Citation

Review question(s)
Among patients of reproductive age in primary care settings globally, what are the effects of asking a reproductive intention question on pregnancy-related outcomes?

Searches
Articles published since 2000 in English and indexed in the following databases will be searched: Ovid MEDLINE; PubMed; CINAHL; EMBASE; CRD/DARE databases; Web of Science; ISRCTN registry; Clinicaltrials.gov; Cochrane Library.

Additionally, the references of highly relevant articles will be hand-searched.

Link to search strategy
http://ovidsp.tx.ovid.com.ezproxy.library.ubc.ca/sp-3.16.0a/ovidweb.cgi

Types of study to be included
The review will consider all studies evaluating the effectiveness or efficacy of the incorporation of patient's pregnancy intentions into their primary care.

Condition or domain being studied
Unwanted pregnancy, unintended pregnancy, adverse pregnancy outcomes, and healthy maternal and newborn outcomes are being studied.

Participants/ population
Inclusion criteria: patients of reproductive age (15–49) presenting to primary health care settings, defined as a health care setting that is the first point of care for undifferentiated patients with an undiagnosed condition or concern.

Exclusion criteria: patients who are not of reproductive age (younger than 15 or older than 49) and individuals of reproductive age presenting to clinical settings other than primary care.

Intervention(s), exposure(s)
Inclusion criteria: assessment of pregnancy intention and follow-up care. Examples include asking women what their pregnancy or fertility intentions are for the coming year or the development of a reproductive life plan and subsequent preconception or contraception counseling and care as appropriate.

Exclusion criteria: assessments or counseling not related to pregnancy intention or no discussion of pregnancy intention.

Comparator(s)/ control
Comparator: patients of reproductive age in primary care settings with whom no discussion of pregnancy intention occurred.
**Context**
Studies in primary care settings will be assessed. Primary care is defined as a health care setting that is the first point of care for undifferentiated patients with an undiagnosed condition or concern. Outcomes that occur within 2 years after the intervention will be considered for inclusion.

**Outcome(s)**
**Primary outcomes**
Any pregnancy related outcome, including unwanted pregnancy, unintended pregnancy, adverse pregnancy outcomes, contraception uptake, and healthy maternal and newborn outcomes.

**Secondary outcomes**
None.

**Data extraction, (selection and coding)**
Titles and/or abstracts of studies retrieved using the search strategy and those from hand-searching citations of highly relevant articles will be screened independently by two review authors to identify studies that potentially meet the inclusion criteria outlines above. The full text of these potentially eligible studies will be retrieved and independently assessed for eligibility by two review team members. Any disagreement between them over the eligibility of particular studies will be resolved through discussion with a third reviewer.

A pre-piloted form will be used to extract data from the included studies for assessment of study quality and evidence synthesis. Extracted information will include: study setting; study population and participant demographics and baseline characteristics; details of the interventions and control conditions; study methodology; recruitment and study completion rates; outcomes and times of measurement; indicators of acceptability to users; suggested mechanisms of intervention action; information for assessment of the risk of bias. Two reviewers will extract data independently, discrepancies will be identified and resolved through discussion (with a third author where necessary). Missing data will be requested from study authors.

**Risk of bias (quality) assessment**
For experimental studies, two review authors will independently assess the risk of bias in included studies by considering the following characteristics:

Randomization sequence generation: was the allocation sequence adequately generated? Treatment allocation concealment: was the allocated treatment adequately concealed from study participants and clinicians and other healthcare or research staff at the enrollment stage?

Blinding: were the personnel assessing outcomes and analyzing data sufficiently blinded to the intervention allocation throughout the trial?

Completeness of outcome data: were participant exclusions, attrition and incomplete outcome data adequately addressed in the published report?

Selective outcome reporting: is there evidence of selective outcome reporting and might this have affected the study results?

Other sources of bias: was the trial apparently free of any other problems that could produce a high risk of bias?

For observational and quasi-experimental studies, two review authors will independently assess the risk of bias using the Newcastle-Ottawa scale. Included case control studies will be assessed by considering the following characteristics:

Selection of study groups: is the case definition adequate? Are the cases representative? From where are controls selected? Are controls adequately defined?

Comparability of groups: Are cases and controls comparable on the basis of the design or analysis?
Ascertainment of exposure/outcome: How is the exposure ascertained? Is the same method of ascertainment of exposure used for cases and controls? Is the non-response rate the same for cases and controls?

Included cohort studies will be assessed by considering the following characteristics:

Selection: Is the exposed cohort representative of the general population? Is the non-exposed cohort drawn from the same community as the exposed cohort? How is the exposure ascertained? Is it demonstrated that the outcome of interest was not present at the start of the study?

Comparability: Are the cohorts comparable on the basis of the design or analysis?

Outcome: How is the outcome assessed? Was the follow-up long enough for outcomes to occur? Was the follow-up of cohorts adequate?

Disagreements between the review authors over the risk of bias in particular studies will be resolved by discussion, with involvement of a third review author where necessary.

**Strategy for data synthesis**

We will provide a narrative synthesis of the findings from the included studies, structured around the developing a theory of how the intervention works, why, and for whom; developing a preliminary synthesis of findings of included studies; exploring relationships within and between studies; and assessing the robustness of the synthesis. We will provide summaries of intervention effects for each study by calculating odds ratios (for dichotomous outcomes) or standardized mean differences (for continuous outcomes).

We anticipate that there will be limited scope for meta-analysis because of the range of different outcomes measured across the small number of existing trials. However, where studies have used the same type of intervention and comparator, with the same outcome measure, we will pool the results using a random-effects meta-analysis, with standardized mean differences for continuous outcomes and risk ratios for binary outcomes, and calculate 95% confidence intervals and two sided p-values for each outcome. In studies where the effects of clustering have not been taken into account, we will adjust the standard deviations for the design effect.

All results will be subject to double data entry. Heterogeneity will be assessed statistically using the standard Chi-square and also explored using sensitivity analyses based on the study quality and different quantitative study designs included in this review. Where statistical pooling is not possible, the findings will be presented in narrative form including tables and figures to aid in data presentation where appropriate. We will also assess evidence of publication bias.

**Analysis of subgroups or subsets**

We will separately explore the effects of asking pregnancy intention questions for men and for women.

**Contact details for further information**

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Conflicts of interest
None known

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Ongoing

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Stage of review at time of this submission

<table>
<thead>
<tr>
<th>Stage of review</th>
<th>Started</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary searches</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Piloting of the study selection process</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Formal screening of search results against eligibility criteria</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Data extraction</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Risk of bias (quality) assessment</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Data analysis</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
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