA='转型冲击'+ '现实冲击'+ '角色适应'+ '冲击体验'+ '角色转型'+ '文化休克'	72
13.Database: Wan Fang Number of results:89 Date of Update Search: February 12th, 2025		
Search limit: a. Publication Years: 2009-2024		
NO.	Search strategies	Results
#1	(主题:("护理学生" OR "护理专业学生" OR "护生" OR "护理本科生" OR "护理专业本科生" OR "实习护士" OR "护理专业实习生" OR "护理实习生") and 主题:("临床实习" OR "实习" OR "毕业实习" OR "临床学习" OR "临床实践" OR "医院实习") and 主题:("转型冲击" OR "现实冲击" OR "角色适应" OR "冲击体验" OR "角色转型" OR "文化休克")) and 发表时间:2009-2024	89
14.Database: SinoMed Number of results:73 Date of Update Search: February 12th, 2025		
Search limit: a. Publication Years: 2009-2024 b. Humans or Animal: Human		
NO.	Search strategies	Results
#1	"学生, 护理"[不加权:扩展]	24,595

#2	"教育, 护理"[不加权:扩展]	38,897
#3	"护理学生"[常用字段:智能] OR "护理专业学生"[常用字段:智能] OR "护生"[常用字段:智能] OR "护理本科生"[常用字段:智能] OR "护理专业本科生"[常用字段:智能] OR "实习护士"[常用字段:智能] OR "护理专业实习生"[常用字段:智能] OR "护理实习生"[常用字段:智能]	82,986
#4	#1 OR #2 OR #3	68,088
#5	"临床实习"[不加权:扩展]	29,864
#6	"导师制"[不加权:扩展]	8,944
#7	"医院"[不加权:扩展]	84,991
#8	"临床实习"[常用字段:智能] OR "实习"[常用字段:智能] OR "毕业实习"[常用字段:智能] OR "临床学习"[常用字段:智能] OR "临床实践"[常用字段:智能] OR "医院实习"[常用字段:智能]	230,991
#9	#5 OR #6 OR #7 OR #8	591,973
#10	"转型冲击"[常用字段:智能] OR "现实冲击"[常用字段:智能] OR "角色适应"[常用字段:智能] OR "冲击体验"[常用字段:智能] OR "角色转型"[常用字段:智能] OR "文化休克"[常用字段:智能]	1,162
#11	((#4) AND (#9) AND (#10)) AND (人类[特征词]) AND 2009-2024[日期]	73

Table 2 Data Extraction Form

NO.	Author(s)	Year of publication	Country of origin	Aim	Study design	Settings	Population and sample size	Assessment tools	Influencing factors	Outcomes	Intervention strategies	Key findings

Note:

(1) population and sample size included social demographic of the participants and sample size;

- (2) intervention strategies were defined as measures or programs provided to reduce participants' transition shock;
- (3) outcomes referred to the variables or items influenced by transition shock;
- (4) assessment tools were specific tools or scales used to assess transition shock of nursing students;
- (5) setting referred to the specific location where the study was conducted;
- (6) country of origin referred to which country the study was conducted;
- (7) key findings referred to other information related to the review questions and objectives;
- (8) influencing factors referred to the variables or items that affected transition shock of nursing students.