



Midwives' Experience, Knowledge, and Perception of Assisting Water Birth in a Hospital Unit - A Qualitative Interview Study

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Abstract

Background: the opportunity for women to give birth in water vary globally, and in Sweden waterbirth is offered in some of the maternity clinics in the country. An increased demand of water birth from pregnant women have been noticed. Research on waterbirth mainly focuses on women's experiences, but rarely on midwives' knowledge and perception.

Aim: the aim of this study was to describe midwives' experience of, and knowledge about waterbirth. With a qualitative method and inductive approach, 16 midwives with varying experience, working in a clinic that provides waterbirths, were interviewed. The interviews were analyzed with content analysis.

Results: The difficulty of estimating bleeding in water was perceived as a challenge. Also, the surveillance of the baby when CTG was used was another challenge. The working environment for the midwife working in positions where they had to lean into the pool was also mentioned as a challenge. The state of education and knowledge was varying, but trusting one's skills in assisting a waterbirth was based both in the level of experience as a midwife and in the number and frequency of assisting waterbirths. The clinic's policies and guidelines on waterbirth also played a part in the perceived safety.

Conclusion: midwives experienced of waterbirths was that waterbirth is positive both for the woman and the midwife herself. Knowledge was obtained mainly through practical experience, other midwives, and clear guidelines.

Keywords: Pregnancy, Waterbirth, Midwives' perception of water birth, Knowledge of water birth

Background

For a woman with low-risk pregnancy, waterbirth is an alternative in many countries. In Sweden pregnant women's request and midwives' willingness to assist birth in water have led to that water births are offered in some clinics in the country.

In a Swedish study with the aim to study views about waterbirth among Swedish health care professionals it was found that both midwives and physicians reported lack of experience, knowledge and guidelines related to waterbirths. In that study midwives had a more positive attitude to waterbirth as well as towards providing and implementing waterbirth, compared to obstetricians. Also, midwives mentioned significantly more benefits and fewer risks for women and babies, compared to obstetricians who requested more evidence.¹

In a study from UK research of what midwives enjoy about caring for women who use water immersion revealed three themes: instinctive birthing; woman-centered atmosphere; and undisturbed space. Exploration of the challenges experienced with waterbirth revealed two themes: learning through reflection and facilities required to support waterbirth.²

How confident are Swedish midwives to assist during waterbirth? Do they need specific training for waterbirth? What facilities do labour wards need to be able to offer women waterbirths? Midwives' experiences and perceptions related to waterbirth are relatively unexplored, and no previous research has been conducted in Sweden. Therefore, this study aims to investigate Swedish midwives' perceptions related to waterbirth, experience and knowledge of assisting during waterbirth within traditional maternity care in hospitals.

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Method

We conducted a qualitative interview study, with in-depth interviews and semi-structured questions. The collected data was analyzed with a content analysis with an inductive approach.³

Setting and participants

Sixteen midwives at one hospital located in Stockholm, Sweden offering water births participated in the study. The participants were in the age between 32 – 58 and had been working as midwives for 4 – 30 years. During the period the study was undertaken the clinic had 3 310 vaginal births and 142 of these was water births.

Data collection

Data collection was done during autumn 2020 and the spring 2021 by three interviewers (IW, Se, and AE). Information about the study was given to midwives working in the setting through e-mail and during workplace meetings. In total 16 midwives participated in the study.

Interviews

Items in the interview guide could be phrased as *'tell me about your perception on water birth as a midwife'*. Interviews lasted between 30 min-60 min. All interviews were recorded. The interviews were performed according to a thematized interview guide finally developed after two test interviews. The following themes were explored.

- Experience of waterbirths
- The midwife's opinion of water births?
- Pro- and cons in relation to waterbirths
- Are there challenges in relation to assist during water births in a hospital unit?

- Have you had special training in assisting waterbirths? Are there any local regulations at your clinic related to waterbirths? For you in your role as a midwife what is there a difference between assisting in water compared to other births?

Analysis

The recorded interviews were transcribed verbatim and read several times to obtain correct information from the from respondents. A content analysis with an inductive approach was used to analyze the data.³ The interview transcripts were completed to organize, structure the data, and to gain an in-depth understanding of the research material. There were several steps in the work with data: interviewers initially listened to the interviews; the texts were then read through several times, and interviews were discussed at length. This was done with the aim to gain an improved understanding of the data and overall study credibility. Secondly, meaning units were identified; these are texts with information related to the aim of the study Table 1. The meaning units were then condensed to reduce the quantity of text, yet still maintain the content. After this step the condensed meaning units were labelled with a code and grouped into sub-categories that reflected the central message of the interviews. These categories consist of the manifest content. Finally, the sub-categories were formed into four overall generic categories, representing the latent interpretation of the data. During the process of grouping codes into categories and the forming of generic categories, researchers repeatedly discussed the data and the analysis. The themes and categories were checked toward the content of the interviews again. Lastly researchers checked data again and the result of the analysis for congruency.³ In all steps, the original transcripts were referred to several times to make sure that the results reflected the whole picture and maintained the validity of the text.

Table 1: Examples of codes emerging into themes

Meaning units	Code	Subcategories	Generic category	Main Category
It is a great pain reliever for the woman. In the second stage of labour stage but (also) later when some women choose to give birth in water as well. And it has worked very well.	They might manage completely without (other pain relief).	Less interventions	Possibility for a natural birth	Physiological birth

Findings

Eleven subthemes and four categories describing midwives' experiences and perceptions related to waterbirth were found Table 2. These were: positive aspects for the pregnant woman, possibility for a natural birth, factors making the midwife confident and challenges for the midwife.

Positive aspects for the pregnant woman

Several positive effects of waterbirth were mentioned by the

midwives. Pain relief in water, relaxation and women centered care were mentioned.

Pain relief in water

All the midwives participating in this study mentioned pain relief as an important argument for giving birth in water. This effect made the women calmer during birth. One aspect that also was mentioned was that the warm water was positive for blood circulation specifically benefitting the perineum during the second

stage. The situation when a woman in labor had to step out of the bathtub and how this effected the woman negatively was seen as a proof of the pain relief waterbirth give to women.

- *It is a great pain reliever for the woman. In the second stage of labour but (also) later that some women choose to give birth in water as well. And it has worked very well. They might be able to do without, more than this water. Then it may be that they need nitrous oxide in the meantime but are also very relaxed and feel that it is a very nice way to deal with their pain.*

Relaxation

To be able to relax in water was mentioned by 10 out of 16 midwives. Several midwives said that the nice environment which was not like any other room at the hospital made the women relaxed.

- *"I believe that if you have experienced a water birth you change your perceptions of harmony. It isn't such a big thing. But it only.. it comes in a package. A calm midwife in a calm environment. It is less light in the room maybe some small candles. Or small lamps. Some music on.*

- The midwives also said that the water created a caressing and protective feeling which made it easier for the woman in labour to relax. This calm environment contributed to a calm passage for the baby during and after birth.
- *"A nicer transition from the uterus to the world"*

Women centered choice

According to the interviewed midwives it is important that the wish for a water birth comes from the woman giving birth herself. They expressed that the women who had decided to give birth in water was motivated and understood the method before labour started.

- *"Yes, it is good for me as well. It ... very often very special. They are calm and calmer. Of course, giving birth is painful but they are more ah motivated and know what they are doing in a way. Sometimes when they are first-time mothers I believe, They are led by their intuition and... what do you say more on ... eh what do you call it? The body do the job. Instinct was the word I was looking for".*

Table 2: A physiological birth subtheme and generic category

Subthemes	Generic category	Main category
Pain relief in water	Positive aspects for the person giving birth	Physiological birth
Relaxation		
Women centered choice		
Less interventions	Possibility for a natural birth	Less medicalized care
Waterbirth in harmony		
Policies and guidelines at the clinic	Factors making the midwife confident	Confidence in the role as a midwife
Communication with the woman		
To learn from colleagues with experience		
Estimation of blood loss	Challenges	Factors making birth safe
Surveillance of the baby with CTG		
Working environment		

A possibility of a natural birth

The interviewed midwives valued the woman's options highly and considered that water birth was something that strengthens the pregnant woman through a more independent and natural birth. Concepts such as "empowerment" and women-centered care recurred during several interviews. To have a physiological birth with fewer interventions was something mentioned during the interviews in many of the interviews.

Less interventions

During water births the interviewed midwives noted that there were fewer interventions and easier to follow the natural course. To

be able to offer a method that could mean fewer interventions were perceived positive by the midwives. The midwives also reported that the women themselves asked for a water birth, to reduce interventions.

- *"If it's a mother like that who has qualified to give birth in water, then there will be less interventions. Because they are like in their little puddle of water and hang there and then it becomes like, it becomes more natural and but doesn't intervene as much. Neither ... no, but you don't have to do so many vaginal examinations, just as often if they don't want it and if fetal heartbeats sound okay, then it will be nothing more than just ordinary monitoring of the baby".*

Waterbirth in harmony

The normal physiological birth was something that several midwives said needed to be strengthened in hospital environments. According to many of the interviewed midwives, they regarded waterbirth to be supportive to the birthing woman in providing a physiological birth.

- "I would like to say uh that the women were more informed that it is possible to stimulate labor as well as in other ways than with oxytocin and how to promote the own oxytocin, so that they are given the conditions, if she copes with it, so to speak. To give birth physiologically, absolutely.

- "The room, the water and the light create harmony"

Factors making the midwife confident

The midwives explained different aspects that made them confidence in their role as midwives during water births. This theme consists of three subthemes; policies and guidelines at the clinic, communication with the woman, to learn from colleagues with experience.

Policies and guidelines at the clinic

The midwives said that earlier there had been a certain opposition against water births, mainly from obstetricians and pediatricians. The midwives explained that this was a reason for why it had taken some time to introduce the method at the clinic. Now, after the start of water births they believed that the obstetricians were more supportive, and they said that the fact that the physicians themselves had participated in planning for water births and introduction of the method was behind this development.

"High belief in water birth is good and we want so badly to make it good for the women. We who work here. Almost all midwives working at the clinic think ... want also ah, create this opportunity. That is what matters most. And we have managers that believe in this method as well. If the managers don't believe in this nothing will happen".

Communication with the woman

A prerequisite for a water birth is that the woman giving birth and the midwife have a good communication both before and during the birth. This is important because it will give the woman informed choice and safety. The midwives stressed that waterbirth is different from births "on land" and it is therefore important that the woman giving birth and her partner have had information based on evidence and experience and agreed on this.

"Or another thing is that they might want to lift their back and they shall not pass over the water line. You must communicate carefully about this. While pushing you must be under the water. The baby should be born in the water. Absolutely not lift your lower part of the body and then back in the water again".

To learn from colleagues with experience

According to guidelines at the clinic there should be two midwives present during the birth of the baby which was something that they said was positive. All staff had participated during a whole day where they had education about waterbirths from different perspectives.

- *"And then when we have a waterbirth it is always an experienced midwife and a midwife less used to waterbirths attending. There are always two and eh if you feel that you are not experienced enough you ask a more experienced colleague to be present. The idea is that it should be a learning opportunity".*

Challenges

Midwives in this study mentioned that there were some challenges with waterbirths. Three things were mentioned: estimation of blood loss, surveillance of the baby with CTG and the working environment in general.

Estimation of blood loss

Some of the midwives in our study mentioned difficulties in estimating the blood loss during water births. They said that they had to be prepared for that they might need more staff if complication arises in the bathtub or pool.

- *Often you can estimate blood loss anyhow. I believe. And then get up from the water. It becomes cold in the water after a while, You take them to the bed in order to keep mother and baby warm and then you can observe the bleeding as well.*

Surveillance of the baby with CTG

Some of the midwives in this study experienced it difficult when CTG was used, and it was not possible to see the CTG pattern in the bathroom.

"Even if you do not need to have CTG continuously during normal birth you might need to check the baby if you notice something different when you listening to the baby's heartbeat in the pool or if the woman has been in the pool for a very long time. Then it would be good to have a possibility to see the CTG pattern in the room. This is a challenge in a hospital setting but not during birth in home settings".

Working environment

Midwives in this study valued that there were bathtubs in all rooms. This made it possible to offer all women a waterbirth. However, they wished that design and placement of the bathtub could be more accessible, for both the midwife and the woman and her partner. The bathtubs should be more round in their design so that partner and midwife could come in closer proximity to the woman. The midwives in this study said that if the woman wanted to give birth in water, they preferred to use the birthing pool which is round and have soft edges.

- *The bathtubs are too small from what I think. It had been better if they were bigger. The pool is much better because there are more room for movement for the woman. Too move freely.*

Discussion

Little is known about Swedish midwives' experience and opinion in relation to assisting during water birth. There are indications that the practice is gaining in popularity. However, in one conducted study from 2020 both Swedish midwives and obstetricians reported lack of experience of waterbirths but in that study only 26,7 % of the midwives and 9,5 % of the obstetricians reported that they had experience of attending waterbirths.¹ This in contrast to our respondents where all interviewed midwives had attended at least one water birth.

Many midwifery theorist describes how the birthing environment can support or hinder physiologic birth.^{4,5} The protection of women's integrative power and autonomy during birth is another aspect of the birthing environments' positive affect on women in labour according to these midwifery theorists. Harmony is a word used in some interviews where the midwives describe a special harmony that a waterbirth can create for them as well for the women giving birth. In our study, supportive policies and guidelines were one important part of waterbirth to the midwives and played an important role in the assisting of water births.

Swedish midwives experience and knowledge of assisting women during waterbirths within a traditional maternity unit have not, to our knowledge previously been published. Findings from our study is in line with results from a study exploring midwives' perception of confidence around facilitating water birth in Western Australia conducted seven years ago.⁶ Midwives' confidence to support water birth was directly related to their level of confidence in supporting a natural physiological birth. Being competent with water birth was an issue at this time in hospitals in Western Australia as it is today in Sweden.

One way of achieving trustworthiness in qualitative studies is if researchers are knowledgeable in the topic of study before commencing the study.⁷ In this study, the authors are all midwives with clinical experience of assisting women during birth. A thoroughly described and performed analysis process will provide methodological credibility. Overall, our results might not be straightforward transferrable to other similar settings as in this study, some of the challenges to midwives were related to the

hospital specific guidelines and routines, i.e CTG-monitoring and equipment.

Conclusion

The midwives had a positive experience and perception of water birth and felt that waterbirth promoted the natural birthing process. The method involved several challenges for the midwife, both logistically and practically. The midwives experienced that clear guidelines and a positive workplace attitude contributed to create the best working conditions.

Ethical Approval

Ethical approval was given by the Swedish ethical review authority (Dnr 2019-00993).

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Declaration of Interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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