



September 2009 – SUPPORT Summary of a systematic review

Do interventions to improve communication between health professionals and women improve maternity care?

The quality of interaction between patients and their carers may impact on a variety of aspects of patient well being. Communication in maternity care between health professionals and women has received much attention at official and professional levels in recent years. There have, however, been few evaluations of the effects of strategies to improve communication between women and their carers during maternity.

Key messages

- Providing women with antenatal testing information probably leads them to make more informed decisions about antenatal screening tests;
- Antenatal testing information and woman-held maternity records may reduce women's anxiety during pregnancy, and make them feel more in control of the pregnancy;
- Computer assisted history taking may result in more time being spent on booking interviews, in care providers asking more questions and giving less advice and feedback, and in more clinical actions being taken by providers;
- The interventions (i.e. antenatal testing information, computer-assisted history taking, woman-held maternity records, and provision of informed choice leaflets) may not improve women's knowledge and understanding, women's satisfaction, or their health outcomes.
- These findings come from studies conducted in high-income country settings having high literacy rates among women, high access to health care, and computer technology in the health services. They may be transferrable to high and middle-income settings in LMIC which have a similar background and backup support, but may not be transferable to many low income settings.



Who is this summary for?

People deciding on strategies to improve maternity care

! This summary includes:

- Key findings from research based on a systematic review
- Considerations about the relevance of this research for low- and middle-income countries

X Not included:

- Recommendations
- Additional evidence not included in the systematic review
- Detailed descriptions of interventions or their implementation

This summary is based on the following systematic review:

Rowe RE, Garcia J, Macfarlane AJ, Davidson LL. Improving communication between health professionals and women in maternity care: a structured review. *Health Expectations* 2002;5:63–83.

What is a systematic review?

A summary of studies addressing a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise the relevant research, and to collect and analyse data from the included studies.

SUPPORT – an international collaboration funded by the EU 6th Framework Programme to support the use of policy relevant reviews and trials to inform decisions about maternal and child health in low- and middle-income countries.

www.support-collaboration.org

Glossary of terms used in this report:
www.supportsummaries.org/glossary

Background references on this topic:
See back page

Background

Maternity care is an area of health care in which the importance of good communication has received particular attention. Observational studies have suggested that improved communication between health professionals and women attending maternity services, could potentially result in improved satisfaction for women and better health outcomes.

This is a summary of a systematic review published by Rowe et al in 2002 on interventions to improve communication between health professionals and women in maternity care.

How this summary was prepared

After searching widely for systematic reviews that can help inform decisions about health systems, we have selected ones that provide information that is relevant to low- and middle-income countries. The methods used to assess the quality of the review and to make judgements about its relevance are described here:

www.supportsummaries.org/methods

Knowing what's not known is important

A good quality review might not find any studies from low- and middle-income countries or might not find any well-designed studies. Although that is disappointing, it is important to know what is not known as well as what is known.

About the systematic review underlying this summary

Review objective: To assess effectiveness of interventions aimed at improving communication between health professionals and women in maternity care

	What the review authors searched for	What the review authors found
Interventions	Randomised controlled trials (RCTs), and quasi RCTs which aimed to improve communication between health professionals and women in maternity care	11 RCTs (including 1 cluster RCT). Interventions included information about antenatal testing (5), women held maternity records (3), computer based history taking (2), provision of leaflets and training of staff in their use (1)
Participants	Health professionals and pregnant women	Health professionals and pregnant women
Settings	Maternity services	Maternity services in the UK (10) and Australia (1)
Outcomes	Primary: Women's clinical and psychological health outcomes Secondary: compliance with advice or treatment, knowledge or understanding of advice or treatment, satisfaction with care	Clinical: Uptake of tests(4), appointment duration(1), clinical actions(1), clinical outcomes(1), changes in health-related behaviours(1). Psychological: Maternal anxiety(5), women's satisfaction(6), depression(1), feelings about pregnancy(2), exercising informed choice(1). Other: communication(6), understanding/knowledge of intervention(5), acceptability(2), information needs met(1), amount of information given(1).

Date of most recent search: April 2000

Limitations: This systematic review has major limitations as it was not possible to combine the data from the various studies.

Rowe RE, Garcia J, Macfarlane AJ, Davidson LL. Improving communication between health professionals and women in maternity care: a structured review. *Health Expectations* 2002;5:63-83.

Summary of findings

The systematic review included 11 RCTs which described a range of different interventions to improve communication between health professionals and women in maternity services. Most interventions focused on providing information for women in maternity care, and only one focused on health professionals.

1) Antenatal Testing Information

Four studies provided pregnant women with information about antenatal tests, and assessed outcomes related to the women. The fifth study targeted health professionals, and assessed their knowledge and communication of antenatal screening. Overall, the studies show that:

- Providing pregnant women with antenatal testing information probably increases uptake of antenatal tests.
- Providing women with antenatal testing information probably reduces anxiety levels during pregnancy.
- It is not known whether providing women with antenatal testing information improves their knowledge, understanding, or satisfaction.

About quality of evidence (GRADE)

⊕⊕⊕⊕

High: It is very likely that the effect will be close to what was found in the research.

⊕⊕⊕○

Moderate: It is likely that the effect will be close to what was found in the research, but there is a possibility that it will be substantially different.

⊕⊕○○

Low: It is likely that the effect will be substantially different from what was found in the research, but the research provides an indication of what might be expected.

⊕○○○

Very low: The anticipated effect is very uncertain and the research does not provide a reliable indication of what might be expected.

For more information, see last page.

Antenatal Testing Information			
Patients or population: Pregnant women Settings: Maternity services in high income countries Intervention: Antenatal Testing Information provided to pregnant women Comparison: Routine information			
Outcomes	Impact	Number of participants (studies)	Quality of the evidence (GRADE)
Uptake of Tests	Three studies showed a positive impact on uptake of tests (HIV, anomaly testing, and Down's syndrome screening); one study did not show any difference, and one found a decrease in testing (cystic fibrosis testing)	7126 (4 studies)	⊕⊕⊕○ Moderate
Anxiety levels	Two studies found a reduction in anxiety levels, two found no additional effect.	7126 (4 studies)	⊕⊕○○ Low
Knowledge/ understanding	One study found that the intervention improved women's understanding; two studies showed no additional benefit to women's knowledge and/or understanding; the HIV testing information intervention improved specific knowledge such as vertical transmission, but not general HIV knowledge.	7126 (4 studies)	⊕○○○ Very low
Women's satisfaction	Three studies found that women's satisfaction was not affected by the intervention, and one found that women who received information were more satisfied.	7126 (4 studies)	⊕⊕○○ Low
p: p-value GRADE: GRADE Working Group grades of evidence (see above and last page)			

2) Computer assisted history taking

Two studies assessed the effectiveness of computer based questionnaires to assist midwives in taking the booking history, compared to a standard manual history taking checklist. Results show that:

- **Computer assisted history taking may result in more time being spent on booking interviews, and in midwives asking more questions and giving less advice and feedback;**
- **It is not known whether computer assisted history taking leads to any difference in women's understanding of the information and advice given by care providers;**
- **Computer assisted history taking probably generates more clinical actions by care providers.**

Computer assisted history taking			
Patients or population: Pregnant women Settings: Maternity services in high income countries Intervention: Computer assisted history taking Comparison: Routine information			
Outcomes	Impact	Number of participants (studies)	Quality of the evidence (GRADE)
Process measures	More time spent on booking interview ($p < 0.001$); midwives asked more questions ($p < 0.01$) and gave less advice and feedback ($p < 0.01$).	95 (1 study)	⊕⊕○○ Low
Patient outcomes	No significant difference in women's understanding of information or advice	95 (1 study)	⊕⊕○○ Low
Other outcomes	Structured methods of taking history generated more clinical actions ($p < 0.05$)	2373 (1 study)	⊕⊕⊕○ Moderate
p: p-value GRADE: GRADE Working Group grades of evidence (see above and last page)			

3) Provision of informed choice leaflets and staff training

In one study pregnant women were provided with informed choice leaflets which summarised research evidence on topics about which decisions are made in maternity care. In addition, staff received training on the use of the leaflets in practice. The results of this study indicate that the intervention:

- **May not improve the exercise of informed choice by women, women's anxiety or depression, their level of knowledge, or their satisfaction.**

4) Woman-held Maternity Records

The three trials which provided women with their full maternity records found that the intervention:

- Probably improves communication between women and health professionals, and women's decisions about labour companions;
- Probably reduces women's anxiety, and makes them feel more in control of their pregnancy;
- Probably leads to little or no difference in health outcomes, with the exception of assisted deliveries.

Woman-held full Maternity Records			
Patients or population: Pregnant women Settings: Maternity services in high income countries Intervention: Woman-held full maternity records Comparison: Women held standard co-operation card			
Outcomes	Impact	Number of participants (studies)	Quality of the evidence (GRADE)
Process Outcomes	Women found it easier to talk to health professionals antenatally (RR 1.73, CI 1.16 – 2.59) (1 study), that professionals had explained everything in the records (1 study), and were able to have a companion of choice during labour (1 study). The intervention did not improve women's understanding of what was happening nor their feeling that the record helped communication (1 study)	713 (3 studies)	⊕⊕⊕○ Moderate
Health Outcomes	The intervention did not impact on most clinical outcomes, with the exception of more assisted deliveries occurring (29% vs. 16%, $p < 0.05$)	563 (2 studies)	⊕⊕⊕○ Moderate
Other patient outcomes	Women reported feeling less anxious (1 study), more informed during labour and pregnancy (1 study), and more in control of their pregnancy (2 studies). Overall women's satisfaction did not change (2 studies), and there were no differences in health related behaviours (2 studies).	713 (3 studies)	⊕⊕⊕○ Moderate
p: p-value GRADE: GRADE Working Group grades of evidence (see above and last page)			

Relevance of the review for low- and middle-income countries

→ Findings	▷ Interpretation*
APPLICABILITY	
→ The studies were conducted in high income countries.	▷ Most of the interventions depend on high literacy rates among women, education about pregnancy, accessibility to health care, and to some extent to access to computer technology in the health services. These interventions may be transferrable to middle-income settings with high literacy rates and access to technology, but may not be transferable to many low-income settings.
EQUITY	
→ The review did not provide data regarding differential effects of the interventions for disadvantaged populations.	▷ Increased involvement by women can potentially improve equity by better equipping women to make informed decisions about accessing testing and care. However, this depends on the relevant tests and care being available in the health system and other barriers not existing. In low- and middle-income countries such barriers may include costs of health care, distance, and societal attitudes towards women's involvement in decision making about their health care.
ECONOMIC CONSIDERATIONS	
→ The review did not provide information on economic evaluations.	▷ Good communication requires additional staff time as well as other resources e.g. production of leaflets, access to computers, copies of maternity records. The costs and benefits should therefore be assessed in future studies, as well as in implementation settings in LMIC.
MONITORING & EVALUATION	
→ The number of studies included was small, and provided information about very few aspects of care.	▷ The evidence of effectiveness is not strong, and any implementation should be accompanied by a monitoring and evaluation programme to continually assess whether the processes are adequate and the desired outcomes achieved.

*Judgements made by the authors of this summary, not necessarily those of the review authors, based on the findings of the review and consultation with researchers and policymakers in low- and middle-income countries. For additional details about how these judgements were made see: www.supportsummaries.org/methods

Additional information

Related literature

Brown HC, Smith HJ. Giving women their own case notes to carry during pregnancy. *Cochrane Database of Systematic Reviews* 2004. Issue 2, Art.No:CD002856. DOI: 10.1002/14651858.CD002856.pub2.

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Conflict of interest

None known. For details, see: www.supportsummaries.org/coi

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This review should be cited as

Rowe RE, Garcia J, Macfarlane AJ, Davidson LL. Improving communication between health professionals and women in maternity care: a structured review. *Health Expectations* 2002;5:63–83.

The summary should be cited as

Dudley LD, Wiysonge CS. Do interventions to improve communication between health professionals and women improve maternity care? A SUPPORT Summary of a systematic review. September 2009. www.supportsummaries.org

Keywords

evidence-informed health policy, evidence-based, systematic review, health systems research, health care, low and middle-income countries, developing countries, primary health care.

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About quality of evidence (GRADE)

The quality of the evidence is a judgement about the extent to which we can be confident that the estimates of effect are correct. These judgements are made using the GRADE system, and are provided for each outcome. The judgements are based on the type of study design (randomised trials versus observational studies), five factors that can lower confidence in an estimate of effect (risk of bias, inconsistency of the results across studies, indirectness, imprecision of the overall estimate across studies, and publication bias), and three factors that can increase confidence (a large effect, a dose response relationship, and plausible confounding that would increase confidence in an estimate). For each outcome, the quality of the evidence is rated as high, moderate, low or very low using the definitions on page 3.

For more information about GRADE: www.supportsummaries.org/grade

SUPPORT collaborators:

The **Cochrane Effective Practice and Organisation of Care Group (EPoC)** is a Collaborative Review Group of the Cochrane Collaboration: an international organisation that aims to help people make well informed decisions about health care by preparing, maintaining and ensuring the accessibility of systematic reviews of the effects of health care interventions. www.epocoslo.cochrane.org

The **Evidence-Informed Policy Network (EVIPNet)** is an initiative to promote the use of health research in policymaking. Focusing on low- and middle-income countries, EVIPNet promotes partnerships at the country level between policy-makers, researchers and civil society in order to facilitate both policy development and policy implementation through the use of the best scientific evidence available. www.evipnet.org

The **Alliance for Health Policy and Systems Research (HPSR)** is an international collaboration aiming to promote the generation and use of health policy and systems research as a means to improve the health systems of developing countries. www.who.int/alliance-hpsr

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