# Evidence in Context

Health research — synthesized and contextualized for use in Newfoundland & Labrador

ONLINE COMPANION DOCUMENT

Patient Decision Aids in

Obstetrics in Newfoundland &

Labrador



## The Patient Decision Aids in Obstetrics Project

#### ABOUT THIS REPORT

This Online Companion Document provides more extensive detail about the search strategies, filtering process, and critical appraisal of the research literature included in the following Evidence in Context Report of the Contextualized Health Research Synthesis Program at the NL Centre for Applied Health Research:

[Report citation]

ISBN:

#### **RESEARCH QUESTION**

"How do patient decision aids affect patients' knowledge and decisional conflict when engaging in shared decision-making within the childbearing year?"

#### Research Design & Publication Dates

#### Project Parameters:

- be a systematic review or a meta-analysis covering at least two studies and published within the past 10 years or be a very recent, high-quality primary study;
- include people who were making decisions about their pregnancy within the childbearing year;
- include a comparator group receiving usual care, educational materials, or another intervention;
- study an intervention that followed our definition of a patient decision aid;
- measure outcomes related to knowledge, decisional conflict, satisfaction, anxiety, or perception
  of making an informed decision; and
- be published in English.

#### Selection Criteria

The research team collectively agreed on the following inclusion criteria for selection of articles:

#### **PICO**

Population: People making decisions about their pregnancy within the childbearing year

Intervention: Patient decision aids

Comparator: Groups receiving usual care, educational materials, or another intervention

Outcomes: Knowledge, decisional conflict, satisfaction, anxiety, or perception of making an informed

decision

#### PICO Search Terms

#### Population:

"pregnant women"[MH] OR "Pregnancy"[Mesh:NoExp] OR "parturition"[MH] OR "Prenatal Care"[MH] OR "Perinatal Care"[MH] OR "perinatology"[MH] OR "neonatology"[MH] OR "pregnancy, high risk"[MH]

OR "delivery rooms" [MH] OR "cesarean section" [MH] OR "cesarean section, repeat" [MH] OR "midwifery" [MH] OR "delivery, obstetric" [MH] OR "obstetric surgical procedures" [MH] OR "labor, obstetric" [MH] OR "obstetric nursing" [MH] OR "anesthesia, obstetrical" [MH] OR "obstetrics" [MH] OR "maternal health services" [MH] OR "hospitals, maternity" [MH] OR "Analgesia, Obstetrical" [MH] OR "Anesthesia, Obstetrical" [MH] OR "Obstetric Labor Complications" [MH] OR "Labor, Obstetric" [MH] OR pregnan\* [TW] OR parturi\* [TW] OR "prenatal\*" [TW] OR "pre natal\*" [TW] OR "antenatal care" [TW] OR perinatal\* [TW] OR matern\* [TW] OR birth\* [TW] OR cesarean\* [TW] OR midwi\* [TW] OR obstetric\* [TW] OR "Prenatal Genetic Screening" [TW] OR "Prenatal Testing" [TW] OR "Parturition" [TW] OR Perinatolog\* [TW] OR childbirth\* [TW]

#### Intervention:

"decision support techniques"[MH] OR "decision making, shared"[MH] OR "decision making"[MH] OR "decision making"[TW] OR "decision aid\*"[TW] OR "decision analysis"[TW] OR "decision support"[TW] OR "Decision Making Aid\*"[TW] OR "Decision Guide\*"[TW] OR "Decision Board\*"[TW] OR "Decision Trees"[TW] OR "Decision Instrument\*"[TW] OR "Decision Trees"[TW]

Limits: Systematic reviews, meta-analyses meta-analysis[ptyp] OR systematic[sb] OR (systematic review[Title/Abstract] NOT medline[sb]) OR (meta-analysis[Title/Abstract] NOT medline[sb])

Dates: "2011/01/01"[PDat]: "2021/07/01"[PDat]

#### Search Strategy & Article Selection:

To identify relevant articles, we searched the PubMed, CINAHL, Embase, and Cochrane periodical indexes, and grey literature sources according to the CADTH Grey Matters list. We focused on systematic review literature published within the past 10 years (2011-2021) and very recent primary research studies; any additional referrals, e.g., from Google Scholar or periodical index "related articles"; and available in English.

#### **PubMed Search**

"pregnant women"[MH] OR "Pregnancy"[Mesh:NoExp] OR "parturition"[MH] OR "Prenatal Care"[MH] OR "Perinatal Care"[MH] OR "perinatology"[MH] OR "neonatology"[MH] OR "pregnancy, high risk"[MH] OR "delivery rooms"[MH] OR "cesarean section"[MH] OR "cesarean section, repeat"[MH] OR "midwifery"[MH] OR "delivery, obstetric"[MH] OR "obstetric surgical procedures"[MH] OR "labor, obstetric"[MH] OR "obstetric nursing"[MH] OR "anesthesia, obstetrical"[MH] OR "obstetrics"[MH] OR "maternal health services"[MH] OR "hospitals, maternity"[MH] OR "Analgesia, Obstetrical"[MH] OR "Anesthesia, Obstetrical"[MH] OR "Obstetric Labor Complications"[MH] OR "Labor, Obstetric"[MH] OR pregnan\*[TW] OR parturi\*[TW] OR "prenatal\*"[TW] OR "prenatal\*"[TW] OR matern\*[TW] OR birth\*[TW] OR cesarean\*[TW] OR midwi\*[TW] OR obstetric\*[TW] OR "Prenatal Genetic Screening"[TW] OR "Prenatal Testing"[TW] OR "Parturition"[TW] OR Perinatolog\*[TW] OR childbirth\*[TW]

#### **AND**

"decision support techniques"[MH] OR "decision making, shared"[MH] OR "decision making"[MH] OR "decision making"[TW] OR "decision aid\*"[TW] OR "decision analysis"[TW] OR "decision support"[TW] OR "Decision Making Aid\*"[TW] OR "Decision Guide\*"[TW] OR "Decision Board\*"[TW] OR "Decision Trees"[TW] OR "Decision Instrument\*"[TW] OR "Decision Trees"[TW]

#### **AND**

meta-analysis[ptyp] OR systematic[sb] OR (systematic review[Title/Abstract] NOT medline[sb]) OR (meta-analysis[Title/Abstract] NOT medline[sb])

#### **AND**

"2011/01/01"[PDat]: "2021/07/01"[PDat]

#### **Cochrane Search**

[mh "Pregnant women"] OR [mh "parturition"] OR [mh "prenatal care"] OR [mh "pregnancy, high-risk"] [mh "obstetric labor complications"] OR [mh "analgesia, obstetrical"] OR [mh "anesthesia, obstetrical"] OR [mh "delivery, obstetric"] OR [mh "extraction, obstetrical"] OR [mh "labor, obstetric"] OR [mh "pregnancy"] OR [mh "obstetrics"] OR [mh "Obstetrics and gynecology department, hospital"] OR [mh "neonatal nursing"] OR [mh "perinatology"] OR [mh "midwifery"] OR [mh "obstetric surgical procedures"] OR [mh "labor, induced"] OR [mh "cesarean section"] OR [mh "prenatal diagnosis"] OR [mh "cesarean section, repeat"] OR "birth\*" OR "parturi\*" OR "antenatal\*" OR "pregnan\*" OR "obstet\*" OR "labor" OR "perinatal\*" OR "neonat\*" OR "midwi\*" OR "cesarean\*" OR "caesarean" OR "C-section" OR "prenatal" OR "matern\*" OR "perinatolog\*"

#### **AND**

[mh "decision support techniques"] OR [mh "decision support systems, clinical"] OR [mh "decision support systems, management"] OR [mh "decision making"] OR [mh "decision making, organizational"] OR [mh "decision making, shared"] OR [mh "decision making, computer-assisted"] OR [mh "decision trees"] OR "decision making" OR "decision aid\*" OR "decision analysis" OR "decision support\*" OR "Decision making aid\*" OR "decision guide\*" OR "decision board\*" OR "decision tool\*" OR "decision instrument\*" OR "decisional aid\*" OR "decision tree\*"

#### **CINAHL Search**

(MH "Expectant Mothers") OR "Expectant Mothers" OR "pregnant" OR (MH "Female Urogenital Diseases and Pregnancy Complications") OR (MH "Pregnancy, High Risk") OR (MH "Pregnancy in Diabetes") OR (MH "Pregnancy Complications") OR (MH "Pregnancy") OR (MH "Immunologic Tests") OR (MH "Obstetrics") OR "obstetrics" OR (MH "Obstetric Emergencies") OR (MH "Delivery, Obstetric") OR (MH "Obstetric Equipment and Supplies") OR (MH "Obstetric Patients") OR (MH "Association of Women's Health, Obstetric, and Neonatal Nurses") OR (MH "Obstetric Service") OR (MH "Diagnosis,

Obstetric") OR (MH "Obstetric Nursing") OR (MH "Obstetric Care") OR (MH "Surgery, Obstetrical") OR (MH "Anesthesia, Obstetrical") OR (MH "Analgesia, Obstetrical") OR (MH "Perinatal Nursing") OR (MH "Prenatal Care") OR (MH "Perinatology") OR (MH "Nurse-Midwifery Service") OR (MH "Management of Labor") OR (MH "Labor Stage, Third") OR (MH "Labor Stage, Second") OR (MH "Intrapartum Care") OR (MH "Childbirth") OR (MH "Cesarean Section") OR (MH "Cesarean Section, Elective") OR (MH "Breech Delivery") OR (MH "Labor") OR "parturition" OR (MH "Midwifery") OR (MH "Nurse Midwifery") OR (MH "Midwifery Service") OR "pregnan\*" OR "parturi\*" OR "prenatal\*" OR "pre natal\*" OR "antenatal" OR "perinatal\*" OR "perinatal" OR "neonat\*" OR "matern\*" OR "birth\*" OR "cesarean\*" OR "caesarean\*" OR "midwi\*" OR "obstetric\*" OR "prenatal genetic screening" OR "prenatal testing" OR "parturition" OR "perinatolog\*" OR "childbirth\*" ) OR (MH "Pregnancy Complications/TH") OR (MH "Prenatal Care/MT") OR (MH "Vaginal Birth After Cesarean") OR (MH "Pregnancy Outcomes") OR (MH "Prenatal Diagnosis")

#### **AND**

"decision aids" OR (MH "Decision Support Techniques") OR (MH "Decision Support Systems, Clinical") OR (MH "Decision Support Systems, Management") OR (MH "Decision Making, Organizational") OR (MH "Decision Trees") OR (MH "Participation: Health Care Decisions (Iowa NOC)") OR (MH "Decision Making, Computer Assisted") OR (MH "Decision Making, Shared") OR (MH "Decision Making, Patient") OR (MH "Decision Making, Ethical") OR (MH "Decision Making, Family") OR (MH "Decision Making, Clinical") OR (MH "Decision-Making Support (Iowa NIC)") OR (MH "Decision Making (Iowa NOC)") OR (MH "Decision Making") OR "decision making" OR "decision aid\*" OR "decision analysis" OR "decision support\*" OR "Decision making aid\*" OR "decision guide\*" OR "decision board\*" OR "decision tool\*" OR "decision instrument\*" OR decisional aid\*" OR "decision tree\*" OR (MH "Decision Making/EV") OR (MH "Patient Education") OR (MH "Decision Support Techniques/EV") OR (MH "Health Education") OR (MH "Patient Centered Care")

#### Results: 29 items

Included (13 items)

- Dugas 2012
- Horey 2013
- Kennedy 2020
- Ngo 2020
- Nilsson 2015
- Poprzeczny 2020
- Say 2011
- Skjoth 2014
- Stacey 2017
- van Agt 2014
- Vlemmix 2012
- Yu 2021
- Zibellini 2020

Excluded (scoping reviews)

- Coates 2020
- Kennedy 2020

#### Excluded (not closely enough related)

- Berger 2015
- Borrelli 2020
- Carter 2020
- Chen 2018
- Coates 2020
- Dobler 2019
- Donnelly 2017
- Edmonds 2014
- Jenabi 2020
- Khunpradit 2011
- Légaré 2012
- Munro 2016
- Portocarrero 2015
- Stanak 2019

#### **Grey Literature Search**

#### Keywords:

- Patient decision aids
- Obstetrics

We used the CADTH resource Grey Matters: a practical tool for searching health-related grey literature to search for Grey Literature. For further information and access to the document please see: <a href="https://www.cadth.ca/grey-matters-practical-tool-searching-health-related-grey-literature">https://www.cadth.ca/grey-matters-practical-tool-searching-health-related-grey-literature</a>

#### Websites

#### **Health Economics - Canada**

#### Public Health Agency of Canada

• <u>Care during pregnancy: Family-centred maternity and newborn care national guidelines - Canada.ca</u>

#### **Health Economics - International**

Guidelines and Measures | Agency for Healthcare Research and Quality (ahrq.gov)

- Webinar 1: Patient-Centered Outcomes Research and the Use of Decision Aids To Facilitate Shared Decisionmaking | Agency for Healthcare Research and Quality (ahrq.gov)
- <u>Incorporate Decision Aids Into a Healthcare Quality Report | Agency for Healthcare Research</u> and Quality (ahrq.gov)
- New Checklist Evaluates Health Care Decision Aids | Agency for Healthcare Research and Quality (ahrq.gov)

- Questions and Answers: AHRQ National Webinar on Implementation of Shared Decision Making
   In Varied Settings | Agency for Healthcare Research and Quality
- Patient-Centered Outcomes Research and the Use of Decision Aids to Facilitate Shared Decision Making (ahrq.gov)
- <u>The SHARE Approach—Essential Steps of Shared Decisionmaking: Expanded Reference Guide</u> with Sample Conversation Starters | Agency for Healthcare Research and Quality (ahrq.gov)
- The SHARE Approach—Health Literacy and Shared Decisionmaking: A Reference Guide for Health Care Providers | Agency for Healthcare Research and Quality (ahrq.gov)
- Rochester Regional Health System Uses Shared Decisionmaking to Improve Patient Care | Agency for Healthcare Research and Quality (ahrq.gov)
- <u>The SHARE Approach—Overcoming Communication Barriers With Your Patients: A Reference</u> Guide for Health Care Providers | Agency for Healthcare Research and Quality (ahrq.gov)
- SHARE Approach Curriculum Tools | Agency for Healthcare Research and Quality (ahrq.gov)
- The SHARE Approach—Essential Steps of Shared Decisionmaking: Quick Reference Guide | Agency for Healthcare Research and Quality (ahrq.gov)
- Making Informed Consent an Informed Choice: Training for Health Care Leaders Audio Script |
   Agency for Healthcare Research and Quality (ahrq.gov)
- Implementation Guide for AHRQ's Making Informed Consent an Informed Choice Training Modules | Agency for Healthcare Research and Quality
- Interventions to engage patients and families in patient safety: a systematic review. | PSNet (ahrq.gov)
- Patient decision aids (PDAs) | Washington State Health Care Authority

#### **Advisories and Warning – International**

#### **NHS England**

High blood pressure in pregnancy | Action on Pre-eclampsia (action-on-pre-eclampsia.org.uk)

#### **Clinical Trials Registries**

#### Clinical Research Trials | CenterWatch

PDA for Antidepressant Use in Pregnancy | Clinical Research Trial Listing ( Depression | Pregnancy ) ( NCT03632863 ) (centerwatch.com)

#### **Databases**

#### Evidence search service closure information | NICE

• Decision Aids | Doctor | Patient

#### Trip Medical Database (tripdatabase.com)

- <u>Creating tools to improve opportunities for shared decision making during pregnancy</u> Evidence-Based Nursing blog (bmj.com)
- Birth choices for women in a 'Positive Birth after Caesarean' clinic: Randomised trial of alternative shared decision support strategies PubMed (nih.gov)

#### **Internet Search**

#### Google

- https://decisionaid.ohri.ca/AZsearch.php?criteria=pregnancy
- <a href="https://decisionaid.ohri.ca/AZsumm.php?ID=1161">https://decisionaid.ohri.ca/AZsumm.php?ID=1161</a>
- <a href="https://opha.on.ca/getmedia/d27487e1-48ea-4ed3-ada8-1c2e0d060330/Informed-Decision-Making-for-Labour-and-Birth-position-paper-updated-041817.pdf.aspx">https://opha.on.ca/getmedia/d27487e1-48ea-4ed3-ada8-1c2e0d060330/Informed-Decision-Making-for-Labour-and-Birth-position-paper-updated-041817.pdf.aspx</a>
- https://www.healthwise.org/press/pregnancy-decision-aid.aspx
- <a href="https://www.healio.com/news/primary-care/20200529/qa-shared-decisionmaking-extremely-important-in-maternal-care">https://www.healio.com/news/primary-care/20200529/qa-shared-decisionmaking-extremely-important-in-maternal-care</a>
- <a href="https://www.hca.wa.gov/about-hca/making-informed-health-care-decisions/patient-decision-aids-pdas">https://www.hca.wa.gov/about-hca/making-informed-health-care-decisions/patient-decision-aids-pdas</a>
- <a href="https://www.cheos.ubc.ca/research-in-action/choosing-the-best-mode-of-birth-after-a-previous-caesarean/">https://www.cheos.ubc.ca/research-in-action/choosing-the-best-mode-of-birth-after-a-previous-caesarean/</a>
- <a href="https://www.womensresearch.ca/research-areas/mental-health/pda-for-antidepressant-use-in-pregnancy">https://www.womensresearch.ca/research-areas/mental-health/pda-for-antidepressant-use-in-pregnancy</a>
- https://clinicaltrials.gov/ct2/show/NCT04651114

#### Examples of Patient Decision Aids

- Decision Aid for Early Medical Abortion without Ultrasound
- Abortion Before 14 Weeks: Choosing between Medical or Surgical Abortion Decision Aid
- Abortion from 14 Weeks up to 24 Weeks: Choosing between Medical or Surgical Abortion
   Decision Aid
- An Aid to Decision-Making for Prenatal Screening
- An Aid to Decision-Making: Should I Take the SIPS/IPS Test to Screen for Trisomy 21 (Down syndrome)?
- I'm Pregnant. Should I get a COVID\* Vaccine?

#### Primary Research

- Factors Influencing Pregnant Women's use of Patient Decision Aids and Decision Making on Prenatal Screening: A Qualitative Study
- Implementation of Shared Decision Making in Three Obstetric Clinical Settings
- Healthcare Professionals' Views on Two Computer-Based Decision Aids for Women Choosing
   Mode of Delivery after Previous Caesarean Section: A Qualitative Study
- Women's Views on the use of Decision Aids for Decision Making about the Method of Delivery Following a Previous Caesarean Section: Qualitative Interview Study
- What Factors Influence Health Professionals to use Decision Aids for Down Syndrome Prenatal Screening?

#### **Opinion Piece**

- Risk Calculators and Decision Aids are not Enough for Shared Decision Making
- Informed Consent and Shared Decision Making in Obstetrics and Gynecology

#### Other

• Patient Decision Aids in Routine Maternity Care: Benefits, Barriers, and New Opportunities

#### **List of Included Papers:**

#### Papers for data extraction

- 1. Chen 2018
- 2. Coates 2020
- 3. Dugas 2012
- 4. Horey 2013
- 5. Kennedy 2020
- 6. Khundpradit 2011
- 7. Ngo 2020
- 8. Nilsson 2015
- 9. Poprzeczny 2020
- 10. Say 2011
- 11. Skjoth 2014
- 12. Stacey 2017
- 13. van Agt 2014
- 14. Vlemmix 2012
- 15. Yu 2021
- 16. Zibellini 2020

#### List of Papers to AMSTAR:

- 1. Chen 2018
- 2. Coates 2020
- 3. Dugas 2012
- 4. Horey 2013
- 5. Kennedy 2020
- 6. Khundpradit 2011
- 7. Ngo 2020
- 8. Nilsson 2015
- 9. Poprzeczny 2020
- 10. Say 2011
- 11. Skjoth 2014
- 12. Stacey 2017
- 13. van Agt 2014
- 14. Vlemmix 2012
- 15. Yu 2021
- 16. Zibellini 2020

#### **Critical Appraisal**

As stated in the main report, our critical appraisal methodology for systematic reviews employs AMSTAR, a validated measurement tool for evaluating the methodological quality of systematic reviews. AMSTAR scores range from 0 to 11. Higher scores can be taken as an indicator that the various stages of the review –e.g., literature searching, pooling of data, critical appraisal, etc. –were conducted appropriately. Each included systematic review was scored independently by the CHRSP researchers using the AMSTAR tool. We then met and compared their appraisals, review by review, and resolved any discrepancies in score via a consensus procedure. Below we provide a blank version of the AMSTAR scoring sheet, a table that illustrates how each review was scored, and the data extraction tables.

The CHRSP researchers also conducted Downs and Black for each of the Primary Studies synthesized in the report. They assessed each study independently and subsequently compared their appraisals, study by study, and resolved any discrepancies via a consensus procedure.

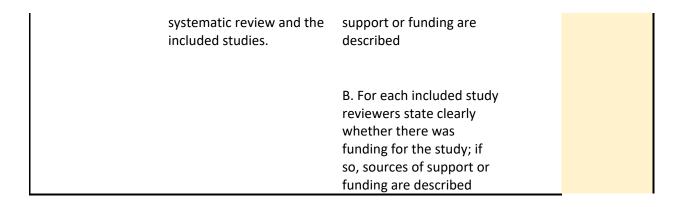
The results of these assessments, along with the blank Samples of AMSTAR and Downs & Black tools, are presented below:

#### AMSTAR Sample:

|   | AUTHOR<br>NAME:<br>REVIEW                        |   | COCHRANE?   |       | AMSTAR<br>Score.   |
|---|--|---|---|-------|--------------------|
|   | DATE:  |   |   |       |                    |
| # | Item   | Description   | Criteria  | Карра | FINAL<br>JUDGEMENT |
|   |  | The research question and   | A. Research question  |       |                    |
|   | Was an 'a  | inclusion criteria should   | B. Inclusion criteria   |       |                    |
| 1 | priori' design<br>provided?                      | be established before the conduct of the review.  | C. Previously published protocol, ethics approval, or research objectives |       |                    |
| 2 | Was there<br>duplicate<br>study<br>selection and | There should be at least<br>two independent data<br>extractors and a<br>consensus procedure for | A. Duplicate/checked study selection B. Duplicate/checked data extraction |       |                    |
|   | data extraction?                                 | disagreements should be in place.   | C. Consensus process  |       |                    |
|   | Was a  | At least two electronic sources should be   | A. At least two electronic sources (Cochrane = 2)                         |       |                    |
|   | comprehensiv                                     | searched. The report must include years and   | B. Years  |       |                    |
| 3 | e literature<br>search                           | databases used (e.g.  | C. Names of databases   |       |                    |
|   | performed?                                       | Central, EMBASE, and MEDLINE). Key words and/or MESH terms must                                 | D. Key words/MeSH terms (where feasible, search string)                   |       |                    |

|   |   | be stated and where feasible the search strategy should be provided. All searches should be supplemented by consulting current contents, reviews, textbooks, specialized registers, or experts in the particular field of study, or by reviewing the references in the studies found.   | F. One supplementary strategy  |
|---|---|---|--|
| 4 | Was the status of publication (i.e. grey literature)        | The authors should state that they searched for reports regardless of their publication type. The authors should state whether or not they  | A. Reviewers explicitly demonstrate that there were no language search restrictions  |
|   | used as an inclusion criterion?                             | excluded any reports (from the systematic review), based on their publication status, language etc.   | B. Reviewers explicitly demonstrate that they searched for grey lit  |
| 5 | Was a list of studies (included and excluded) provided?     | A list of included and excluded studies should be provided.   | A. List of studies (included and excluded) B. Included studies listed and excluded studies referenced C. Included studies listed and excluded studies linked |
| 6 | Were the characteristic s of the included studies provided? | In an aggregated form such as a table, data from the original studies should be provided on the participants, interventions and outcomes. The ranges of characteristics in all the studies analyzed e.g. age, race, sex, relevant socioeconomic data, disease status, duration, severity, or other diseases should be reported. | A. Aggregate description of characteristics of included studies, e.g. participant age, gender, health status, etc.   |

| 7  | Was the scientific quality of the included studies assessed and documented?                       | 'A priori' methods of assessment should be provided (e.g., for effectiveness studies if the author(s) chose to include only randomized, doubleblind, placebo controlled studies, or allocation concealment as inclusion criteria); for other types of studies alternative items will be relevant.   | A. Quality scoring tools/checklists and grade/score reported for each included study  B. Prose description of quality items and appraisals of each included study |  |
|----|---|---|---|--|
| 8  | Was the scientific quality of the included studies used appropriately in formulating conclusions? | The results of the methodological rigor and scientific quality should be considered in the analysis and the conclusions of the review, and explicitly stated in formulating recommendations.  | A. Must score YES on #7  B. Must show some recognition of impact of quality and methodological rigour   |  |
| 9  | Were the methods used to combine the findings of studies appropriate?                             | For the pooled results, a test should be done to ensure the studies were combinable, to assess their homogeneity (i.e. Chi-squared test for homogeneity, I2). If heterogeneity exists a random effects model should be used and/or the clinical appropriateness of combining should be taken into consideration (i.e. is it sensible to combine?) | A. Pooled results have tests for homogeneity and appropriate changes if heterogeneity found  B. No pooled results   |  |
| 10 | Was the likelihood of publication bias (a.k.a. "file drawer" effect) assessed?                    | An assessment of publication bias should include a combination of graphical aids (e.g., funnel plot, other available tests) and/or statistical tests (e.g., Egger regression  | A. Graphical aids  B. Statistical tests  C. Fewer than 10 studies   |  |
| 11 | Was the conflict of interest stated?  | test).  Potential sources of support should be clearly acknowledged in both the   | A. Reviewers state clearly whether or not there was funding for systematic review; if so, sources of  |  |



#### The AMSTAR Scores:

| Author of Systematic Review | Date | Cochrane | Карра | AMSTAR Score | AMSTAR Category |                       | Count | Average Kappa | Average AMSTAR for All Systematic Reviews      |
|-----------------------------|------|----------|-------|--------------|-----------------|-----------------------|-------|---------------|--|
| van Agt                     | 2014 |          | 0.93  | 81.82        | High            | Low (will be dropped) | 0     | 0.97          | 68.18  |
| Zibellini                   | 2020 |          | 0.93  | 63.64        | Moderate        | Moderate              | 9     |               |  |
| Yu                          | 2021 |          | 1.00  | 72.73        | High            | High                  | 7     |               | Average AMSTAR for Retained Systematic Reviews |
| Vlemmix                     | 2012 |          | 1.00  | 72.73        | High            | TOTAL                 | 16    |               | 68.18  |
| Dugas                       | 2012 |          | 0.93  | 63.64        | Moderate        |                       |       |               |  |
| Coates                      | 2020 |          | 1.00  | 54.55        | Moderate        | Usable SRs            | 16    |               |  |
| Kennedy                     | 2020 |          | 0.93  | 63.64        | Moderate        |                       |       |               |  |
| Ngo                         | 2020 |          | 1.00  | 45.45        | Moderate        |                       |       |               |  |
| Chen                        | 2018 | Yes      | 1.00  | 100.00       | High            |                       |       |               |  |
| Khunpradit                  | 2011 | Yes      | 1.00  | 90.91        | High            |                       |       |               |  |
| Nilsson                     | 2015 |          | 1.00  | 63.64        | Moderate        |                       |       |               |  |
| Horey                       | 2013 | Yes      | 0.93  | 72.73        | High            |                       |       |               |  |
| Stacey                      | 2017 | Yes      | 1.00  | 90.91        | High            |                       |       |               |  |
| Poprzeczny                  | 2020 |          | 0.93  | 45.45        | Moderate        |                       |       |               |  |
| Say                         | 2011 |          | 1.00  | 45,45        | Moderate        |                       |       |               |  |
| Skjoth                      | 2015 |          | 0.93  | 63.64        | Moderate        |                       |       |               |  |

All papers were considered to be included in this report since no scores fell within the "Low" AMSTAR category, however, a few systematic reviews fell outside the scope of this project.

Papers included in report synthesis:

- 1. Dugas 2012
- 2. Horey 2013
- 3. Ngo 2020
- 4. Nilsson 2015
- 5. Poprzeczny 2020
- 6. Say 2011
- 7. Skjoth 2014
- 8. Stacey 2017
- 9. van Agt 2014
- 10. Vlemmix 2012
- 11. Yu 2021
- 12. Zibellini 2020

## Downs & Black Sample:

| # | ltem   | Description   | Yes/<br>No/<br>Don't<br>Know | Agree | Final<br>Score |
|---|--|---|------------------------------|-------|----------------|
| 1 | Is the hypothesis/ aim/objective of the study clearly described?   |   |                              |       | 0              |
| 2 | Are the main outcomes to be measured clearly described in the Introduction or Methods section?             | If the main outcomes are first mentioned in the Results section, the question should be answered no.  |                              |       | 0              |
| 3 | Are the characteristics of the patients included in the study clearly described?                           | In cohort studies and trials, inclusion and/or exclusion criteria should be given. In case-control studies, a case-definition and the source for controls should be given.  |                              |       | 0              |
| 4 | Are the interventions of interest clearly described?   | Treatments and placebo (where relevant) that are to be compared should be clearly described.  |                              |       | 0              |
| 5 | Are the distributions of principal confounders in each group of subjects to be compared clearly described? | A list of principal confounders is provided. (Y=Yes, P=Partially, N=No)   |                              |       | 0              |
| 6 | Are the main findings of the study clearly described?  | Simple outcome data (including denominators and numerators) should be reported for all major findings so that the reader can check the major analyses and conclusions. (This question does not cover statistical tests which are considered below).   |                              |       | 0              |
| 7 | Does the study provide estimates of the random variability in the data for the main outcomes?              | In non normally distributed data the inter-quartile range of results should be reported. In normally distributed data the standard error, standard deviation or confidence intervals should be reported. If the distribution of the data is not described, it must be assumed that the estimates used were appropriate and the question should be answered yes. |                              |       | 0              |

| 8  | Have all important adverse events that may be a consequence of the intervention been reported?   | This should be answered yes if the study demonstrates that there was a comprehensive attempt to measure adverse events. (A list of possible adverse events is provided).  | 0 |
|----|--|---|---|
| 9  | Have the characteristics of patients lost to follow-up been described?   | This should be answered yes where there were no losses to follow-up or where losses to follow-up were so small that findings would be unaffected by their inclusion. This should be answered no where a study does not report the number of patients lost to follow-up.   | 0 |
| 10 | Have actual probability values been reported (e.g. 0.035 rather than <0.05) for the main outcomes except where the probability value is less than 0.001? |   | 0 |
| 11 | Were the subjects asked to participate in the study representative of the entire population from which they were recruited?                              | The study must identify the source population for patients and describe how the patients were selected.  Patients would be representative if they comprised the entire source population, an unselected sample of consecutive patients, or a random sample. Random sampling is only feasible where a list of all members of the relevant population exists.  Where a study does not report the proportion of the source population from which the patients are derived, the question should be answered as unable to determine. | 0 |
| 12 | Were those subjects who were prepared to participate representative of the entire population from which they were recruited?                             | The proportion of those asked who agreed should be stated. Validation that the sample was representative would include demonstrating that the distribution of the main confounding factors was the same in the study sample and the source population.  | 0 |
|    |  |   |   |

| 13 | Were the staff, places, and facilities where the patients were treated, representative of the treatment the majority of patients receive?   | For the question to be answered yes the study should demonstrate that the intervention was representative of that in use in the source population. The question should be answered no if, for example, the intervention was undertaken in a specialist centre unrepresentative of the hospitals most of the source population would attend.  | 0 |
|----|---|--|---|
| 14 | Was an attempt made to blind study subjects to the intervention they have received ?  | For studies where the patients would have no way of knowing which intervention they received, this should be answered yes.   | 0 |
| 15 | Was an attempt made to blind those measuring the main outcomes of the intervention?   |  | 0 |
| 16 | If any of the results of the study<br>were based on "data dredging",<br>was this made clear?  | Any analyses that had not been planned at the outset of the study should be clearly indicated. If no retrospective unplanned subgroup analyses were reported, then answer yes.   | 0 |
| 17 | In trials and cohort studies, do<br>the analyses adjust for different<br>lengths of follow-up of patients,<br>or in case-control studies, is the<br>time period between the<br>intervention and outcome the<br>same for cases and controls? | Where follow-up was the same for all study patients the answer should yes. If different lengths of follow-up were adjusted for by, for example, survival analysis the answer should be yes. Studies where differences in follow-up are ignored should be answered no.  | 0 |
| 18 | Were the statistical tests used to assess the main outcomes appropriate?  | The statistical techniques used must be appropriate to the data. For example nonparametric methods should be used for small sample sizes. Where little statistical analysis has been undertaken but where there is no evidence of bias, the question should be answered yes. If the distribution of the data (normal or not) is not described it must be assumed that the estimates used were appropriate and the question should be answered yes. | 0 |

| 19 | Was compliance with the intervention/s reliable?   | Where there was non compliance with the allocated treatment or where there was contamination of one group, the question should be answered no. For studies where the effect of any misclassification was likely to bias any association to the null, the question should be answered yes. | 0 |
|----|--|---|---|
| 20 | Were the main outcome measures used accurate (valid and reliable)?   | For studies where the outcome measures are clearly described, the question should be answered yes. For studies which refer to other work or that demonstrates the outcome measures are accurate, the question should be answered as yes.  | 0 |
| 21 | Were the patients in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited from the same population?       | For example, patients for all comparison groups should be selected from the same hospital. The question should be answered unable to determine for cohort and case control studies where there is no information concerning the source of patients included in the study.                 | 0 |
| 22 | Were study subjects in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited over the same period of time? | For a study which does not specify the time period over which patients were recruited, the question should be answered as unable to determine.  | 0 |
| 23 | Were study subjects randomised to intervention groups?   | Studies which state that subjects were randomised should be answered yes except where method of randomisation would not ensure random allocation. For example alternate allocation would score no because it is predictable.  | 0 |
| 24 | Was the randomised intervention assignment concealed from both patients and health care staff until recruitment was complete and irrevocable?                                  | All non-randomised studies should be answered no. If assignment was concealed from patients but not from staff, it should be answered no.   | 0 |

| 25             | Was there adequate adjustment<br>for confounding in the analyses<br>from which the main findings<br>were drawn?  | This question should be answered no for trials if: the main conclusions of the study were based on analyses of treatment rather than intention to treat; the distribution of known confounders in the different treatment groups was not described; or the distribution of known confounders differed between the treatment groups but was not taken into account in the analyses. In nonrandomised studies if the effect of the main confounders was not investigated or confounding was demonstrated but no adjustment was made in the final analyses the question should be answered as no. | 0 |
|----------------|--|--|---|
| 26             | Were losses of patients to follow-<br>up taken into account?   | If the numbers of patients lost to follow-up are not reported, the question should be answered as unable to determine. If the proportion lost to follow-up was too small to affect the main findings, the question should be answered yes.   | 0 |
| 27             | Did the study have suffcient power to detect a clinically important effect where the probability value for a difference being due to chance is less than 5%? | Sample sizes have been calculated to detect a difference of x% and y%.   | 0 |
| Total<br>Score |  |  | 0 |

#### Downs & Black Scores:

| Article         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | <b>17</b> | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | Final Score |
|-----------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|-------------|
| Kuppermann 2021 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1  | 0  | 0  | 1  | 0  | 1  | 1  | 1         | 1  | 1  | 1  | 1  | 1  | 1  | 0  | 1  | 1  | 1  | 23          |
| Shishido 2020   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1  | 0  | 0  | 1  | 0  | 0  | 1  | 1         | 1  | 1  | 1  | 1  | 1  | 0  | 0  | 1  | 1  | 1  | 20          |
| Talasaz 2021    | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1  | 1  | 1  | 1  | 0  | 0  | 1  | 1         | 1  | 1  | 1  | 0  | 1  | 1  | 0  | 1  | 1  | 1  | 23          |
| Guillen 2019    | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1  | 1  | 0  | 1  | 0  | 0  | 1  | 1         | 1  | 0  | 1  | 1  | 1  | 1  | 0  | 1  | 1  | 0  | 21          |
| Chen 2021       | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 1 | 1  | 0  | 0  | 0  | 0  | 0  | 1  | 1         | 1  | 0  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 20          |

#### **Data Extraction**

As described in the main report we used the CHRSP Evidence Rating System to analyze how the intervention interacted with the outcomes of interest. The CHRSP Evidence Rating System assesses the strength of the combined body of evidence about a particular intervention for achieving a given outcome for a defined population. The strength of the body of evidence increases with the quality of the

systematic reviews included in the analysis, the number of unique primary research studies included within the reviews, and the consistency of the findings.

#### How The Evidence Rating System Works

Assessing a body of evidence for CHRSP is based on the following a priori considerations:

- The assessment of the body of evidence is an assessment of our certainty as to findings from the synthesis of that evidence.
- AMSTAR is an instrumental measure of trust in the findings of a systematic review. How certain are we that the results of this review are reliable? We call this variable "Quality."
- The number of unique primary research studies is a proxy measure for power to hedge against Type II Error. How likely is it that, if there were an effect to be found, we would have found it?
  - It is also a proxy measure for the potential for bias from small sample size variability (Type I Error), and this SHOULD be accounted for by the SR.
  - It should not be considered a measure of Quality of a systematic review, which is based on the methods, but rather a measure of Sample Size (of individually estimated effect sizes).
- Agreement among review (and primary research) findings is a critical requirement in order to be able to claim certainty for any finding.
- We consider the effectiveness of an intervention for a given PICOS comparison as follows from best to worst:
  - Quantified as statistically significant (greatest to least effective)
  - Subjectively determined to be effective and/or effective but without statistical significance
  - Subjectively determined to be not effective and/or statistically not effective
  - Harmful (very rare)
- We consider the evidence at the level of individual PICOS comparisons, which means each comparison needs to be considered in terms of Quality and Sample Size.
- Higher Quality SRs tend to be more conservative in the estimation of effect size.
- In meta-analyses, effect sizes are weighted in proportion to their sample size.

#### Our assessment hierarchy is as follows:

- Is the SR evidence in agreement?
  - o Is the PR evidence in agreement?
    - YES
      - What is the highest Quality of SR evidence?
      - What is the Sample Size of the evidence?
      - How effective is the intervention?
      - Establish certainty
    - NO
      - Can the disagreement be explained?
        - YES
          - Discard dissenting evidence and repeat above
        - o NO
- Claim no certainty.

# Interaction of PICOS by Systematic Review

| 1 Systematic Revie   |   |                      | ry Study Da 1st word in title |                  |             |
|--|---|----------------------|-------------------------------|------------------|-------------|
| 2 Dugas 2012   | pw * PDA * uc * kno *                   | Frost                | 2009 womens                   | views            | on          |
| 3 Dugas 2012   | pw * PDA * uc * kno *                   | Hunter               | 2005 a                        | randomized       | trial       |
| 4 Dugas 2012   | pw * PDA * uc * kno *                   | Nassar               | 2007 evaluation               | of               | a<br>for    |
| 5 Dugas 2012   | pw * PDA * uc * kno *                   | Shorten              | 2005 making                   | choices          | for         |
| 6 Dugas 2012   | pw * PDA * uc * kno *                   | Glazier              | 1997 written                  | patient          | information |
| 7 Dugas 2012   | pw * PDA * uc * kno *                   | Stewart              | 2007 assessment               | of               | the         |
| 8 Dugas 2012   | pw * PDA * uc * anx *                   | Hunter               | 2005 a                        | randomized       | trial       |
| 9 Dugas 2012   | pw * PDA * uc * anx *                   | Nassar               | 2007 evaluation               | of               | *           |
| 10 Dugas 2012  | pw * PDA * uc * anx *                   | Montgomery           | 2007 two                      | decision         | aids        |
| 13 Dugas 2012  | pw * PDA * uc * anx *                   | Bekker               | 2004 applying                 | decision         | analysis    |
| 12 Dugas 2012  | pw * PDA * uc * anx *                   | Thomton              | 1995 a                        | randomised       | trial       |
| 13 Dugas 2012  | pw * PDA * uc * dc *                    | Hunter               | 2005 a                        | randomized       | trial       |
| 14 Dugas 2012  | pw * PDA * uc * dc *                    | Montgomery           | 2007 two                      | decision         | aids        |
| 15 Dugas 2012  | pw * PDA * uc * dc *                    | Shorten              | 2005 making                   | choices          | for         |
| 16 Dugas 2012  | pw * PDA * uc * dc *                    | Bekker               | 2004 applying                 | decision         | analysis    |
| 17 Horey 2013  | pw * PDA * uc * dc *                    | Diamond              | 2007                          |                  |             |
| 18 Horey 2013  | pw * PDA * uc * dc *                    | Shorten              | 2005 making                   | choices          | for         |
| 19 Horey 2013  | pw * PDA * uc * kno *                   | Diamond              | 2007                          | 270              | 12          |
| 20 Horey 2013  | pw * PDA * uc * kno *                   | Shorten              | 2005 making                   | choices          | for         |
| 21 Horey 2013  | pw * PDA * uc * sat *                   | Diamond              | 2007                          |                  | e488        |
| 22 Horey 2013  | pw * PDA * uc * sat *                   | Shorten              | 2005 making                   | choices          | for         |
| 23 Ngo 2020  | pw * PDA * us * kno *                   | Carlson              | 2019 use                      | of               | a           |
| 24 Ngo 2020  | pw * PDA * uc * kno *                   | Rothwell             | 2019 the                      | 1250             | of          |
| 25 Ngo 2020  | pw * PDA * uc * kno *                   | Beulen               | 2016 the                      | effect           | of          |
| 26 Ngo 2020  | pw * PDA * uc * kno *                   | Kuppermann           | 2014 effect                   | of               | enhanced    |
| 27 Ngo 2020  | pw * PDA * uc * kno *                   | 5kjoth               | 2015 informed                 | choice           | about       |
| Ngo 2020   | pw * PDA * uc * kno *                   | Yee                  | 2014 a                        | randomised       | trial       |
| 29 Ngo 2020  | pw * PDA * uc * kno *                   | Bjorklund            | 2012 audiovisual              | information      | affects     |
| 30 Ngo 2020  | pw * PDA * uc * kno *                   | Kuppermann           | 2009 computerized             | prenatal         | genetic     |
| 11 Ngo 2020  | pw * PDA * uc * kno *                   | Nagle                | 2008 use                      | of               | A           |
| Ngo 2020   | pw * PDA * uc * dc *                    | Carlson              | 2019 use                      | of               | 8           |
| 33 Ngo 2020  | pw * PDA * uc * dc *                    | Beulen               | 2016 the                      | effect           | of          |
| 34 Ngo 2020  | pw * PDA * uc * dc *                    | Kuppermann           | 2014 effect                   | of               | enhanced    |
| 35 Ngo 2020  | pw * PDA * uc * dc *                    | Kuppermann           | 2009 computerized             | prenatal         | genetic     |
| 35 Ngo 2020  | pw * PDA * uc * dc *                    | Nagle                | 2008 use                      | of               | a a         |
| 37 Ngo 2020  | pw * PDA * uc * anx *                   | Beulen               | 2016 the                      | effect           | of          |
| 38 Ngo 2020  | pw * PDA * uc * anx *                   | Nagle                | 2008 use                      | of               |             |
| 200 TO                     | pw *PDA *uc * att *                     | Rothwell             | 2019 the                      |                  | of          |
| 39 Ngo 2020  | pw *PDA * uc * att *                    |                      |                               | use              | of          |
| 40 Ngo 2020  |   | Beulen               | 2016 the                      | effect           |             |
| 41 Ngo 2020  | pw * PDA * uc * stt *                   | Skjoth               | 2015 informed                 | choice           | about       |
| 42 Ngo 2020  | pw * PDA * uc * att *                   | Bjorklund            | 2012 audiovisual              | information      | affects     |
| 43 Ngo 2020  | pw * PDA * uc * att *                   | Nagle                | 2008 use                      | of               |             |
| 44 Nilsson 2015  | pw * PDA * uc * dc *                    | Montgomery           | 2007 two                      | decision         | aids        |
| 45 Nilsson 2015  | pw * PDA * uc * dc *                    | Shorten              | 2005 making                   | choices          | for         |
| 46 Poprzeczny 2020   |   | Nagle                | 2008 use                      | of               | a           |
| 47 Poprzeczny 2020   |   | Protheroe            | 2007 effectiveness            | of               | a           |
| 48 Poprzeczny 2020   |   | Wong                 | 2006 a                        | randomised       | controlled  |
| 49 Poprzeczny 2020   |   | Legare               | 2008 patient                  | decision         | aid         |
| 50 Poprzeczny 2020   | pw * PDA * uc * dc *                    | Murray               | 2001 randomised               | controlled       | trial       |
| 51 Poprzeczny 2020   | pw * PDA * uc * dc *                    | Brazell              | 2015 effect                   | of               | 4           |
| 52 Poprzeczny 2020   | pw * PDA * uc * dc *                    | Van Peperstrater     | 2010 the                      | effect           | of          |
| 55 Poprzeczny 2020   | pw * PDA * uc * dc *                    | Mograth              | 2017 evaluation               | of               | a           |
| 54 Poprzeczny 2020   |   | Meade                | 2015 the                      | motherhood       | choices     |
| 55 Poprzeczny 2020   |   | Prunty               | 2008 the                      | motherhood       | choice      |
| 56 Poprzeczny 2020   |   | Beulen               | 2016 the                      | effect           | of          |
| 57 Poprzeczny 2020   | - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Kuppermann           | 2014 effect                   | of               | enhanced    |
| 58 Poprzeczny 2020   |   | Kuppermann           | 2009 computerized             | prenatal         | genetic     |
| 59 Poprzeczny 2020   |   | Nassar               | 2007 evaluation               | of               | a           |
| 60 Poprzeczny 2020   | 1 (500) (600) (600) (600) (600)         | Eden                 | 2014 a                        | randomised       | comparative |
| 61 Poprzeczny 2020   |   | Montgomery           | 2007 two                      | decision         | aids        |
|  |   |                      | 2007 (wo<br>2005 making       | choices          | for         |
| 62 Poprzeczny 2020   |   | Shorten<br>Garvelink |                               |                  |             |
| El Danisacioni acce  |   | CIRPVETINK           | 2017 feasibility              | and              | effects     |
| 63 Poprzeczny 2020   |   |                      |                               |                  | Autor       |
| 63 Poprzeczny 2020<br>64 Poprzeczny 2020<br>65 Poprzeczny 2020 | pw * PDA * uc * dc *                    | Dehlendorf<br>Nagle  | 2019 cluster<br>2008 use      | randomised<br>of | trial<br>a  |

| 66 Poprzeczny 2020   | pw * PDA * uc * kno *   | Protheroe  | 2007 effectiveness   | of   |   |
|--|---|--|--|--|---|
| 67 Poprzeczny 2020   | pw * PDA * uc * kno *   | Vuorma   | 2003 impact  | of   | patient   |
| 08 Poprzeczny 2020   | pw * PDA * uc * kno *   | Wong   | 2006 a   | randomised   | controlled  |
| Poprzeczny 2020  | pw * PDA * uc * kno *   | Legare   | 2008 patient   | decision   | aid   |
| O Poprzeczny 2020  | pw * PDA * uc * kno *   | Van Peperstrater   | 2010 the   | effect   | of  |
| Poprzeczny 2020  | pw * PDA * uc * kno *   | Mcgrath  | 2017 evaluation  | of   |   |
| Poprzeczny 2020  | pw * PDA * uc * kno *   | Meade  | 2015 the   | motherhood   | choices   |
| 3 Poprzeczny 2020  | pw * PDA * uc * kno *   | Prunty   | 2008 the   | matherhood   | choice  |
| 4 Poprzeczny 2020  | pw * PDA * uc * kno *   | Bekker   | 2004 applying  | decision   | analysis  |
| 5 Poprzeczny 2020  | pw * PDA * uc * kno *   | Beulen   | 2016 the   | effect   | of  |
| 6 Poprzeczny 2020  | pw * PDA * uc * kno *   | Bjorklund  | 2012 audiovisual   | information  | affects   |
| Poprzeczny 2020  | pw * PDA * uc * kno *   | Kuppermann   | 2014 effect  | of   | enhanced  |
| Poprzeczny 2020  | pw * PDA * uc * kno *   | Nassar   | 2007 evaluation  | of   |   |
| Poprzeczny 2020  | pw * PDA * uc * kno *   | Montgomery   | 2007 two   | decision   | aids  |
| Poprzeczny 2020  | pw * PDA * uc * kno *   | Shorten  | 2005 making  | choices  | for   |
| Poprzeczny 2020  | pw * PDA * uc * kno *   | Mccaffery  | 2010 psychosocial  | outcomes   | of  |
| Poprzeczny 2020  | pw * PDA * uc * kno *   | Garvelink  | 2017 feasibility   | and  | effects   |
| Poprzeczny 2020  | pw * PDA * uc * anx *   | Nagle  | 2008 use   | of   |   |
| Poprzeczny 2020  | pw * PDA * uc * anx *   | Protheroe  | 2007 effectiveness   | of   |   |
| Poprzeczny 2020  | pw * PDA * uc * anx *   | Wong   | 2006 a   | randomised   | controlled  |
| Poprzeczny 2020  | pw * PDA * uc * anx *   | Murray   | 2001 randomised  | controlled   | trial   |
| Poprzeczny 2020  | pw * PDA * uc * anx *   | Van Peperstrater   | 2010 the   | effect   | of  |
| Poprzeczny 2020  | pw * PDA * uc * anx *   | Mograth  | 2017 evaluation  | of   |   |
| Poprzeczny 2020  | pw * PDA * uc * anx *   | Meade  | 2015 the   | motherhood   | choices   |
| Poprzeczny 2020  | pw * PDA * uc * anx *   | Prunty   | 2008 the   | motherhood   | choice  |
| Poprzeczny 2020  | pw * PDA * uc * anx *   | Bekker   | 2004 applying  | decision   | analysis  |
| Poprzeczny 2020  | pw * PDA * uc * anx *   | Beulen   | 2016 the   | effect   | of  |
| Poprzeczny 2020  | pw * PDA * uc * anx *   | Nessar   | 2007 evaluation  | of   |   |
| Poprzeczny 2020  | pw * PDA * uc * anx *   | Montgomery   | 2007 two   | decision   | aids  |
| Poprzeczny 2020  | pw * PDA * uc * sat *   | Nassar   | 2007 evaluation  | of   |   |
| Poprzeczny 2020  | pw * PDA * uc * sat *   | Montgomery   | 2007 two   | decision   | aids  |
| 7 Say 2011   | pw * PDA * uc * anx *   | Bekker   | 2004 applying  | decision   | analysis  |
| 6 Say 2011   | pw * PDA * uc * anx *   | Graham   | 2000 randomised  | controlled   | trial   |
| 9 Say 2011   | pw * PDA * uc * anx *   | Hewison  | 2001 use   | af   | videotapes  |
| 0 Say 2011   | pw * PDA * uc * anx *   | Raynes-Greenow   | 2010 assisting   | Informed   | decision  |
| 1 Say 2011   | pw * PDA * uc * anx *   | Nagle  | 2008 use   | of   | a   |
| 2 Say 2011   | pw * PDA * uc * anx *   | Thornton   | 1995 a   | randomised   | trial   |
| Say 2011   | pw * PDA * uc * anx *   | Hunter   | 2005 a   | randomised   | trial   |
| 4 Say 2011   | pw * PDA * uc * kno *   | Bekker   | 2004 applying  | decision   | analysis  |
| Say 2011   | pw * PDA * uc * kno *   | Graham   | 2000 randomised  | controlled   | trial   |
| Say 2011   | pw *PDA *uc *kno *  | Hewison  | 2000 randomised<br>2001 use  | of   |   |
| 10 (57 LT) (50 C)  | pw *PDA *uc *kno *  |  |  |  | videntapes  |
| 7 Say 2011   | pw * PDA * uc * kno *   | Leung  | 2004 randomised<br>2008 use  | trial<br>of  | comparing   |
| Say 2011   | pw * PDA * uc * kno *   | Nagle  |  |  |   |
| 9 Say 2011   | pw * PDA * uc * kno *   | Thornton<br>Hunter   | 1995 a<br>2005 a   | randomised<br>randomised   | trial<br>trial  |
| 5ay 2011   | pw * PDA * uc * kno *   |  | 2005 a<br>2007 two   | decision   | aids  |
| say 2011   |   | Montgomery   |  |  |   |
| 5ay 2011   |   |  | 2005 making  | choices  | for   |
| Fee: 3011  | pw * PDA * uc * kno *   | Shorten  |  | el metallica e   |   |
| \$45.500 PM  | pw * POA * uc * sat *   | Bekker   | 2004 applying  | decision   | analysis  |
| 4 Say 2011   | pw * PDA * uc * sat *<br>pw * PDA * uc * sat *  | Bekker<br>Graham   | 2004 applying<br>2000 randomised   | controlled   | trial   |
| 4 Say 2011<br>5 Say 2011   | pw * PDA * uc * sat *<br>pw * PDA * uc * sat *<br>pw * PDA * uc * sat *   | Bekker<br>Graham<br>Hewison  | 2004 applying<br>2000 randomised<br>2001 use   | controlled<br>of   | trial<br>videotapes   |
| 4 Say 2011<br>5 Say 2011<br>0 Say 2011   | pw * PDA * uc * sat *   | Bekker<br>Graham<br>Hewison<br>Leung   | 2004 applying<br>2000 randomised<br>2001 use<br>2004 randomised  | controlled<br>of<br>trial  | trial<br>videotapes<br>comparing  |
| 4 Say 2011<br>5 Say 2011<br>6 Say 2011<br>7 Say 2011   | pw * PDA * uc * sat *   | Bekker<br>Graham<br>Hewison<br>Leung<br>Nagle  | 2004 applying<br>2000 randomised<br>2001 use<br>2004 randomised<br>2008 use  | controlled<br>of<br>trial<br>of  | trial<br>videotapes<br>comparing<br>a   |
| 4 Say 2011<br>5 Say 2011<br>6 Say 2011<br>7 Say 2011<br>8 Say 2011   | pw * PDA * uc * sat *   | Bekker<br>Graham<br>Hewison<br>Leung<br>Nagle<br>Thornton  | 2004 applying<br>2000 randomised<br>2001 use<br>2004 randomised<br>2008 use<br>1995 a  | controlled<br>of<br>trial<br>of<br>randomised  | trial<br>videotapes<br>comparing<br>a<br>trial  |
| Say 2011<br>Say 2011<br>Say 2011<br>Say 2011<br>Say 2011   | pw * PDA * uc * sat *   | Bekker<br>Graham<br>Hewison<br>Leung<br>Nagle<br>Thornton<br>Hunter  | 2004 applying<br>2000 randomised<br>2001 use<br>2004 randomised<br>2005 use<br>1995 a<br>2005 a  | of<br>trial<br>of<br>randomised<br>randomised  | trial<br>videotapes<br>comparing<br>a<br>trial<br>trial   |
| Say 2011<br>Say 2011<br>Say 2011<br>Say 2011<br>Say 2011<br>Say 2011<br>Say 2011   | pw * PDA * uc * sat *   | Bekker<br>Graham<br>Hewtson<br>Leung<br>Nagle<br>Thornton<br>Hunter<br>Bekker                                  | 2004 applying<br>2000 randomised<br>2001 use<br>2004 randomised<br>2008 use<br>1995 a<br>2005 a<br>2004 applying   | controlled<br>of<br>trial<br>of<br>randomised<br>randomised<br>decision  | trial videotapes comparing a trial trial analysis   |
| 4 Say 2011<br>5 Say 2011<br>0 Say 2011<br>7 Say 2011<br>8 Say 2011<br>0 Say 2011<br>0 Say 2011   | pw * PDA * uc * sat *   | Bekker<br>Graham<br>Hewtson<br>Leung<br>Nagle<br>Thornton<br>Hunter<br>Bekker<br>Graham                        | 2004 applying<br>2000 randomised<br>2001 use<br>2004 randomised<br>2008 use<br>1995 a<br>2005 a<br>2004 applying<br>2000 randomised  | controlled<br>of<br>trial<br>of<br>randomised<br>randomised<br>decision<br>controlled  | trial videotapes comparing a trial trial analysis trial   |
| 4 Say 2011<br>5 Say 2011<br>0 Say 2011<br>7 Say 2011<br>8 Say 2011<br>0 Say 2011<br>0 Say 2011<br>5 Say 2011   | pw * PDA * uc * sat * pw * PDA * uc * id * pw * PDA * uc * id * pw * PDA * uc * id *  | Bekker Graham Hewison Leung Nagle Thornton Hunter Bekker Graham Hewison  | 2004 applying<br>2000 randomised<br>2001 use<br>2004 randomised<br>2008 use<br>1995 a<br>2005 a<br>2004 applying<br>2000 randomised<br>2001 use  | controlled<br>of<br>trial<br>of<br>randomised<br>randomised<br>decision<br>controlled<br>of  | trial videotapes comparing a trial trial analysis trial videotapes                              |
| 4 Say 2011<br>5 Say 2011<br>0 Say 2011<br>7 Say 2011<br>5 Say 2011<br>0 Say 2011<br>0 Say 2011<br>5 Say 2011<br>2 Say 2011   | pw * PDA * uc * sat *   | Bekker Graham Hewison Leung Nagle Thornton Hunter Bekker Graham Hewison Leung                                  | 2004 applying 2000 randomised 2001 use 2004 randomised 2006 use 1995 a 2005 a 2004 applying 2000 randomised 2001 use   | controlled<br>of<br>trial<br>of<br>randomised<br>randomised<br>decision<br>controlled<br>of<br>trial                                   | trial videotapes comparing a trial trial analysis trial videotapes comparing                    |
| 4 Say 2011<br>5 Say 2011<br>0 Say 2011<br>7 Say 2011<br>6 Say 2011<br>0 Say 2011<br>1 Say 2011<br>1 Say 2011<br>2 Say 2011<br>2 Say 2011<br>3 Say 2011   | pw * PDA * uc * sat * pw * PDA * uc * id *  | Bekker Graham Hewison Leung Nagle Thornton Hunter Bekker Graham Hewison Leung Nagle                            | 2004 applying 2000 randomised 2001 use 2004 randomised 2005 use 1995 a 2005 a 2004 applying 2000 randomised 2001 use 2004 randomised 2001 use  | controlled<br>of<br>trial<br>of<br>randomised<br>randomised<br>decision<br>controlled<br>of<br>trial<br>of                             | trial videotapes comparing a trial trial analysis trial videotapes comparing a                  |
| 4 Say 2011<br>5 Say 2011<br>7 Say 2011<br>7 Say 2011<br>8 Say 2011<br>0 Say 2011<br>0 Say 2011<br>1 Say 2011<br>2 Say 2011<br>2 Say 2011<br>3 Say 2011<br>4 Say 2011<br>5 Say 2011   | pw * PDA * uc * sat *                                   | Bekker Graham Hewison Leung Nagle Thornton Hunter Bekker Graham Hewison Leung Nagle Thornton                   | 2004 applying 2000 randomised 2001 use 2004 randomised 2005 use 1995 a 2005 a 2004 applying 2000 randomised 2001 use 2004 randomised 2006 use 1995 a   | controlled<br>of<br>trial<br>of<br>randomised<br>randomised<br>decision<br>controlled<br>of<br>trial<br>of<br>randomised               | trial videotapes comparing a trial trial analysis trial videotapes comparing a trial            |
| 4 Say 2011<br>5 Say 2011<br>0 Say 2011<br>7 Say 2011<br>8 Say 2011<br>0 Say 2011<br>1 Say 2011<br>2 Say 2011<br>3 Say 2011<br>3 Say 2011<br>4 Say 2011<br>5 Say 2011<br>5 Say 2011<br>5 Say 2011   | pw * PDA * uc * sat * pw * PDA * uc * id * | Bekker Graham Hewison Leung Nagle Thornton Hunter Bekker Graham Hewison Leung Nagle                            | 2004 applying<br>2000 randomised<br>2001 use<br>2004 randomised<br>2008 use<br>1995 a<br>2005 a<br>2004 applying<br>2000 randomised<br>2001 use<br>2001 use<br>2006 use<br>1995 a<br>2005 a                  | controlled<br>of<br>trial<br>of<br>randomised<br>randomised<br>decision<br>controlled<br>of<br>trial<br>of<br>randomised<br>randomised | trial videotapes comparing a trial trial analysis trial videotapes comparing a trial trial      |
| 3 Say 2011<br>4 Say 2011<br>5 Say 2011<br>6 Say 2011<br>7 Say 2011<br>8 Say 2011<br>9 Say 2011<br>1 Say 2011<br>1 Say 2011<br>2 Say 2011<br>2 Say 2011<br>3 Say 2011<br>4 Say 2011<br>5 Say 2011<br>5 Say 2011<br>5 Say 2011<br>5 Say 2011 | pw * PDA * uc * sat * pw * PDA * uc * id *  | Bekker Graham Hewtson Leung Nagle Thornton Hunter Bekker Graham Hewtson Leung Nagle Thornton Hunter Montgomeny | 2004 applying<br>2000 randomised<br>2001 use<br>2004 randomised<br>2008 use<br>1995 a<br>2005 a<br>2004 applying<br>2000 randomised<br>2001 use<br>2004 randomised<br>2006 use<br>1995 a<br>2005 a<br>2005 a | controlled<br>of<br>trial<br>of<br>randomised<br>decision<br>controlled<br>of<br>trial<br>of<br>randomised<br>randomised<br>decision   | trial videotapes comparing a trial trial analysis trial videotapes comparing a trial trial aids |
| 4 Say 2011<br>5 Say 2011<br>7 Say 2011<br>7 Say 2011<br>8 Say 2011<br>0 Say 2011<br>0 Say 2011<br>1 Say 2011<br>2 Say 2011<br>3 Say 2011<br>3 Say 2011<br>5 Say 2011<br>5 Say 2011<br>5 Say 2011<br>5 Say 2011                             | pw * PDA * uc * sat * pw * PDA * uc * id * | Bekker Graham Hewtson Leung Nagle Thornton Hunter Bekker Graham Hewison Leung Nagle Thornton Hunter            | 2004 applying<br>2000 randomised<br>2001 use<br>2004 randomised<br>2008 use<br>1995 a<br>2005 a<br>2004 applying<br>2000 randomised<br>2001 use<br>2001 use<br>2006 use<br>1995 a<br>2005 a                  | controlled<br>of<br>trial<br>of<br>randomised<br>randomised<br>decision<br>controlled<br>of<br>trial<br>of<br>randomised<br>randomised | trial videotapes comparing a trial trial analysis trial videotapes comparing a trial trial      |

| 130 Skjoth 2015  | pw * PDA * uc * kno * | Glazier        | 1997 written      | patient     | information        |
|------------------|-----------------------|----------------|-------------------|-------------|--------------------|
| 31 Skjoth 2015   | pw * PDA * uc * kno * | Nagle          | 2008 use          | af          | 2                  |
| 132 Skjoth 2015  | pw * PDA * uc * kno * | Bjorklund      | 2012 audiovisual  | information | affects            |
| 33 Skjoth 2015   | pw * PDA * uc * kno * | Hewison        | 2001 use          | af          | videotapes         |
| 34 Stacey 2017   | pw * PDA * uc * cho * | Bjorklund      | 2012 audiovisual  | information | affects            |
| 35 Stacey 2017   | pw * PDA * uc * cho * | Kuppermann     | 2014 effect       | af          | enhanced           |
| 36 Stacey 2017   | pw * POA * uc * cho * | Bekker         | 2004 applying     | decision    | analysis           |
| 37 Stacey 2017   | pw * POA * uc * cho * | Nagle          | 2008 use          | af          | a                  |
| 38 van Agt 2014  | pw * PDA * uc * kno * | Nagle          | 2008 use          | of          | a                  |
| 39 van Agt 2014  | pw * PDA * uc * kno * | Kuppermann     | 2009 computerized | prenatal    | genetic<br>affects |
| 40 van Agt 2014  | pw * PDA * uc * kno * | Bjorklund      | 2012 audiovisual  | Information |                    |
| 41 van Agt 2014  | pw * PDA * uc * kno * | Michie         | 1997 patient      | decision    | making             |
| 42 van Agt 2014  | pw * PDA * uc * kno * | Hwa            | 2010 Informed     | consent     | for<br>trial<br>a  |
| 43 Vlemmix 2012  | pw * PDA * uc * dc *  | Arimori        | 2006 randomised   | controlled  |                    |
| 44 Vlemmix 2012  | pw * POA * uc * dc *  | Nagle          | 2008 use          | af          |                    |
| 45 Vlemmix 2012  | pw * PDA * uc * dc *  | Nassar         | 2007 evaluation   | af          | a                  |
| 46 Vlemmix 2012  | pw * PDA * uc * dc *  | Montgomery     | 2007 two          | decision    | aids               |
| 47 Vlemmix 2012  | pw * PDA * uc * dc *  | Raynes-Greenow | 2010 assisting    | Informed    | decision           |
| 48 Viermmix 2012 | pw * PDA * uc * dc *  | Shorten        | 2005 making       | choices     | for                |
| 49 Vlemmix 2012  | pw * PDA * uc * kno * | Nassar         | 2007 evaluation   | af          | a                  |
| 50 Viermix 2012  | pw * PDA * uc * kno * | Montgomery     | 2007 two          | decision    | aids               |
| 51 Viemmix 2012  | pw * PDA * uc * kno * | Raynes-Greenow | 2010 assisting    | Informed    | decision           |
| 52 Vlemmix 2012  | pw * POA * uc * kno * | Wong           | 2006 a            | randomised  | controlled         |
| 53 Vlemmix 2012  | pw * PDA * uc * kno * | Bekker         | 2004 applying     | decision    | analysis           |
| 34 Vlemmix 2012  | pw * PDA * uc * anx * | Nassar         | 2007 evaluation   | of .        | 4                  |
| 55 Vlemmix 2012  | pw * PDA * uc * anx * | Montgomery     | 2007 two          | decision    | alds               |
| 56 Viemmix 2012  | pw * PDA * uc * anx * | Raynes-Greenow | 2010 assisting    | Informed    | decision           |
| 57 Vlemmix 2012  | pw * PDA * uc * anx * | Wong           | 2006 a            | randomised  | controlled         |
| 58 Viermix 2012  | pw * PDA * uc * anx * | Bekker         | 2004 applying     | decision    | analysis           |
| 50 Viemmix 2012  | pw * PDA * uc * anx * | Nagle          | 2008 use          | af          | a                  |
| 50 Vlemmix 2012  | pw * PDA * uc * cho * | Nassar         | 2007 evaluation   | af          | a                  |
| 61 Vlemmix 2012  | pw * PDA * uc * cho * | Leung          | 2004 randomised   | trial       | comparing          |

|              | pw * PDA * uc * cho *  | Shorten        |   | choi   |
|--------------|--|----------------|---|--|
|              | pw * PDA * uc * id *   | Nassar         | 2007 evaluation   | of   |
| Vlemmix 2012 | pw * PDA * uc * id *   | Raynes-Greenow | 2010 assisting  | info   |
| Vlemmix 2012 | pw * PDA * uc * id *   | Leung          | 2004 randomised   | trial  |
| Vlemmix 2012 | pw * PDA * uc * sat *  | Montgomery     | 2007 two  | deci   |
| Vlemmix 2012 | pw * PDA * uc * sat *  | Raynes-Greenow | 2010 assisting  | info   |
| Vlemmix 2012 | pw * PDA * uc * sat *  | Hunter         | 2005 a  | ranc   |
| Yu 2021      | pw * PDA * uc * dc *   | Arimori        | 2006 randomised   | cont   |
| Yu 2021      | pw * PDA * uc * dc *   | Hunter         | 2005 a  | ranc   |
| Yu 2021      | pw * PDA * uc * dc *   | Beulen         | 2016 the  | effe   |
| Yu 2021      | pw * PDA * uc * dc *   | Carlson        | 2019 use  | of   |
| Yu 2021      | pw * PDA * uc * dc *   | Kuppermann     | 2009 computerized   | prer   |
| Yu 2021      | pw * PDA * uc * dc *   | Kuppermann     | 2014 effect   | of   |
| Yu 2021      | pw * PDA * uc * dc *   | Nagle          | 2008 use  | of   |
| Yu 2021      | pw * PDA * uc * kno *  | Bekker         | 2004 applying   | deci   |
| Yu 2021      | pw * PDA * uc * kno *  | Bjorklund      | 2012 audiovisual  | info   |
| Yu 2021      | pw * PDA * uc * kno *  | Carlson        | 2019 use  | of   |
| Yu 2021      | pw * PDA * uc * kno *  | Hanprasertpong | 2013 comparison   | of   |
| Yu 2021      | pw * PDA * uc * kno *  | Hewison        | 2001 use  | of   |
| Yu 2021      | pw * PDA * uc * kno *  | Hunter         | 2005 a  | rand   |
| Yu 2021      | pw * PDA * uc * kno *  | Kuppermann     | 2009 computerized   | prer   |
| Yu 2021      | pw * PDA * uc * kno *  | Michie         | 1997 patient  | deci   |
| Yu 2021      | pw * PDA * uc * kno *  | Rothwell       | 2019 the  | use  |
| Yu 2021      | pw * PDA * uc * kno *  | Skjoth         | 2015 informed   | choi   |
| Yu 2021      | pw * PDA * uc * kno *  | Kuppermann     | 2014 effect   | of   |
| Yu 2021      | pw * PDA * uc * anx *  | Bekker         | 2004 applying   | deci   |
| Yu 2021      | pw * PDA * uc * anx *  | Beulen         | 2016 the  | effe   |
| Yu 2021      | pw * PDA * uc * anx *  | Hanprasertpong | 2013 comparison   | of   |
| Yu 2021      | pw * PDA * uc * anx *  | Hewison        | 2001 use  | of   |
| Yu 2021      | pw * PDA * uc * anx *  | Hunter         | 2005 a  | rand   |
| Yu 2021      | pw * PDA * uc * anx *  | Michie         | 1997 patient  | deci   |
| Yu 2021      | pw * PDA * uc * anx *  | Nagle          | 2008 use  | of   |
|              | Vlemmix 2012 Yu 2021 | VIemmix 2012   | VIemmix 2012         pw * PDA * uc * id *         Nassar           Vlemmix 2012         pw * PDA * uc * id *         Raynes-Greenow           Vlemmix 2012         pw * PDA * uc * id *         Leung           Vlemmix 2012         pw * PDA * uc * sat *         Montgomery           Vlemmix 2012         pw * PDA * uc * sat *         Raynes-Greenow           Vlemmix 2012         pw * PDA * uc * sat *         Hunter           Yu 2021         pw * PDA * uc * dc *         Arimori           Yu 2021         pw * PDA * uc * dc *         Hunter           Yu 2021         pw * PDA * uc * dc *         Beulen           Yu 2021         pw * PDA * uc * dc *         Kuppermann           Yu 2021         pw * PDA * uc * dc *         Kuppermann           Yu 2021         pw * PDA * uc * dc *         Kuppermann           Yu 2021         pw * PDA * uc * dc *         Kuppermann           Yu 2021         pw * PDA * uc * dc *         Raylee           Yu 2021         pw * PDA * uc * kno *         Bekker           Yu 2021         pw * PDA * uc * kno *         Bekker           Yu 2021         pw * PDA * uc * kno *         Hanprasertpong           Yu 2021         pw * PDA * uc * kno *         Hunter           Yu 2021         pw * PDA | VIemmix 2012         pw * PDA * uc * id *         Raynes-Greenow         2007 evaluation           VIemmix 2012         pw * PDA * uc * id *         Raynes-Greenow         2010 assisting           VIemmix 2012         pw * PDA * uc * id *         Leung         2004 randomised           VIemmix 2012         pw * PDA * uc * sat *         Montgomery         2007 two           VIemmix 2012         pw * PDA * uc * sat *         Raynes-Greenow         2010 assisting           VIemmix 2012         pw * PDA * uc * ds *         Hunter         2005 a           VIemmix 2012         pw * PDA * uc * dc *         Arimori         2006 randomised           VIemmix 2012         pw * PDA * uc * dc *         Hunter         2005 a           VIEMMIX 2012         pw * PDA * uc * dc *         Hunter         2005 a           VIEMMIX 2021         pw * PDA * uc * dc *         Beulen         2016 the           VI 2021         pw * PDA * uc * dc *         Kuppermann         2009 computerized           VI 2021         pw * PDA * uc * dc *         Kuppermann         2014 effect           VI 2021         pw * PDA * uc * dc *         Kuppermann         2014 effect           VI 2021         pw * PDA * uc * kno *         Bekker         2004 applying           VI 2021         pw * PDA * |

# Conclusions from Evidence Rating System by Outcome

| Outcome             | Conclusions                                      |  |   |  |
|---------------------|--|--|---|--|
| Knowledge           | Very strong evidence for a Positive effect.      |  |   |  |
| Decisional Conflict | Strong evidence for a Positive effect.           |  |   |  |
| Informed choice     | Strong evidence for a Positive effect.           |  |   |  |
| Anxiety             | Very weak evidence for a Positive effect.        |  | I | Disagreement between high and moderate quality SRs |
| Satisfaction        | Very weak evidence for a Non-Significant effect. |  | [ | Disagreement between high and moderate quality SRs |