# Appendix 3 Details on the search process and the resulting papers

We searched for relevant articles in PubMed, PsycINFO, ERIC, CINAHL and Embase in 2016. Since we did not have a convincing rationale to limit our search to a certain time frame, we decided to include all relevant articles up till then, which implies all years before and through 2016. We started our search strategy with keywords like patient-centredness and patient-centred care. We used MeSH-terms used in the articles found to make our search more comprehensive. We combined the string with keywords referring to the context, learning and intervention. A broad spectrum of interventions was included. We adapted for idiosyncrasies of each of the databases.

Because of the large number of articles retrieved (4597) with this broad spectrum of interventions, the review team narrowed the focus and solely included articles about interventions in which real patients or simulated or standardised patients were part of the intervention. Later in the process we decided, see argument below, to focus purely on articles about interventions employing real patients, and to perform a separate review for articles about interventions employing simulated patients.

To come to a shared understanding of the in- and exclusion criteria and to check the feasibility of these criteria, all members of the team individually screened and then discussed the same, randomly chosen 150 title-abstracts. Two couples of the review team individually screened sets of 450 articles and then discussed the outcomes within their couples. When the two members could not agree on an article, it was screened by the other couple and discussed in the whole team. After this, the in- and exclusion criteria were finalised (see Table below).

The remaining articles were divided over the review team. The title/abstract screening for each set of articles was done by a single screener. In case of uncertainty, an article was screened by a second team member also to decide on in- or exclusion. If no decision could be made by the first two screeners, the abstract was screened by all team members to reach a decision. After title/abstract screening, we searched the full text of the remaining 590 articles. Most articles were obtained through the library, but for those that were not accessible through the library, we performed additional searches on Researchgate and Google, approached librarians for help, and e-mailed the first authors of the missing articles. Six percent of the articles, all older papers, were not found in full-text, a percentage that we considered acceptable because we searched without time limitation which means that, eventually, we obtained 554 full-text articles. Up till this point in the process, our set contained papers about interventions with real, simulated or standardised patients. During the phase of screening articles with an intervention with real patients and articles with an intervention with simulated or standardised patients, we found that the latter kind of interventions adhered to a different pedagogy than the interventions focusing on learning from real patients. Therefore, we split the set of included articles and decided to limit the current study to interventions with real patients. We will report the analysis of papers about simulated and standardised patients elsewhere.

Table: In- and exclusion criteria applied in the review

Inclusion criteria

* Language English or Dutch
* Context: medical graduate and undergraduate education, medicine, (professional) continuing education
* Participants: Students, residents, doctors, nurses, dentists
* The central outcome is aspects of the concept ‘patient-centredness’. Key-terms in patient-centredness according to Scholl: essential characteristics of clinician, clinician-patient relationship, clinician-patient communication, patient as unique person, bio-psycho-social perspective, patient information, patient involvement in care, involvement of family and friends, patient empowerment, physical support, emotional support, integration of medical and non-medical care, teamwork and teambuilding, access to care, coordination and continuity of care.
* Educational intervention. The intervention is evaluated. The intervention does not necessarily have to have been developed especially for the study.
* Rich enough descriptions in the results and discussion section to allow for identification of mechanisms
* Type of study: qualitative as well as quantitative research studies

Exclusion criteria

* Articles about a theoretical concept, without any empirical results
* Articles with a focus on patient outcomes only (without attention to the learning process).
* Articles which are about teaching – or learning the knowledge component of patient-centredness (“what is PC”).
* Articles in which a whole curriculum change is evaluated, with a focus on curriculum change as a whole and not on (evaluation of) individual components of the curriculum that might contribute to PC
* Articles which are about the assessment of patient-centredness primarily.
* Patients (real or simulated) are not part of the intervention
* Interventions about training general communication skills only (for example bad news conversations) without a clear link to patient-centredness.