Supplemental Digital Appendix 1

Search and Screening Strategy

SEARCH STRATEGY

Our search strategy was developed as a collaboration between the authors and a research librarian at NUI Galway, Ireland. Bearing in mind our awareness of a lack of literature looking at the relationship between clinical teacher identity and clinical workplaces, our approach was to maximise the sensitivity of our search from the outset. We recognised that this would lead to a very large number of hits, but we hoped by being sensitive and inclusive we would capture the majority of relevant literature. We developed the search terms and strategy using the following steps:

Step 1: We used the research question to devise an initial set of search terms and combinations of terms.

Step 2: We carried out a pilot search of two databases namely Scopus and Web of Science. We iteratively developed and elaborated the search terms and the associated combinations based on our experience of using these two databases.

Step 3: We assessed the quality of the hits achieved from the two databases. We carried out a search of the reference lists of recent papers in the pilot search dataset to see whether there were studies that had been missed in our pilot survey. The citation survey revealed a number of studies that explored the relationship between clinical teacher identity/role and workplace context but had not been labelled as being about teacher identity. We also found examples of studies that were labelled as faculty development but in reality were about clinical teacher identity and its relationship with clinical workplaces.

- We included synonyms for clinical teacher, clinical instructor et cetera in our search strategy, which greatly increased the sensitivity of our search.
- Despite the fact that we specifically did not want to look at the relationship between faculty development and clinical teacher identity formation we included search terms "faculty" or "teacher" development in our search strategy because they added significantly to the sensitivity of our search strategy. We used the screening process to remove studies about the relationship between teacher identity and participation in faculty development.

Step 4: Context, particularly the clinical workplace context, represented the main site of interest in this scoping review. However, in our pilot searches it became clear that using context terms such as "workplace", "hospital" et cetera were too specific, leading to a marked reduction in the sensitivity of our search strategy. We therefore omitted search terms in relation to context in our search strategy and used our screening process to remove studies that explored the development of clinical teacher identity without referencing the influence of context.

Step 5: It became clear to us that the term "role" was used as a synonym for identity in some papers and we therefore deliberately included the term "teacher role" in our search strategy.

Supplemental digital content for Cantillon P, Dornan T, De Grave W. Becoming a Clinical Teacher: Identity Formation in Context. Acad Med.

Step 6: having agreed a final set of search terms and combination of terms to use in our search strategy we repeated our search of the initial two databases i.e. Scopus and Web of Science and then searched all of the remaining databases using the same search terms. We searched the reference lists of highly cited papers and of recent reviews of teacher identity development in the health professions.

Step 7: In databases that employ a controlled language (e.g. Medline/PubMed, CiNAHL) for the purposes of categorising papers, we implemented our agreed search terms first. We then developed a set of appropriate synonyms from within the controlled language, e.g. MESH to increase the accuracy and sensitivity of the search within that particular database.

Teacher, identity and role related search terms

We used these terms for our initial search of all databases. These terms were amalgamated using the Boolean operator "OR". In order to ensure that all hits related to the health professions we combined the results using our main search terms with the professional discipline terms below using the Boolean operator "AND". We used the convention of "*" to indicate truncated terms; e.g. Nurs* = Nurse, nursing etc.

Teacher identity*
Preceptor identit*
Educator identit*
Teacher role
Educator role
Preceptor role
Clinical educator
Clinical instructor
Clinical tutor
Clinical teacher
Preceptor

Professional disciplines

Health profession*
Nurs*
Medic*
Physiotherap*
Speech and language therap*
Dentist*

Search string example:

"teacher identit*" OR "preceptor identit*" OR "educator identit* OR "teacher role" OR "educator role" OR "clinical educator" OR "Clinical instructor" OR "clinical tutor" AND

"Health profession*" OR Nurs* or Medic* OR Physiotherap* OR Dentist* OR "speech and language therap*"

Faculty development search terms

We used these terms to locate research that explored the development of clinical teacher identity but had been labelled as being about faculty or teacher development.

Faculty development Teacher development Supplemental digital content for Cantillon P, Dornan T, De Grave W. Becoming a Clinical Teacher: Identity Formation in Context. Acad Med.

Search string example:

"faculty development" OR "teacher development"

AND

"teacher identit*" OR "preceptor identit*" OR "educator identit*

AND

"health profession*" OR nurs* or medic* OR physiotherap* OR dentist* OR "speech and language therap*"

Search terms derived using controlled language

We used teacher, role, identity and faculty development search terms for all databases. When search databases that employ a controlled language for categorising papers, (E.g. Medline/PubMed) we developed customised search term sets using the controlled language within the database, e.g. MESH. For example, when using PUBMED/Medline we used the following additional MESH terms in addition to the main search terms outlined above

Preceptorship
Professional Role
Identification (Psychology)*
Social Identification
Interpersonal Relations
Nursing Education Research
Faculty, Nursing
Education, Medical
Teaching
Speech-Language Pathology/education
Faculty

Database selection

Working with our academic librarian, we selected the databases that were most likely to yield findings relevant to health professions education, identity and teacher development. We also elected to look at three separate databases of doctoral theses because these were unlikely to be referenced in the mainstream bibliographic databases.

Databases

Scopus
Web of Science
PubMED Medline
CINAHL
Embase
PsycInfo
Eric
British education index
Australian education index
ETHOS - doctoral theses
Proquest - doctoral theses
OPENGrey - doctoral theses

SCREENING PHASES: INCLUSION/EXCLUSION CRITERIA

- **Phase 1 Relevance screen:** the purpose of the phase 1 relevance screen was to locate research articles and doctoral dissertations that explored the phenomenon of clinical teacher identity. This phase involved screening study titles and abstracts.
 - o **Process:** An initial set of inclusion/exclusion criteria were jointly agreed between the three authors. PC and WdeG reviewed a 10% sample of the initial dataset of 4,863 papers and made further refinements to the inclusion/exclusion criteria. PC then undertook a relevance filtering exercise on the full search dataset of 4863 papers and dissertations. This yielded 384 research papers and dissertations that explored the development of clinical teacher identity in the health professions.
- Phase 2 and 3 Accuracy screening: the purpose of the phase 2 and 3 screening process was to ensure that the studies included in the review explored the development of clinical teacher identity in relation to features of social context.
 - o **Process:** Following phase 1, the authors met to further develop the inclusion/exclusion criteria and to iteratively develop the focus of the scoping review. PC and WdG carried out a screening exercise on a 10% stratified random sample of the total dataset of 384 papers. PC and WdeG met to review the outcomes of their individual screening of the 10% sample. The authors were agreed on the allocation, (i.e. inclusion/exclusion) for 38 out of the 39 papers reviewed. The divergence of opinion about the 39th paper was resolved by making a small adjustment to the inclusion/exclusion criteria which was subsequently agreed with the third author TD. The adjusted inclusion/exclusion criteria were used by PC on the full dataset of 384 papers. This process was repeated twice yielding a dataset of 54 papers and dissertations that met the inclusion criteria.
- Phase 4 Full text screening: the purpose of phase 4 screening was to ensure that the focus of the paper or dissertation was on the relationship between features of clinical workplace context and the development of teacher identity. Phase 4 screening also involved the completion of a data charting form in keeping with Levac's description of the scoping review process.
 - o **Process:** following phase 3, the authors met to further refine the inclusion/exclusion criteria. In particular, they included a stipulation that the research should look specifically at the relationship between clinical teacher identity and features of clinical workplaces. Phase 4 screening involved a full text reading of each of the 54 journal articles and doctoral dissertations included following screening phase 3. PC and WdG selected a 20% stratified random sample of the 54 included studies and independently reviewed the journal articles and dissertations included in the sample. They used a data charting form to record key data from each of the screened studies. PC and WdG met to review the results of their respective screening of the 20% sample. They each presented their inclusion and exclusion lists. There were 2 studies in which there was a difference of opinion. Following discussion both studies were excluded without any further changes to the inclusion exclusion criteria. They also made small adjustments to the data charting form. PC used the agreed inclusion/exclusion criteria and the data charting form to review all 54 articles and dissertations from phase 3 screening. He extracted an agreed dataset from each study and displayed the data using the data charting form. Phase 4 screening and data charting yielded a final dataset of 34 studies that accurately matched the inclusion criteria.