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How effective are strategies to improve the way health and social care professional groups work together?

Can exercise, for women with gestational diabetes, improve outcomes for mother and her baby?

Continuous support for women during childbirth

How effective are strategies to improve the way health and social care professional groups work together?

Authors: Reeves S, Pelone F, Harrison R, Goldman J, Zwarenstein M

What is the aim of this review?

The aim of this Cochrane Review was to find out whether strategies to improve interprofessional collaboration (the process by which different health and social care professional groups work together), can positively impact the delivery of care to patients. Cochrane researchers collected and analysed all relevant studies to answer this question, and found nine studies with 5540 participants.

Key messages

Strategies to improve interprofessional collaboration between health and social care professionals may slightly improve patient functional status, professionals' adherence to recommended practices, and the use of healthcare resources. Due to the lack of clear evidence, we are uncertain whether the strategies improved patient-assessed quality of care, continuity of care, or collaborative working.

What was studied in this review?

The extent to which different health and social care professionals work well together affects the quality of the care that they provide. If there are problems in how these professionals communicate and interact with each other, this can lead to problems in patient care. Interprofessional collaboration practice-based interventions are strategies that are put into place in healthcare settings to improve interactions and work processes

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between two or more types of healthcare professionals. This review studied different interprofessional collaboration interventions, compared to usual care or an alternative intervention, to see if they improved patient care or collaboration.

What are the main results of the review?

The review authors found nine relevant studies across primary, secondary, tertiary and community care settings. All studies were conducted in high-income countries (Australia, Belgium, Sweden, UK and USA) and lasted for up to 12 months. Most of the studies were well conducted, although some studies reported that many participants dropped out. The studies evaluated different methods of interprofessional collaboration, namely externally facilitated interprofessional activities (e.g. collaborative planning/reflection activities led by an individual who is not part of the group/team), interprofessional rounds, interprofessional meetings, and interprofessional checklists.

Externally facilitated interprofessional activities may slightly improve patient functional status and health care professionals' adherence to recommended practices, and may slightly improve use of healthcare resources. We are uncertain whether externally facilitated interprofessional activities improve patient-assessed quality of care, continuity of care, or collaborative working behaviours. The use of interprofessional rounds and interprofessional checklists may slightly improve the use of healthcare resources. Interprofessional meetings may slightly improve adherence to recommended practices, and may slightly improve use of healthcare resources.

Further research is needed, including studies testing the interventions at scale to develop a better understanding of the range of possible interventions and their effectiveness, how they affect interprofessional collaboration and lead to changes in care and patient health outcomes, and in what circumstances such interventions may be most useful.

How up to date is this review?

The review authors searched for studies that had been published to November 2015.

Can exercise, for women with gestational diabetes, improve outcomes for mother and her baby?

Authors: Brown J, Ceysens G, Boulvain M

What is the issue?

A previous Cochrane review on *Exercise for diabetic pregnant women* included women with pre-existing diabetes and women with gestational diabetes. That review has now been split into two new reviews on: exercise for pregnant women with gestational diabetes (this review) and exercise for pregnant women with pre-existing diabetes (the subject of another new review).

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There will be similarities in the background, methods and outcomes between these two systematic reviews. Gestational diabetes mellitus (GDM), or diabetes during pregnancy, has both short- and long-term complications for the mother and her baby. Women with GDM are at an increased chance of developing high blood pressure or pre-eclampsia during pregnancy, having their labour induced, giving birth by caesarean section, and experiencing perineal trauma. In the long term, up to half of women with GDM are likely to develop type 2 diabetes. Their babies are at increased risk of being born large-for-gestational age, experiencing a birth injury and being admitted to the neonatal intensive care unit. They are also more likely to develop metabolic syndrome in childhood and later life.

Why is this important?

Exercise may help to control blood sugar levels and improve outcomes for the mother and her baby, possibly leading to long-term health benefits. Physical activity for this review is planned, structured and repetitive body movements undertaken to improve physical fitness.

What evidence did we find?

We searched for evidence from randomised controlled trials in August 2016. We identified 11 trials that involved 638 pregnant women. They were conducted in middle-or high-income countries. We judged the overall risk of bias in the trials as unclear because of a lack of information about how the trials were conducted. Using GRADE, the quality of the evidence from the trials ranged from high to low quality. The main reasons for downgrading the quality were for risk of bias in the trials and imprecise effect sizes, low event rates and small numbers of participants.

For the mothers, exercising did not appear to reduce the risk of pre-eclampsia as the measure of hypertensive disorders of pregnancy (two trials, 48 women, *low-quality evidence*), birth by caesarean section (five trials, 316 women, *moderate-quality evidence*), or the risk of induction of labour (one trial, 40 women, *low-quality evidence*). The mothers had similar body mass index at follow-up in the exercise and control groups (three trials, 254 women, *high-quality evidence*). Exercising was associated with lower fasting blood glucose levels (four trials) and blood glucose levels after a meal (three trials) but with variations in effect sizes between the different trials. The exercise programmes varied between trials as did their duration and whether or not they were supervised. None of the included trials reported on perineal trauma, postnatal depression or development of type 2 diabetes.

For the babies, no deaths occurred around the time of birth in (one trial, 19 babies, *low-quality evidence*) and there was no evidence of any difference in the risk of ill-health (two trials, 169 babies, *moderate-quality evidence*) or low blood sugar levels (one trial, 34 babies, *low-quality evidence*). None of the trials reported on

the number of large-for-gestational-age babies or babies that went on to develop diabetes in childhood or adulthood or neurosensory disability that became apparent during childhood.

What does this mean?

Although exercise appeared to be able to lower fasting blood sugar levels and sugar levels after a meal, we did not find any differences in other outcomes for pregnant women with GDM. The present evidence is insufficient to advise for or against women enrolling in exercise programmes. Even if exercise does not provide any benefit during pregnancy, this change in lifestyle may persist after birth and may help prevent the onset of type 2 diabetes and its long-term complications. Pregnant women with GDM who wish to enrol in an exercise programme may wish to discuss their choice with a health professional. Further research is needed comparing one exercise intervention with another (or with a control) and reporting on both the short- and long-term outcomes (for both the mother and infant/child/adult) as listed in this review.

Continuous support for women during childbirth

Authors: Bohren MA, Hofmeyr G, Sakala C, Fukuzawa RK, Cuthbert A

What is the issue?

In the past, women have been cared for and supported by other women during labour and birth, and have had someone with them throughout, which we call 'continuous support'. However, in many countries more women are giving birth in hospital rather than at home. This has meant continuous support during labour has become the exception rather than the norm. The aim of this Cochrane Review was to understand the effect of continuous support on a woman during labour and childbirth, and on her baby. We collected and analysed all relevant studies to answer this question (search date: October 2016).

Why is this important?

Research shows that women value and benefit from the presence of a support person during labour and childbirth. This support may include emotional support (continuous presence, reassurance and praise) and information about labour progress. It may also include advice about coping techniques, comfort measures (comforting touch, massage, warm baths/showers, encouraging mobility, promoting adequate fluid intake and output) and speaking up when needed on behalf of the woman. Lack of continuous support during childbirth has led to concerns that the experience of labour and birth may have become dehumanised.

Modern obstetric care frequently means women are required to experience institutional routines. These may have adverse effects on the quality, outcomes and experience of care during labour and childbirth. Supportive care during labour may enhance physiological labour processes, as well as women's feelings of control and confidence in their own strength and ability to give birth. This may reduce the need for obstetric intervention and also improve women's experiences.

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What evidence did we find?

We found 26 studies that provided data from 17 countries, involving more than 15,000 women in a wide range of settings and circumstances. The continuous support was provided either by hospital staff (such as nurses or midwives), or women who were not hospital employees and had no personal relationship to the labouring woman (such as doulas or women who were provided with a modest amount of guidance on providing support). In other cases, the support came from companions of the woman's choice from her own network (such as her partner, mother, or friend).

Women who received continuous labour support may be more likely to give birth 'spontaneously', i.e. give birth vaginally with neither ventouse nor forceps nor caesarean. In addition, women may be less likely to use pain medications or to have a caesarean birth, and may be more likely to be satisfied and have shorter labours. Postpartum depression could be lower in women who were supported in labour, but we cannot be sure of this due to the studies being difficult to compare (they were in different settings, with different people giving support). The babies of women who received continuous support may be less likely to have low five-minute Apgar scores (the score used when babies' health and well-being are assessed at birth and shortly afterwards). We did not find any difference in the numbers of babies admitted to special care, and there was no difference found in whether the babies were breastfed at age eight weeks. No adverse effects of support were identified. Overall, the quality of the evidence was all low due to limitations in study design and differences between studies.

What does this mean?

Continuous support in labour may improve a number of outcomes for both mother and baby, and no adverse outcomes have been identified. Continuous support from a person who is present solely to provide support, is not a member of the woman's own network, is experienced in providing labour support, and has at least a modest amount of training (such as a doula), appears beneficial. In comparison with having no companion during labour, support from a chosen family member or friend appears to increase women's satisfaction with their experience. Future research should explore how continuous support can be best provided in different contexts.

If you have any questions or comments with regard to the above document please feel free to contact me.

Kind regards

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