Counseling in the clinical setting to prevent unintended pregnancy: an evidence-based research agenda

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CRD summary
This review assessed counselling in US clinical settings and concluded that there were too few good quality studies to assess the effect of counselling on unintended pregnancies. The review had methodological limitations but the search was broad and only four poor-quality studies were found, which suggests that the main conclusion is likely to be reliable.

Authors' objectives
To assess the effect of counselling in a clinical setting in the USA to prevent unintended pregnancy in adults and adolescents, and to make recommendations for research.

Searching
MEDLINE, CINAHL, PsycLIT and the Cochrane Library were searched from 1985 to May 2000. Details of the search strategy and problems encountered locating relevant studies were presented. The reference lists in published systematic reviews, relevant reports and the second Guide to Clinical Preventative Services (see Other Publications of Related Interest no.1) were checked. Experts in the field were contacted for details of additional studies. Studies that collected data after 1984 and reports published in the English language were included.

Study selection
Study designs of evaluations included in the review
Studies that appeared to be experimental, cohort designs, cross-sectional studies, or that used qualitative methodology, were eligible for inclusion. Studies were included regardless of their validity. Studies with methodology too flawed to answer the review questions were subsequently excluded. The included studies were randomised controlled trials (RCTs), longitudinal cohort studies, or cohort studies with retrospective analysis.

Specific interventions included in the review
Studies of counselling targeted at the prevention of unintended pregnancy, which were conducted in a clinical setting, were eligible for inclusion only if they were conducted in the USA. The included studies were of slide presentation plus reproductive health consultation with a health professional compared with control; traditional counselling compared with contingency planning counselling; individual and group interventions as part of a wider programme; and experimental counselling.

Participants included in the review
The included studies were of pregnant teenagers aged 12 to 19 years (75% African American); males aged 15 to 18 years who were enrolled in a Health Maintenance Organisation (91% white); women younger than 20 years who were attending a family planning clinic (FPC) for contraception (5% white, 41% African American, 50% Hispanic); and females younger than 18 years who were attending a FPC (98% white).

Outcomes assessed in the review
The included studies assessed the following: factors associated with a repeat pregnancy within 2 years; sexual activity, female partner's use of oral contraception, knowledge about sexually transmitted diseases (STDs) and fertility cycle at 1 year; effective use of oral contraception and unintended pregnancy at 1 year; and the knowledge and use of contraceptives at 1 year. The included studies collected data using self-administered questionnaires, questionnaires, and face-to-face or telephone interviews.

How were decisions on the relevance of primary studies made?
Two authors independently scanned titles and abstracts and agreed to exclude studies not meeting the inclusion
Assessment of study quality
Validity appears to have been assessed by considering the sample size, data collection method, validity of the questionnaires, potential for selection bias, adequacy of information about the participants, description and standardisation of the intervention, drop-out rates, generalisability, and analysis on an intention-to-treat basis. The authors did not state who performed the validity assessment.

Data extraction
The authors did not state how the data were extracted for the review, or how many reviewers performed the data extraction.

Methods of synthesis
How were the studies combined?
The studies were grouped according to the question addressed (effectiveness or harms) and a narrative synthesis was undertaken.

How were differences between studies investigated?
Differences between the studies were considered in relation to the comparability of the studies and internal and external validity.

Results of the review
Four studies addressed the effectiveness of counselling: one RCT (1,449 males), one cohort with retrospective analysis (79 females) and two longitudinal studies (one with 823 females and one with 1,256 females).

There was no good-quality evidence available to assess the effectiveness of counselling. The four studies were not well designed and had poor internal and external validity. The interventions were diverse and could not be compared.

One RCT (1,449 teenage boys) showed no significant difference in the proportion who were sexually active 1 year post-intervention, but showed that the intervention significantly increased contraceptive use and knowledge about STDs. Methodological flaws included the potential for selection bias (high rates of refusal to participate), a nonrepresentative population (higher income white males) and the lack of intention-to-treat analysis.

One cohort study (79 pregnant teenagers) showed that at 6 months the programme significantly increased contraceptive use and knowledge between teenagers with and without repeat pregnancy, but found no significant difference at 2 years. The number of participants followed up at 2 years was small. Methodological flaws included the small sample size, an unvalidated questionnaire and a high drop-out rate.

One longitudinal study (823 women attending a FPC) showed no significant difference between enhanced contingency planning and conventional family planning in continuing the use of contraception at 1 year. Methodological flaws included the potential for selection bias, few details of the participants and a high drop-out rate.

One longitudinal study (1,256 teenagers attending a FPC) showed that clinics using experimental counselling significantly increased continued use of contraception and had fewer problems with the chosen method than nonexperimental clinics. Methodological flaws included the potential for selection bias, the potential for non-comparable treatment groups and a high drop-out rate.

No experimental studies that analysed harms were identified.

Cost information
None. The review also aimed to assess the cost-effectiveness of counselling in preventing unintended pregnancies, but
found no relevant experimental or observation studies.

**Authors' conclusions**
There were insufficient good-quality studies to assess the effectiveness of counselling on unintended pregnancy.

**CRD commentary**
The review question was clear in terms of the study design and intervention, but the inclusion criteria for the participants and outcomes were not defined. Several relevant sources were searched and the search terms were stated. Two reviewers independently selected the studies, which reduces the potential for bias and errors. The methods used to assess validity and extract the data were not described. Hence, efforts made to reduce errors and bias cannot be judged. Validity was assessed and the results were presented in the data extraction tables, along with relevant information on the included studies. A narrative synthesis was appropriate given the small number of studies. The results were summarised, taking account of study validity, and some of the limitations of the review were discussed. The evidence presented appears to support the authors' conclusions.

The review also explored factors influencing contraceptive use and the association between behaviour and prevention of unintended pregnancy. This abstract only considered the effectiveness and harms of counselling.

**Implications of the review for practice and research**
Practice: The authors did not state any implications for practice.

Research: The authors stated that further research is required. This should address: factors influencing women moving from one category of contraception to another;

routine interaction between clinicians and patients;

the standardisation of measures of ambivalence towards becoming pregnant;

the contribution of men towards contraceptive practices;

the testing of methods of assessment, education and counselling on contraception using RCTs;

the influence of the requirement for pelvic examination on satisfaction with services and pregnancy rates;

the influence of cultural, social, psychological, physiological and economic variables on contraceptive use; and

the level of burden caused by unintended pregnancy.

**Bibliographic details**

**PubMedID**
12586322

**Other publications of related interest**
Subject indexing assigned by NLM

**MeSH**
Adolescent; Adult; Contraception; Counseling; Family Planning Services; Female; Health Knowledge, Attitudes, Practice; Humans; MEDLINE; Patient Compliance; Pregnancy /statistics & numerical data; United States

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**Record Status**
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.