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Facilitators and barriers to external cephalic version for breech presentation at term among health care providers in the Netherlands: A quantitative analysis

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ABSTRACT

Objective: guidelines recommend that external cephalic version (ECV) should be offered to all women with a fetus in breech presentation at term. However, only 50–60% of the women receive an ECV attempt. We explored the determinants (barriers and facilitators) affecting the uptake of the guidelines among gynaecologists and midwives in the Netherlands.
Design: national online survey.
Setting: the Netherlands.
Participants: gynaecologists and midwives.
Measurements: in the online survey, we identified the determinants that positively or negatively influenced the professionals' adherence to three key recommendations in the guidelines: (a) counselling, (b) advising for ECV, (c) arranging an ECV. Determinants were identified in a previously performed qualitative study and were categorised into five underlying constructs; attitude towards ECV, professional obligation, outcome expectations, self-efficacy and preconditions for successful ECV. We performed a multivariate analysis to assess the importance of the different constructs for adherence to the guideline.
Findings: 364 professionals responded to the survey. Adherence varied: 84% counselled, 73% advised, and 82% arranged an ECV for (almost) all their clients. Although 90% of respondents considered ECV to be an effective treatment for preventing caesarean childbirths, only 30% agreed that 'every client should undergo ECV'. Self-efficacy (perceived skills) was the most important determinant influencing adherence.
Key conclusions: self-efficacy appears to be the most significant determinant for counselling, advising and arranging an ECV.
Implications for practice: to improve adherence to the guidelines on ECV we must improve self-efficacy.

Introduction

Clinical problem

Breech presentation occurs in 3–4% of term pregnancies, corresponding to 7450 women annually in the Netherlands. The Term Breech Trial, which compared planned vaginal childbirth to planned

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caesarean childbirth, showed a significant reduction in poor neonatal outcome and mortality (Hannah et al., 2000). The results of this study had a major impact on the management of the term breech childbirth. The overall caesarean childbirth rate for breech presentation in the Netherlands increased from 50% to 80% (Rietberg et al., 2005). This change was accompanied by a substantial decrease in perinatal mortality of breech pregnancies from 0.38% to 0.18% (OR 0.53; 95%CI 0.33–0.83) and neonatal trauma (OR 0.26; 95%CI 0.14–0.50) (Rietberg et al., 2005).

The increased number of caesarean sections (CS) has disadvantages as well: caesarean childbirths are associated with increased maternal morbidity, longer hospital admission and consequences for future pregnancies (increased risk of abnormal placental implantation, uterine rupture and, as an ultimate consequence of these complications, fetal death). External cephalic version (ECV) is a safe obstetrical intervention that has been proven to reduce the number of breech presentations at birth and therefore reduction of the number of caesarean childbirths (Hofmeyr and Kulier, 2000). ECV is worldwide recommended in obstetrical guidelines as the first treatment of choice in case of breech presentation at term, with reported success rates of 40–50% (Hofmeyr, 2002).

The Royal Dutch Organisation for Midwives (KNOV) and the Dutch Society for Obstetrics and Gynaecology (NVOG) published evidence-based guidelines on the management of women with a fetus in breech position (Verburgt and Offerhaus, 2007; Nederlandse vereniging voor obstetrie en gynaecologie, 2008). According to these guidelines ECV should be advised to all eligible women with a fetus in breech position at 36 weeks and onwards. The three key recommendations in the guidelines are: (1) to counsel all women with a fetus in breech presentation. This means supplying information and taking the woman's and her partners perspective into account so they are able to make an informed choice; (2) advising an ECV and (3) arranging an ECV; either by performing ECV or referring to a colleague who is experienced in performing ECV.

Irrespective of these guidelines, not all women are offered an ECV. An inventory survey among all hospitals in the Netherlands in 2007 reported that 5% of the gynaecologic practices did not perform nor referred for ECV at all, even though women with breech presentations were referred to these hospitals as well (Feitsma et al., 2007). A prospective cohort study in the Netherlands reported that 26% of women with a fetus in breech presentation did not undergo ECV; in 48% of these cases, the obstetrician decided not to perform ECV, 37% of women declined a version attempt, and 15% gave birth before the version was performed (Rijnders et al., 2010). This means that a substantial proportion of clients are not receiving the intended care in a way that they benefit from the guidelines. As a result, these women will have a breech presentation at birth and most of them will have a caesarean childbirth with all its consequences. As there is sound evidence supporting an ECV in case of breech presentation, it is clear that the problem relates to implementation.

Framework of implementation research

One of the main problems with the introduction of guidelines in the health care system is that professionals do not 'automatically' use the guidelines as intended by the developers (Grol et al., 2005; Guldbrandsson, 2008). A detailed understanding of the factors, or so-called determinants, that facilitate or impede the innovation process is a prerequisite for designing an innovation strategy that is adapted to the several critical determinants, in order to achieve real change (Fleuren et al., 2004; Greenhalgh et al., 2004). The framework used in the present study represents the main stages in innovation processes and related categories of determinants. Each of the four main stages in innovation processes (dissemination, adoption, implementation, and continuation) can be seen as points at which, potentially, the desired change may not occur. The transition from one stage to the next can be affected by various determinants. This framework is more extensively discussed elsewhere (Fleuren et al., 2004).

To identify potential determinants for (non)adherence to the guidelines on breech presentation, focus group interviews were conducted with midwives and gynaecologists (Rosman et al., 2013) This resulted in a list of 41 potential determinants, that was further reduced to a shortlist of key determinants, as recognised by implementation experts (Fleuren et al., 2004).

The aim of this study was to quantify the determinants (facilitators as well as barriers) midwives and gynaecologists perceive in adhering to the three key recommendations in the Dutch ECV guidelines: (a) counselling all eligible women for ECV, (b) advising positively and (c) arranging an ECV.

Methods

Setting

In the Netherlands, obstetric care is organised in regions. A region contains a hospital and several surrounding midwifery practices who initially refer to this hospital. In total, there are 97 hospitals and thus regions, and 503 midwife practices in the Netherlands.

Study design

The study was designed as a survey among gynaecologists and midwives. As both professions are organised differently, we had a different approach for each. All 1217 gynaecologists and residents were sent an invitation by e-mail to participate in the online questionnaire. It was not possible to limit the invitations to obstetrical oriented gynaecologists. However, the majority of gynaecologists in the Netherlands are actively involved in obstetrics. There is no mass e-mail listing for midwives, thus a random sample of addresses of 300 midwifery practices were sent an invitation to participate in the online questionnaire. To avoid missing data in the online questionnaire, the questionnaire could not be finished when there were missing answers. If participants wished to explain their answers in detail, they could do so at the end of the questionnaire.

The general outline of the questionnaire was derived from the qualitative determinant analyses (Rosman et al., 2013). Table 2 shows the variables that were measured. First, the potentially relevant determinants of adherence to the three key recommendations were measured: attitude towards EVC (10 items); professional obligation (eight items); outcome expectations (four items); self-efficacy (four items) and preconditions for successful ECV (15 items). Professional obligation refers to the degree to which the guideline recommendations fit in with the tasks for which the user feels responsible when doing his/her work (Fleuren et al., 2013). Self-efficacy refers to the perceived competence of users with respect to intended behaviour (De Vries et al., 2006; Bartholomew et al., 2006). Outcome expectations refer to the user's perceived probability of achieving the client objectives as intended by the guidelines (Fleuren et al., 2013). For all items, 5-point Likert scales were used, ranging from 'totally agree' to 'totally disagree', except for self-efficacy (4-point scale, ranging from 'feeling totally able to perform' to 'feeling totally unable to perform'). The self-reported level of adherence was measured at the level of the three key recommendations in the guidelines (adherence to counsel, advising, and arranging ECV). The respondents were asked to indicate, for each key recommendation, for how many patients they had implemented the activity (7-point