

# BMJ Open Quality Time-out in prolonged labour: development of a care model to prevent secondary fear of childbirth

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## ABSTRACT

**Background** During qualitative improvement work, the statistics at the hospital reveal prolonged labour as one of the major causes of secondary fear of childbirth (FOC). The aim of this improvement work was to develop and implement a care process for prolonged labour to prevent secondary FOC.

**Materials and methods** To explore the factors behind secondary FOC among multiparous women, a follow-up of referral reasons for 600 women with severe FOC was made between 2015 and 2017 at a Swedish University Hospital. In the group with the most common factor, namely prolonged labour, 41 women were interviewed. From their answers, further research and existing professional knowledge, a care process to prevent secondary FOC was designed, 'Time-out in prolonged labour' (the Time-out). To improve the quality of the care process, the functional resonance analysis method was used. The findings from the interviews were categorised into three themes: lack of involvement; lack of communication and information; and lack of care plan. The women explained that if these areas had been fulfilled, it may have reduced their FOC.

**Result** To prevent the above-mentioned themes, 'Time-out in prolonged labour' was developed with supporting factors such as gathering the interprofessional team, collecting information, dialogue within the team and the involvement of the women when deciding the care plan. Result after implementation shows a reduction of referral reason due to prolonged labour for women with severe FOC from 28% in 2016 to 8.5% in 2020.

**Conclusions** The Time-out is a good model to prevent secondary FOC. Central aspects of the model are to ensure women's involvement, good communication and a documented care plan for women in prolonged labour. The supporting factor of interprofessional teamwork is of importance when using the Time-out in practice.

## INTRODUCTION

The goal for maternity care worldwide is a safe outcome and positive birth experience for women,<sup>1</sup> which is also relevant to the quality improvement project presented here. The background statistics at the participating hospital revealed prolonged labour as one of the major causes of secondary fear of childbirth (FOC) in women. Secondary FOC occurs in multiparous women with a previous traumatic birth<sup>2</sup> and/or previous

## WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ The strongest predictor for fear of childbirth (FOC) in parous women is a negative previous birth experience or operative birth. A common birth complication related to a negative birth experience is prolonged labour, so it is important to find caring factors to prevent secondary FOC when that situation occurs.

## WHAT THIS STUDY ADDS

⇒ This quality improvement work provides a care model, 'Time-out in prolonged labour' to prevent secondary FOC. We also found that well-functioning teamwork is of great importance and listening to each other with respect for each other's competence is crucial. In a well-performed Time-out, where the woman shares her preferences and information about her capacity, all perspectives of the situation are on the table. This enables well-founded decisions.

⇒ Time-out in prolonged labour: development of a care model to prevent secondary FOC.

## HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ This work can be used to improve care in labour when prolonged labour occurs. It can also be studied in different contexts.

negative birth experience.<sup>3</sup> FOC prolongs the latent phase, so the time to the active phase of labour extends and increases the risk of caesarean section.<sup>2</sup> A systematic review shows that the strongest predictor for FOC in parous women is a negative previous birth experience or operative birth. One aspect related to a negative birth experience is prolonged labour.<sup>4</sup> Fearful labour experience may contribute to the risk of developing postpartum depression and may negatively impact the upcoming childbirth.<sup>5</sup> Therefore, there was a need for a specific care process to prevent secondary FOC associated with prolonged labour. This process work is part of the participating hospital's strategy for quality improvement in healthcare.<sup>6</sup>

There are different methods to discover and treat FOC worldwide and comparisons between countries are therefore problematic. The most validated tool is Wijma delivery expectancy/experience questionnaire (W-DEQ), a questionnaire to discover and evaluate the level of FOC as mild, moderate, severe or phobic fear. Intense FOC is usually described as a fear that influences women's daily life.<sup>7</sup> During the past 25 years in Sweden, women with a severe FOC have been offered counselling at specialised clinics staffed by midwives.<sup>8</sup> The midwives' counselling of women with an intense FOC is described as 'striving to create a safe place for exploring the FOC'.<sup>8</sup> The quality improvement presented here was based on statistics and interviews from such a clinic at the participating hospital.

Prolonged labour or dystocia is a common birth complication. The prevalence of prolonged labour, according to a Swedish study, is 35.6% for primiparous women and 10.2% for multiparous women.<sup>9</sup> One explanation is that anxiety and stress increase the level of epinephrine, leading to impaired uterine activity which, in turn, prolongs the labour.<sup>10</sup> Women with prolonged labour score significantly lower in the category's own capacity and perceived safety in a Norwegian study.<sup>11</sup> Prolonged labour and operative deliveries including caesarean sections and other interventions can be reduced, and the birth experiences could be improved, if women receive continuous support during the birth.<sup>12</sup>

The goal of the labour department presented here is to provide continuous support during labour from health professionals, midwives and assistant nurses. It is consistent with findings from a systematic review about FOC that demonstrate the importance of creating woman-centred birthing environments, where women can feel free and secure during birth.<sup>4 13</sup>

However, prolonged labour will always occur to a varying extent and it's important to have a good work process for when it does. At hospitals in Sweden, midwives are responsible for healthy women with normal labour and birth. When a complication occurs it's the obstetricians who are responsible for the patient, but the midwives are still involved in the care as part of a team with the obstetricians.

Involvement in the care and decision-making can be hampered for women with prolonged labour. Studies show that women in prolonged labour agree that their ideals might no longer be feasible and that their choices are restricted. However, open and respectful communication between women and care professionals is essential when making decisions.<sup>14 15</sup> Therefore, support and the involvement of the woman in care is of importance for reducing the risk of prolonged labour and FOC.

## Aim

The aim of this work was to develop and implement a care model, for prolonged labour to prevent secondary FOC.

## Design and settings

This quality improvement work<sup>6</sup> was performed in two steps. The first phase, data collection, took place in the obstetric department at a University Hospital in Sweden between 2015 and 2017. First, a care model for prolonged labour was developed at the participating hospital based on professional knowledge and research. Then, the Time-out was tested in practice by using functional resonance analysis method (FRAM).<sup>16</sup> To develop quality in healthcare and get a deeper understanding of its patient processes, the FRAM can be useful.<sup>16</sup> Furthermore, it can be used in analysing the performance of different work moments (functions) and how they are interrelated and dependent on each other. Still, implementing new work processes in healthcare is difficult because of the need for behavioural change to improve compliance. In a complex setting such as healthcare, 'work as done' in close patient care will often differ from 'work as imagined'. The FRAM method can be used to analyse the variability of situations and functions and how that might affect the implementation of a new care process.<sup>16</sup>

## Follow-Up referrals

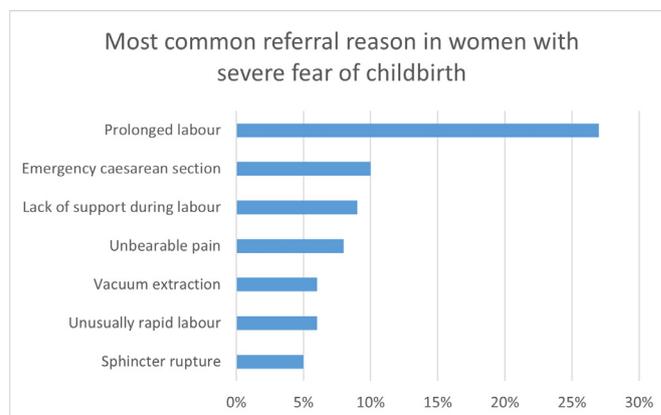
To explore the factors behind a secondary FOC among multiparous women, a follow-up of referral reasons to the clinic for women with severe FOC was made (n=600). The referrals were sorted based on the reason and the numbers in each group. The largest group, 28%, had a history of prolonged labour, see figure 1.

## Interviews

Overall, 41 women from the largest referral reason group were interviewed when they attended the hospital for therapeutic consultation. During the structured interview, two questions were asked:

1. What do you think is the main reason for your fear of the coming childbirth?
2. What could we have done at the hospital, during your first childbirth, to prevent the fear you feel now?

The answers from the interviews were categorised into three themes: lack of involvement; lack of communication and information; and lack of care plan. The women



**Figure 1** Referral reasons for severe fear of childbirth.

explained that if these areas had been addressed, it may have reduced their FOC.

Some examples of citations from the women about involvement were:

‘I had wanted to be involved in decisions’, ‘I know my own body’, ‘I wish you had asked and told me more’ and ‘I became someone whom one decided upon, over my head’.

Communication and information issues were described as:

‘I wanted open communication’, ‘I would like a more affirmative and supportive attitude’, ‘Please rely on what the patient says’ and ‘A more reassuring information about what’s going on’.

Issues surrounding a lack of care plan were described as:

‘I wanted to get an explanation and a time limit’ and ‘I lacked a time limit, thought it would never end’.

Design of the care process for prolonged labour. An interprofessional group developed the care process based on the interviews and designed it in a structured way. To address the themes: lack of involvement; lack of communication and information; and lack of care plan, the model was designed to identify supporting factors and prevent the issues that the women had described. This information together with current research<sup>13 4 8 12 14 15</sup> and professional knowledge from midwives and obstetricians formed the basis for the model.

### Testing the care process at the labour department

The care process was practically tested in the labour department of a Swedish University Hospital in 2016.

### Evaluate with patients

Three women, who experienced the Time-out, were interviewed early in the implementation phase to contribute to its improvement.

### Further development and implementation

The FRAM was used to follow-up on the implementation and to find success factors for further improvement of the Time-out in 2017. These success factors were used in the training of staff and further implementation of the Time-out. FRAM was used to reconcile differences between ‘work-as-imagined’ and ‘work-as-done’. The data required to develop the Time-out was collected through interviews with obstetricians, midwives and assistant nurses and documentation of the procedure. The FRAM identified activities and functions forming the process and how the different activities (aspects) are interconnected in the care process.

## RESULTS

### Care model

A care model was developed, ‘Time-out in prolonged labour’, to ensure that caring factors that may be protective against secondary FOC are used, see [table 1](#). When prolonged labour occurs, the midwife initiates the Time-out and gathers the interprofessional team to explore the whole picture of the situation; then, the woman shares her preferences and information about her capacity. The team members communicate with the birthing woman and involve her with the different options. The participants in the team listen to each other and use the team’s accumulated knowledge. The shared care plan, with understandable time limits for the woman, is documented in the patient chart.

During interviews with three women who experienced the Time-out model, three success factors emerged: decided time plan, good communication and being listened to.

### Implementation

To improve the quality and reduce the undesirable variation in the performance of the model, an analysis was

**Table 1** Model of Time-out, steps 1-4 in prolonged labour

1	Gather the team—teamwork when prolonged labour occurs. The midwife is responsible for calling the team but the obstetrician or the senior responsible midwife of the ward can initiate Time-out when needed. The assistant nurse stays with the patient
2	Collect information. The midwife reports the situation according to Situation, Background, Assessment and recommendation (SBAR) <sup>26</sup>
	S—Situation, the reason for Time-out
	B—Background, medical history and risk factors
	A—Current situation; fetus presentation, external palpation of the fetus, station, progress, status of contractions, condition of the fetus, cardiotocography, communication and relation with the woman—need for an interpreter, signs of fear or stress/signs of security and a calm atmosphere
	Actions are taken; position changes, emptied bladder, augmentation, woman’s capacity, fatigue, nutrition and pain management
	Dialogue in the team
3	Involve the woman and her partner/relatives. The team gets together with the patient and makes an assessment
	R—Do a plan together
4	The plan is documented with a time plan for follow-up, usually by an obstetrician



raising awareness of their importance had a positive effect on the outcome.

Undoubtedly, the number of referrals, to the clinic for FOC, with a history of prolonged labour has decreased after implementation of the model.

For that reason, the Time-out is suggested to be useful to manage prolonged labour. However, it is important to promote a safe and trustful birth environment and comprehend the birthing woman holistically and identify what might disturb the birth process.<sup>12 13</sup> This may prevent prolonged labour from occurring.

### Limitation

This article describes an improvement work and needs to be studied in a research project.

### Further research

Interprofessional teamwork has not been described in earlier research about prolonged labour and FOC. For this reason, these findings need to be studied.

### CONCLUSION

This quality improvement carried out at a labour ward at a Swedish University Hospital suggests that ‘Time-out in prolonged labour’ is a good model to prevent secondary FOC. Central aspects of the model are to ensure women’s involvement, good communication and a documented care plan for women in labour. The supporting factor of interprofessional teamwork is of importance when using the model in practice. More research is needed for further implementation of the model at labour wards.

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