



Prioritisation of research questions about maternal birth injuries

Summary/Abstract

Aim

Which research questions about maternal birth-related injuries should be given priority, in the opinion of women who have suffered childbirth-related injuries and healthcare personnel working in this field? SBU (The Swedish Agency for Health Technology Assessment and Assessment of Social Services) was commissioned by the government to facilitate prioritisation of questions within this field. Women with birth-related injuries and healthcare personnel were invited to collaborate in prioritising relevant research questions.

The aim of the report is to stimulate relevant research and well-conducted studies into questions which are regarded as of particularly high priority. This can apply both to research in the form of individual new studies, so-called primary research, and in the form of systematic reviews, in which the results of all studies within a specific field are critically appraised and summarized. The main target groups for the report are researchers, the bodies which fund research and authorities and organisations which compile research findings.

Background

Previous assessments by SBU have disclosed a need for further research and also a need for systematic reviews to date, on such questions as diagnosis, prevention and treatment of different types of maternal birth-related injuries associated with vaginal delivery. As it is unlikely that all research questions can be addressed, listing topics in order of priority is important. This listing often reflects the interests of researchers and their financial backers, and less frequently topics which patients, their relatives and clinicians regard as important.



Method

The prioritising is based on a method developed by The James Lind Alliance. Using this approach, patients, obstetric healthcare personnel and relatives propose the questions which, from their perspective, they consider to be important research topics. The method has an inclusive perspective: the participants work together as equals and a result is achieved, based on consensus principles according to the Delphi Method. The method is not intended to develop an absolute truth but is intended to broaden perspective.

This project is based on a previously published priority list, a top 10 list of important research areas in the field of maternal birth injuries (www.sbu.se/291e). During the present project, more detailed research questions within these areas were collected by means of a questionnaire on the SBU website. In all, 939 people contributed at least one suggestion for a research question in one of the ten categories for which research topics were solicited. Most contributions were from women who had suffered injury during childbirth, but relatives, nursing personnel and researchers also answered the questionnaire.

For five areas, the research questions taken from responses to the questionnaire were prioritised (Figure 1): diagnosis of birth-related injuries, prevention

of birth-related injuries, treatment of second-degree perineal tears, treatment of third- or fourth-degree perineal tears (anal sphincter injuries) and treatment of injury to the levator ani muscle. Prioritising was done by five working groups, in five separate workshops. Participants in the working groups were recruited by an open interest notification on the SBU website.

Each working group comprised 14 participants, half of whom were healthcare personnel and the other half were women who had personal experience of childbirth-related injury. The intention was to include as many different perspectives as possible in each group. The prioritisation was conducted in two steps. In the first step each participant individually selected their ten most important research questions, from the list of questions which had been submitted via SBU's questionnaire. The research questions which the participants collectively ranked as having highest priority in this first step (between 20 and 25 questions) were given further consideration at a workshop. In the second step the members of the project met in a workshop in which each working group collectively reasoned their way through to a final top 10 list. SBU's role during the workshops was to organize and facilitate discussions. However, SBU members did not participate actively in the discussions, nor did they attempt to influence which questions the participants prioritised.

Results

The five workshops resulted in five top 10 lists comprising the research questions which the respective working group considered to be most important (Tables 1–5). Some topics were prioritised by more than one working group, for example the effect of information to a patient who suffers childbirth injury and the attitudes of obstetric healthcare personnel to this patient, the effect on obstetric healthcare personnel of their working environment, the effect of further knowledge and training measures for obstetric healthcare personnel and research on women who have suffered genital mutilation. Discussions about how obstetric care can be made equal nationwide also recurred in several workshops. Questions about how to manage sutures which had failed to hold were also prioritised a number of times.

Discussion

In this project, prioritising was based on the James Lind Alliance method. It is constructed on consensus principles, whereby each group, through discussion, arrives at a consensus result. The strength of the method lies in its inclusiveness, whereby patients and healthcare personnel work together as equal participants. A prerequisite for the method is that the knowledge and experience of every participant is acknowledged to be of equal value and application to the project. This method however, requires that all

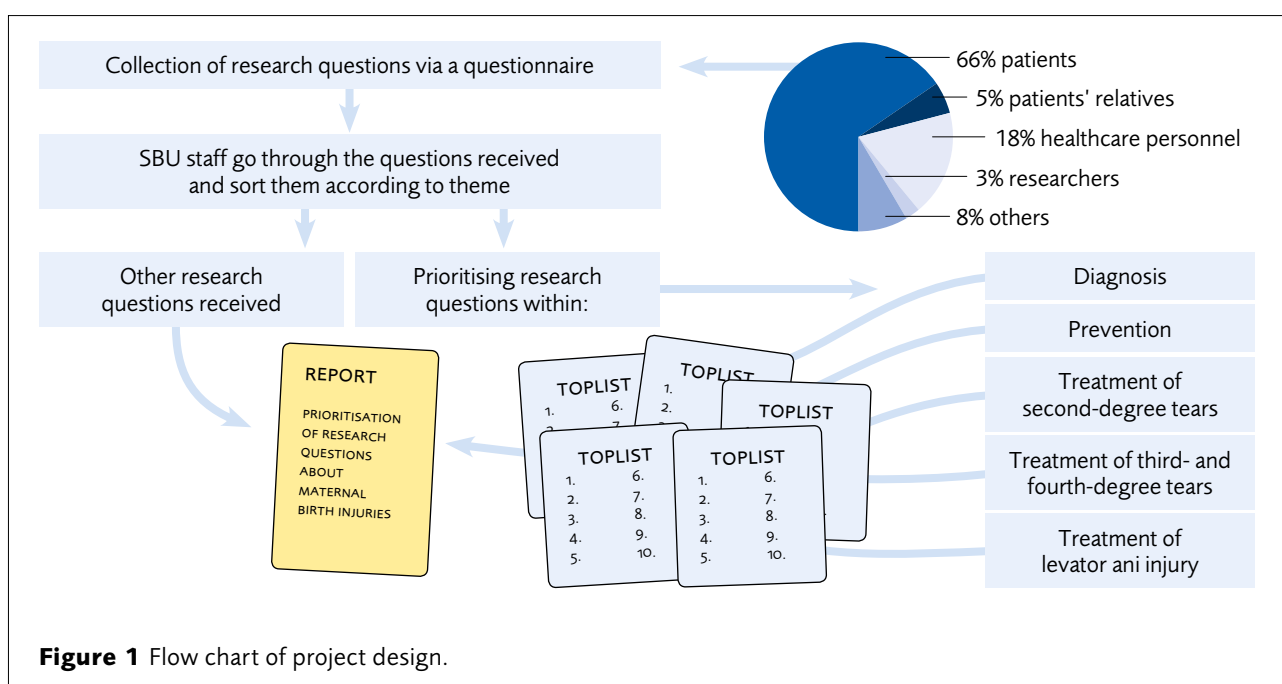


Figure 1 Flow chart of project design.

participants understand that everyone must have a chance to be heard and have a pragmatic approach, facilitated by independent moderators, in this case by SBU.

Recruitment of the working groups to the project was achieved by an open interest submission on the SBU website, an approach which has also been used in certain projects conducted by the James Lind Alliance. SBU then compiled five separate working groups (for the five workshops) with the intention of including as many different relevant perspectives as possible. No working group however, can be considered to be able

to cover all perspectives and it is acknowledged that a different group, comprising other participants, might have produced a different result.

In summary however, the project leaders observed that several very similar topics were proposed by more than one working group in their selection of the ten most important research questions. Discussion and motivation have also shown concordance in reasoning among the various working groups and participants. Overall, the participants in the project reported that they perceived their participation as a positive experience and that they had felt included in the process.

Table 1 Top 10 prioritised research questions on **DIAGNOSIS** of maternal birth-related injuries.

1. Can measures to improve the working conditions of healthcare personnel lead to a greater number of injuries being diagnosed?	Diagnosis of maternal birth-related injuries in genitally mutilated women
2. Can information to parents, before and after childbirth, about the symptoms of injury and their complications, and where to seek treatment, lead to better diagnosis?	
3. How can the medical services best contribute with respect to childbirth and post-delivery follow-up: <ul style="list-style-type: none"> • differentiate between second-degree and third- or fourth-degree perineal tears and best assess the extent of tissue and underlying muscle involvement in a second-degree injury (tear or episiotomy)? • diagnose levator ani muscle damage and deeper vaginal tears? 	
4. Can a systematic examination at the time of delivery give a better diagnosis (including postpartum examination of every patient by more than one person and later examination if complications occur); and how does local anaesthesia before examination influence the potential to make the correct diagnosis?	
5. Can more injuries be detected if obstetric room personnel undergo targeted measures to improve knowledge ?	
6. How soon after delivery should childbirth injury be diagnosed in order to treat the injury as well as possible?	
7. Can a more detailed basic examination at the follow-up appointment lead to better diagnosis?	
8. How reliable is various diagnostic equipment in detecting maternal birth-related injuries?	
9. How can the medical services best diagnose pain associated with sexual intercourse (dyspareunia) and its cause?	

1=highest ranking. Genitally mutilated women were considered to be an important group for inclusion in research with respect to all the prioritised questions and therefore run parallel with other topics.

Table 2 Top 10 prioritised research questions on **PREVENTIVE METHODS** used during delivery.

1. What effect does the delivery room working environment have on the incidence of maternal birth-related injuries?
2. What is the effect of regular (recurrent) training of obstetric room personnel and the importance of the level of experience of the obstetric healthcare team on the occurrence of maternal birth-related injuries?
3. What effect has structured follow-up of the results of different clinics and their working routines on the occurrence of maternal birth-related injuries?
4. What effects do duration of labour or duration of the different stages of labour , and the administration of oxytocin to accelerate labour, have on the occurrence of maternal birth-related injuries?
5. What is the effect of the availability of various levels of professional support in the delivery room (including various support in communicating with the woman in labour) on the occurrence of maternal birth-related injuries?
6. What is the effect of different forms of perineal management techniques during delivery in preventing maternal birth-related injuries?
7. What is the effect of an episiotomy during non-instrumental delivery on the occurrence of maternal birth-related injuries?
8. What effect does individual risk assessment of women before or at the start of labour and information about the advantages and disadvantages of various procedures and planning of measures based on this (e.g. caesarean section, recommended delivery position) on the occurrence of maternal birth-related injuries?
9. What is the effect of various pain-relief measures on the occurrence of maternal birth-related injuries?
10. What is the effect of inducing labour , including membrane sweep, on the occurrence of maternal birth-related injuries?

1=highest ranking.

Table 3 Top 10 prioritised research questions on treatment of **SECOND-DEGREE PERINEAL TEARS**.

1. How would a **change in attitude** towards second-degree perineal tears from the perspective of the injured woman influence care and the treatment outcome?
2. Which is the best method of **suturing second-degree** perineal tears induced during delivery, in order to prevent later complications?
3. In cases of complications or persistent symptoms after a second-degree perineal tear, what would be the effect of better continuity of patient care, with **information** about where to seek help?
4. How should **follow-up** and **post-partum treatment** and **information about self-care** of second-degree perineal tears be organized to ensure the best possible treatment outcome?
5. What would be the effect of obstetric healthcare personnel undergoing **indepth or continuing education** about second-degree perineal tears and subsequent complications?
6. If the stitches in a second-degree perineal tear give way, should the wound be **resutured or not**? For resuturing, which is the best method?
7. Can **further grading** of second-degree perineal tears, for example according to which muscles are involved and how deep the tear is, result in better treatment?
8. What is optimal **rehabilitation by a physiotherapist** of a second-degree perineal tear, during delivery and at a later stage when symptoms occur?
9. Can **collection and analysis of data from registers** over second-degree perineal tears, including short- and long-term complications, lead to increased knowledge which would result in better treatment in the long run?
10. What is the best approach to **untreated or incorrectly treated** second-degree perineal tears some time after delivery: surgical or conservative treatment?

1=highest ranking.

Table 4 Top 10 prioritised research questions on treatment of **THIRD- OR FOURTH-DEGREE PERINEAL TEARS**.

1. What effect has advanced and continuing education for obstetric healthcare personnel about third- or fourth-degree perineal tears, and subsequent complications?	What is the best treatment of third- or fourth-degree perineal tears in women who have been subjected to genital mutilation ? What is the effect of equal medical care nationwide on treatment of third- or fourth-degree perineal tears?
2. What is the best method of treating untreated or incorrectly treated third- or fourth-degree perineal tears?	
3. Should third- or fourth-degree perineal tears be resutured and if so what are the indications ?	
4. What effect does the attitude of obstetric care personnel have on the treatment outcome of third- or fourth-degree perineal tears and the prospect of referral for further treatment?	
5. What should treatment of third- or fourth-degree perineal tears comprise? Surgery, physiotherapy, medication, dietary advice, pain relief etc?	
6. What effect does either individually tailored or general information have on a woman's third- or fourth-degree perineal tear? Information about what parts are affected, what problems are most common and how long do they usually last?	
7. What is the best treatment for pain which persists for a long time (months or years) after a third- or fourth-degree perineal tear?	
8. How should follow-up be organized in order to achieve the best possible outcome after a third- or fourth-degree perineal tear?	

1=highest ranking. Genitally mutilated women were considered to be an important group for inclusion in research into all the prioritised questions, as well as the effect of equal medical care throughout the country. These questions therefore run parallel with the other questions and were not given any particular ranking.

Table 5 Top 10 prioritised research questions on treatment of **INJURY TO THE LEVATOR ANI MUSCLE**.

1. What is the effect of surgery and the development of new surgical methods on injury to the levator ani muscle and injury to the levator ani muscle in combination with other maternal birth-related injuries?	
2. What is the effect of physiotherapy on levator ani muscle injuries?	What treatment is effective (including mechanical support from medical appliances) for various types and severity of levator ani injury?
4. What effect have measures intended to increase the level of knowledge in relevant nursing personnel with respect to levator ani injury?	
5. What psychological support or treatment is effective in cases of levator ani injury?	
6. What is the most effective treatment of levator ani injury at different time-points ?	
7. What effect has structured and long-term follow-up on levator ani muscle injury?	
8. What is the effect of different forms of team organization on treatment of levator ani injury (physiotherapist, doctor, midwife etc)?	
9. What effect has various forms of loading (including own physical training, working posture), what is beneficial and what should be avoided by people diagnosed with levator ani injury, and can information about this counteract later complications?	
10. What effect has surgery compared with other treatment , or no treatment , or physiotherapy combined with surgery ?	

1=highest ranked. The working groups considered two questions to be of equal importance and therefore awarded them equal second place.

The project group and external reviewers

The project groups comprised a total of 64 people (14 in each working group) representing healthcare personnel (midwives, doctors, physiotherapists, urotherapists, registered nurses) and women who had experienced birth-related injuries during delivery. The participants in the various working groups are listed in the full report in Swedish Chapter 7 (www.sbu.se/300).

Project leaders from SBU: Karin Rydin (project leader), Maria Ahlberg (project administrator), Sara Fundell (project administrator), Christel Hellberg (project leader), Marie Österberg (project leader).

External reviewers: Gunilla Tegerstedt, Senior Medical Officer, Med dr, and Frida Trönnberg, patient expert.

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