FACILITATORS AND BARRIERS TO THE DEVELOPMENT OF A MIDWIFE-LED-UNIT IN A SWISS UNIVERSITY HOSPITAL: A QUALITATIVE STUDY

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Abstract

Introduction

The development of medical-led care in obstetrics in past decades has contributed to improving outcomes for both mother and child. Although efficiency has improved in complex situations, medical-led care with unnecessary interventions is still practiced in low risk pregnancies against international recommendations. A shift to less interventionist model of care has encouraged many countries to review their policies on maternal health care, and develop models of care such as the « Midwife led Unit » (MLU) where the midwife plays a predominant role and a minimum of routine intervention. Existing research has provided convincing evidence that MLU's lead to better maternal and neonatal outcomes, when compared to traditional models; while improving the level of satisfaction amongst women, they are also associated with reduced healthcare costs. This research study aims to describe the facilitators and barriers to the development of a MLU in a Swiss university hospital.

Method

A descriptive research study using qualitative methods was conducted among pregnant women and new mothers in a Swiss university hospital, as well as midwives and obstetricians working there. Data collection was carried out through one-to-one interviews, focus groups and telephone interviews (n=63). After transcription, thematic analysis was performed.

Results

The research highlighted that most women welcomed the idea of a MLU in the university hospital and specifically how it could help in offering women continuity of care. Healthcare providers (HCPs) were optimistic about the implementation of a MLU appreciating the need for some women to find a less-interventionist approach in this institution and highlighting some barriers such as inter-professional collaboration. The triangulation of perceptions from women and HCPs supported the implementation of a MLU to promote physiological delivery in the context of a university hospital.

Conclusion

Alternative models to provide maternity care for low risk women have been developed and evaluated widely outside of Switzerland. The testimonials from women and HCPs in this Swiss university Hospital encourage the development of a new care model, taking into account the specific expectations and barriers brought forward by the participants.

Keywords: Midwife led unit, maternity services care model, midwifery, continuity of care, physiological childbirth, qualitative research.
Background and review of the literature

In industrialized countries, the hospital has become a privileged place where women give birth [1]. The obstetrician's involvement and responsibility in normal childbirth has become predominant, and consequently the number of medical interventions being carried out has increased without necessarily being beneficial, particularly among women with low risk pregnancies [2]. Back in 1997, the World Health Organisation (WHO) published recommendations on the diagnosis of labour, artificial rupture of membranes, use of oxytocics, the number of vaginal examinations during labour, and electronic foetal monitoring [3]. WHO recommended restricting the use of these interventions. Despite recommendations supported by the National Institute for Health and Clinical Excellence (NICE), RANZCOG (Royal Australian and New Zealand Colleges of Gynaecologist and Obstetricians (RANZCOG), the New Zealand College of Midwives (NZCOM) and the Royal College of Obstetricians and Gynaecologists (RCOG) continuous monitoring of women with low risk pregnancies is still widely performed [4-7]. Increase in medical-led care in maternity services has also continued despite the recommendations described above. Positions taken by recognised professional bodies have not sufficed in reducing the gap between the current obstetric practices and the existing research evidence [8].

While maternal and neonatal mortality rates during childbirth, have fallen over the past 60 years, for either medical or social reasons, the medical supervision of labour and childbirth has long exceeded its efficiency [9, 10]. The recent increase in caesarean sections is not linked to health benefits; instead it contributes to a rise in the rate of mortality/morbidity [8, 11, 12] and, in the short term is affecting the relationship between mother and child [13, 14]. Furthermore, the mother may encounter emotional sequels [15].

New challenges for health professionals lie in avoiding unnecessary medical care of physiological pregnancies and childbirth [16]. In order to overcome this emergence, many countries are implementing alternative models of care that improve outcomes for both mother and child, seek to avoid unnecessary medical interventions and promote normalcy during pregnancy and childbirth [17]. The National Service Framework in UK (NSF) for Children, Young people and Maternity Services in 2004 stated that women should be able to:

“choose the most appropriate place to give birth from a range of local options including
...delivery in midwives led units” page 27 [18]

In the United Kingdom, the proposal outlined in Making it Better for Mother and Baby (2007) states that women have the choice to either deliver at home, in a local facility under the care of a midwife or by a local maternity care team. Today, approximately 4% of the women in UK have their babies outside of hospital facilities, including Midwife-Led-Units. Many countries have thus reviewed their maternal health policies, adjusted their protocols based on proven scientific data, and developed new care models such as the Midwife-Led-Unit [19].
A Midwife Led Unit (MLU) can be defined as giving an emphasis to normality of birth for women who present with low risk pregnancy, with midwives as the main health care professional [20]. Midwives are trained to observe, identify and encourage the physiological process of pregnancy and childbirth, and be attentive to any abnormalities [21, 22]. The MLU aims to provide care to minimise unnecessary intervention in labour and to involve the woman and her partner(s) in decision making. Active labour, mobilising, upright positions, eating and drinking are encouraged and will help women to labour successfully. Providing women with the option to have more than one birth companion for support may also minimise stress [20]. The focal point of the care delivered in the MLU is to humanize childbirth as well as promoting self-determination in the woman. The underlying philosophy relies not only on the normality of labour but also on the continuity of care, and of the carer as the midwife who accompanies and monitors the pregnancy and childbirth [23, 24].

**Evidence in Switzerland**

Switzerland is not excluded from the growing trend of medical interventions: the number of caesarean sections being performed in Switzerland is 10% higher than in other European countries such as France, Sweden, Norway, Germany, which has not contributed to improving either the mother or the child’s health [1]. Switzerland healthcare presents the specificity to be provided through compulsory insurance premium [1]. Therefore through their health policies, women have the right to choose the place and the healthcare providers (midwife or obstetrician) that will provide their 7 antenatal care appointments [25, 26]. Women with low risk pregnancies in Switzerland are therefore presented with a diversity of options for antenatal care and place of delivery: 18 birth centres are offered throughout Switzerland and in 2012 a rate of about 4,3% of births happening outside of hospital which includes MLUs [27, 28]. In comparison Netherlands counts 26 birth centres with 11, 4% of birth occurring in them [1].

Despite the availability of different options for maternity services (as described in healthcare policies), alternatives models to medical-led care is not as widely used in Switzerland as it is in other countries such as the Netherlands or UK [1]. Hospitals strive to improve quality services and meet patients’ needs. With 97.5% of births occurring in hospital settings, this mission is even more relevant [29].

The tertiary Maternity Hospital of the Canton of Vaud (CHUV) is one of five University hospitals in Switzerland. Its increasing intervention rate is representative of the emergence of the medical interventions in Switzerland (table 1).
An Evaluation of this Maternity Hospital between 2005-2006 on patient’s satisfaction highlighted several key areas for improvement: a lack of information provision, the lack of homogeneity in the information received, and a multiplicity of intervening stakeholders [30]. Continuity of care and of the carer, decision-making with the women are essential components of MLU that can be offered to women who are using the maternity services. By promoting normality and the continuity of care by expert midwives dedicated to a non-interventionist philosophy of care, a MLU can improve the quality of the services already delivered to women.

Given the lack of evidence on the pre-requisites for the development of a MLU in practice, it is essential to explore the facilitators and the barriers to the process of MLU development in order to justify its creation and components. Adopting such an organizational change can lead to extra or inter/intra organizational levels change.

The focus of this study is to explore inter- and intra-organizational level changes associated with the development of a MLU based on the opinions of women and HCPs who deliver maternity care [31-33]. Obtaining women’s views about their expectations in relation to antenatal care, childbirth, and the postnatal period will aid the development of an adequate service model (such as the MLU) which will meet their needs. Additionally, obtaining the views of HCPs (midwives and obstetricians) regarding the development of the MLU will allow a deeper understanding of the phenomenon and address the aims of this study.

This study specifically aims to explore the facilitators and barriers to the development of a MLU in a University Hospital in Switzerland. After presenting women with the envisaged service model, women’s perceptions of, and interest in, receiving maternity care through a MLU will be investigated.

### Table 1: Statistics of interventions in the University Maternity Hospital of the Canton of Vaud 1991 and 2009

<table>
<thead>
<tr>
<th>Intervention</th>
<th>1991</th>
<th>2009</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deliveries (birth)</td>
<td>1822</td>
<td>2511</td>
<td>+38%</td>
</tr>
<tr>
<td>Caesarean sections</td>
<td>20.5%</td>
<td>32.5%</td>
<td>+57%</td>
</tr>
<tr>
<td>Instrumental deliveries*</td>
<td>10.1%</td>
<td>7.7%</td>
<td>-24%</td>
</tr>
<tr>
<td>Induced labour</td>
<td>19.2%</td>
<td>27.3%</td>
<td>+42%</td>
</tr>
<tr>
<td>Post caesarean section</td>
<td>8.4%</td>
<td>27.3%</td>
<td>+54%</td>
</tr>
</tbody>
</table>

*Forceps were they only instruments used at the time for instrumental deliveries
Methods

The study took place in the tertiary maternity hospital for the Canton of Vaud that has around 2,700 births per annum, from March to June 2011. It is a university teaching hospital that offers midwifery-led care for healthy women with uncomplicated pregnancies and provides specialist obstetric, anaesthetic and neonatal services for women with complications. In order to elicit data on the topic of interest, a descriptive research design using qualitative methods (focus groups, one-to-one interviews, and telephone interviews) was selected [34, 35]. The study was approved by the Ethics Committee of the faculty of Medicine of the Canton of Vaud in January 2011. Each participant received an information sheet explaining the study, and a consent form to sign if they agreed to be part of the study.

Participants

Two groups of participants were recruited: women (A) during pregnancy and (B) three months after birth, and maternity HCPs: midwives and obstetricians.

Women inclusion criteria: The participating women had to be > 18 years of age and have no history of caesarean sections in order to be eligible to access the MLU in this institution. Additional characteristics: (A) women with singleton pregnancies and (B) women who had given birth to one child with no maternal or neonatal pathology at the University Maternity Hospital.

Maternity HCPs were also interviewed. Eligibility criteria for this group: (1) midwives and (2) obstetricians working at the time at the University Maternity Hospital. This accessible population provided a convenience sample.

Sample Size

The research team aimed to recruit a sample of 40 women (antenatally and postnatally) to address the research questions; this number was restricted due to financial and time constraints.

A sample of 10 Obstetricians and 20 midwives was intended in order to have the opinion of the professionals who have expertise in the topic of this study. This number represents 50% of the potentially available population (the actual available population is unknown, as the numbers of HCPs on holiday, maternity or sick leave could not be identified).
Recruitment

Women

During pregnancy, women were invited to participate by the midwives who were giving the prenatal classes. Approximately 50 women received information about the study during antenatal classes and 14 women agreed to take part in this study and participated in two focus groups.

Women who had given birth (and who fulfilled the inclusion criteria) were recruited by the postnatal midwives. Forty women were called between one and four weeks after giving birth. Ten women could not be reached or an appointment was not possible. Thirty telephone interviews were conducted.

Healthcare Providers (HCPs)

All midwives of the Department of Obstetrics and Gynaecology (DGO) (n=50) were contacted by the research team and asked to participate in a focus group as part of this study; ten midwives agreed to participate.

Nine of the 12 available obstetricians of the DGOG were contacted by the research team and agreed to participate in an interview.

Data Collection

Appropriate qualitative research methods were selected according to the participant group (e.g: due to time constraint it was more convenient for obstetrician to be interviewed in a one-to-one interview, it was more practical for new mothers to do a telephone interview, and more convenient for midwives to participate in a focus group at the beginning or end of a shift). Table 2 presents the qualitative methodology adopted by participant group.

Table 2: Type of qualitative method related to the type of participants

<table>
<thead>
<tr>
<th>Type of qualitative methods/participants</th>
<th>Focus groups</th>
<th>One-to-one interview</th>
<th>Telephone interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnant women (n=14)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women during postnatal period (n=30)</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Midwives (n=10)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obstetricians (n=9)</td>
<td></td>
<td></td>
<td>x</td>
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</tbody>
</table>

The topic guide for focus groups with the women and interviews with the HCPs were developed from the literature and included five questions on the following topics:
• Their perceptions of the development of a Midwife Led Unit (MLU);
• The specificities of the MLU;
• The collaboration between HCPs
• The women’s needs;
• The MLU guidelines.

The focus groups and telephone interviews were audio-recorded and transcribed verbatim. Field notes which were taken during one-to-one interviews with the obstetricians, and typed up.

Analysis

Thematic analysis allowed the authors to develop a rich thematic description of this under-researched area. Thematic analysis permitted to identify, analyse and report common themes with a minimum level of interpretation from the researcher [34].

The focus group and interview transcripts were analysed using thematic analysis. The field notes which were taken during one-to-one interviews with obstetricians were also included in the analysis.

The analytic process included 6 steps taken from Braun [35]:

1. Preparing the transcript;
2. Generating initial codes from marking the words or sentences relevant to the topic of inquiry;
3. From the codes, draft themes were generated within an iterative process;
4. The main categories and sub-categories of the themes were then identified;
5. The draft themes were then reviewed by the researchers involved in the analysis and defined;
6. The results were then written up.

Two researchers were collaborating during the analysis phase. Regular discussion about the most recent findings were organised in order to refine the analysis and get consensus when discrepancies of meanings between them arouse, and increased the comprehensiveness and rigour of the results.

Results

A total of 63 participants agreed to participate in the study: 14 pregnant women, 30 women who had given birth, 10 midwives and 9 obstetricians.

This section will present the results from interviews and focus groups with women, midwives and obstetricians.

Focus Groups with women

Several themes, categories and sub-categories were identified during the focus groups with women, as summarized in figure 1.
Aspects of Prenatal care

Continuity or transfer of care

The majority of women who were interviewed agreed that the treatment they received in a private practice during their pregnancy was better when it was carried out by the same caregiver. Many women found it difficult to have a group of gynaecologists following them during their pregnancy, but not having a designated caregiver who was specifically responsible for them:

“I was in an office where there were three gynaecologists. Once I was seen by one, then by another, and the next time it was yet another who did the ultrasound. It wasn’t regular and it destabilized me. There was no real continuity. Each time we had to start over to re-establish trust. The lab results were not seen to because it was not the same person each time. They basically passed the ball around.” (W16)

Women often expressed that continuity of care in private practices or at the maternity in the CHUV as being important. It would allow them to communicate and establish trust in their relationship with the professionals:

“Each time you have to re-explain the whole pregnancy; tell a small biography each time. It is true that it would be much nicer to have the same person. What was indeed important for me was the exchange: to feel at ease and to be able talk openly about certain things, certain worries. It was mostly about being reassured, being listened to. With this constant change, conversations remain short and we don’t know each other.” (W15)

Going from a private practice to the CHUV was often reported as being quite easy, although a few women stated it was a difficult transition, especially if they had complications. Two women explained the lack of clear and continuous communication when having in and out hospital HCP in the context of maternal and foetal complications:

“I did not feel able to rely on my doctor, who knew me best but withdrew from my case when I needed him: when I had no more amniotic fluid. I tried to contact him to discuss but he did not call me back. I did not have any other consultation with him. I went to the hospital two times a week.” (W2)

Communicating with the HCPs

During pregnancy, women often gave feedback on communication with their HCPs, and whether they felt that they have been listened to. Some associated the outcome with private insurance, which might, in their eyes, ensure better care.

“My first gynaecologist was a lout. I know he is an excellent doctor but he has no humanity whatsoever. (...) what is important to me in a gynaecologist are his listening skills, his ability to care for someone – people skills - and less of the cold, medical doctor”. (W1)
When we don’t have private insurance, some gynaecologists send us to the CHUV as quickly as possible and no longer want to hear from us because we are financially uninteresting; that didn’t happen with my gynaecologist.” (W3)

A welcoming environment, a professional and human aspect of care is important for women. Generally, women who were interviewed spoke positively about the welcoming environment, and the professional and relational competences of the staff, especially the midwives. Women sought empathy and gentleness in their interactions with HCPs One woman expressed that depending on the caregivers, establishing such a relationship could be difficult.

“I have given birth twice in the CHUV. On both occasions, I was impressed by the midwife’s profession because I was in the hands of teams of people whom I found fantastic; women who gave birth, will remember the people who care for them during those very crucial, and very important moments in their lives; hence that impressed me.” (W3)

After childbirth, the first few days spent in the post-partum unit are important moments in the life of new mothers. During interviews, women expressed the need to have more support in caring for their babies, particularly breastfeeding. Women repeatedly expressed how important it was for them to be reassured by the HCPs and to be able to learn how to care for their new born babies.

“As I was leaving, I asked a nurse, because she had regurgitated in the hospital and there were traces of blood, and that they had not explained this further, so I asked and I was told it was normal. When a spoonful comes out, and it looks as if it is fresh blood, we really panic. Just telling us what might happen would be nice so we do not worry.” (W8)

Health content information

Women expected to receive sufficient information and a high level of communication with HCPs; they highlight the importance of receiving spontaneous explanations using terms and language they understand:

“In fact they often use medical terms which we don’t understand, they use words we don’t know at all, well after we ask but they explain using terms, we don’t necessarily understand. They forget that we know nothing about this (laughs).” (W10)

Many of the women interviewed expressed that they would have liked more information from the HCPs, assisting them in understanding the various phases of pregnancy/child birth:

“Sometimes, I would have liked to have a little more information or at least understand what was happening. I would have also liked to understand what was happening in my body; and also my husband and I, would have liked to better understand the situation.” (W12)
Partner’s involvement

Women attributed great importance to the role of their spouses during childbirth. They highlighted how professionals, doctors and midwives, were attentive to the father and his feelings during childbirth, explaining the procedure to him and then allowing him to hold the baby as soon as the baby was born:

“I think that for the first time, he felt valued because since it took a little longer, he had the time to stay and we went through the whole labour process together in the hospital. He asked for a few things, to be able to hold the baby on his chest, right after it was born, things he had not dared to ask the first time (this was their second child) and which had not been suggested”. (W14)

The father’s presence in the delivery room was greatly appreciated by the mothers who felt that they were already being well cared for by the HCPs and by their spouses. However, one woman would have liked to have had her husband by her side the night after the birth of their child.

“It is true that in an ideal world, it would have been to let my partner sleep there (in the postnatal room), but it was not possible. “ (W12)

Women’s perceptions of a MLU

Continuity of care

Generally, interviewed women were optimistic about the MLU that would ensure the continuity of care during their pregnancies and childbirth, and the care given to their baby during their stay. Women expressed that continuous care by the same staff would be both positive and reassuring. MLU could satisfy the need to normalize childbirth, to render it more natural and to guarantee emergency care for complications that might arise.

“What is good in this [the MLU] is that, it is in the same building as the CHUV and that it could be natural so it’s quite good in case of complications; it is a good idea! It reassures the woman, who at the last minute may worry about something happening to their baby; there can always be a last minute decision, and to be able to decide, for example, to have an epidural, which is a good idea”. (W17)

Women’s Expectations of the MLU

The women clearly expressed their expectations about the care at the CHUV and how the MLU could satisfy their needs.

The women's expectations of what the MLU should encompass to address their needs are summarised below:

- Be reassured and understood from both a medical and a psychological perspective;
- Be assured that if necessary, transfer to a medical unit were available at any time;
• Be psychologically well prepared, for childbirth;
• Be able to count on the continuous presence and availability of care givers;
• Feel more in control of the choice of the analgesic and the positions for childbirth;
• Be able to count on the father’s presence;
• Benefit from a calm environment allowing the family to be together.

**Barriers to the development of the MLU**

Two main barriers were highlighted to the development of the MLU.

Some women felt concerned that they would only be cared for by midwives from the beginning of their pregnancy through to childbirth, in case the relationship between them worsened and communication subsequently became difficult. Future mothers reported that they felt safer in the hands of a gynaecologist. Midwives were perceived as being responsible for providing emotional support during pregnancy, accompanying women in childbirth, and providing post-partum care, and not for delivering medical care during the pregnancy:

“Like that, spontaneously, I less like the idea to be seen by a midwife during my pregnancy compared to my gynaecologist. However, for childbirth or post-partum, probably yes.” (W14)

The same woman expressed the need for the MLU to clarify the roles and responsibilities of midwives, so that women are aware of, and know what to expect from midwives involved in their care:

“I feel, in my knowledge, that we (women) are very gynaecologist-oriented, for the antenatal care follow-up. I have the impression that people feel that midwives come in at the end. Therefore we should really be told what more this would bring us.” (W14)

**University hospital midwives**

**Continuity of carer**

Midwives working for the DGO who care for pregnant women felt that continuity of carer leads to both a better recognition of their expert skills and satisfaction of the women.

Women need to establish a strong and lasting relationship with their midwife and often express the desire to be accompanied by their midwife during childbirth.

“With medicalised modern obstetrics, care for women has become fragmented; there is less and less responsibility to take by the woman. A holistic perspective allows for the development of “obstetric intuition” and professional and personal enrichment”. (Focus group Midwife, female)

“This project corresponds to an increasing demand... especially in so far as continuous care given by the independent midwife during the whole pregnancy”. (Focus group Midwife, female)
Midwives, both in hospital and independent, reported that the MLU model could meet the needs of part of the low risk women. Even when they appreciated that this population represents a small proportion of the women attending the hospital, they acknowledged that the need for a MLU exists and that this minority of women will play an important role in the evolution of the MLU. Midwives expressed that the MLU could be an opportunity to meet the needs of women who want personal attention, and who request to be personally accompanied by the midwife in a safe environment because hospital signifies safety. Many midwives felt that the MLU could be the perfect opportunity to introduce a change in maternity service models.

“This unit would meet the needs of all women with normal pregnancies and who do not want unnecessary medical care. What is important is to be well informed. This unit would be a place where women would be welcomed with their wishes and needs and their competences; women must have confidence in themselves to give birth.” (Focus group Midwife, female)

“It would allow us to increase and diversify the number of units respecting physiology; women seeking an alternative do not necessarily want to give birth at home or in a birth centre.” (Focus group Midwife, female)

“It is the right time to instil this change; the population’s needs are evolving. There are more requests for alternative medicine”. (Focus group Midwife, female)

Professional role and competences

The midwives perceived their current professional role as an opportunity to develop autonomy and to once again become “guardians of physiology”. The competences of those working in the unit and their training were also mentioned:

“We respect each one’s competences and highlight their independent and autonomous aspects. Interdisciplinary work is reinforced.” (Focus group Midwife, female)

Change and inter-professional collaboration

The change that the MLU may introduce and the acceptance of the project by obstetricians were seen as risks. Midwives considered what it would be like to collaborate with current obstetricians and paediatricians.

“Changing habits is challenging: we have to be prepared for resistance and it will take time.”

(Focus group Midwife, female)

“We must reassure the medical staff and integrate them.” (Focus group Midwife, female)
“We must pay attention to flexibility and communication amongst and between teams.” (Focus group Midwife, female)

Many healthcare professionals questioned how to integrate a unit preoccupied by physiology in a hospital where pathology dominates:

“The main obstacle is still implementing the model inside the hospital: a physiological island surrounded by a sea of pathology.” (Focus group Midwife, female)

To better prepare women who would like to be accompanied in such a model, the professionals highlighted the importance of building women’s self-confidence and improving the information given and the prenatal preparation.

“It would be interesting for the woman to be cared continuously by one midwife; knowing a second midwife or the team, to feel more confident too. Knowing the person who will be present during the birth of the child is a major factor. This is the point in maintaining physiology. Preparation for birth will have to be adapted to the needs of these women (…) the fears of childbirth will have to be discussed in depth, not just rushed over”. (Focus group Midwife, female)

**Obstetricians**

From the field notes taken during the one-to-one interviews, the obstetricians favoured the development of a MLU. Nevertheless, obstetricians provided some practical suggestions about the process of developing and implementing a MLU in practice. Their comments are grouped into four different themes including facilitators and/or barriers to the development of a MLU: Guidelines, Inter-professional Collaboration, Evaluation and Choice of the Couple.

**Guidelines**

The criteria for transferring patients from the MLU should be precise and strictly respected. Transfers should be anticipated, announced in the delivery room and quick. Neither the woman nor the midwife should ever consider the transfer a failure.

**Inter-professional collaboration**

All maternity units should work hand in hand and the patients should sense it. Patients should be prepared to meet the medical team, feel confident and not demonize doctors.

Knowing when a pregnancy is abnormal is challenging. The midwife who assumes the role within a MLU must be very competent and experienced. Some obstetricians proposed that a system where senior midwives were mentors should be developed and integrated within a MLU.

At the start of the interview, some obstetricians were concerned that there may not be physiological situations requiring their expertise in standard delivery rooms and feared the consequences of this when training residents. But, by the end of the interview, almost all of the obstetricians interviewed
They also highlighted that this could lead to organizational challenges. **Evaluation**

All obstetricians interviewed felt that it would be logical to respect physiology and limit the number of interventions delivered during normal pregnancies. They feared, however, that to keep patients in the MLU, complications might be minimized and push for normality in clinical situations that should be transferred to labour ward. Some proposed to develop an evaluation tool to monitor obstetric outcomes and criteria, as well as couple's satisfaction with care. **Choice of the couple/women**

Some obstetricians insisted that being cared for in an MLU must be the choice of the couple/woman. Even in normal physiological situations, some couples/women may still prefer the standard medicalized process. **Discussion**

The purpose of the study was to describe women's and HCPs views of the facilitators and barriers to the development of a MLU. The MLU model has existed for many years and has demonstrated, through scientific studies, a clear benefit for the health of mother and child [2, 36]. As the model does not exist in the canton of Vaud in Western Switzerland, it justified our investigation. We sought to explore the opinions of women and various HCPs in the field regarding the development of a MLU in their vicinity, including the acceptability of such a project. The findings of this study could improve the development of a health care system which would better meet the needs of the population [37]. Pregnancy is a period when women are engaged in the health care systems and can therefore play an important role in assessing the care delivered by maternity services. We also included statements from HCPs to give a more comprehensive picture of the opportunities for, and the barriers to, the development of a MLU.

Our findings suggest that women are looking for maternity care that can provide continuity of care that acknowledges the importance of good communication between the women and their HCPs [38, 39]. Women appreciated and understood the benefits of giving birth in a MLU which confirms the existing evidence about the effectiveness of this care model [17, 20, 21]. Women also expressed their need for information that is relevant to them, and that is presented in appropriate and understandable language [40]. The involvement of the women's partner in the maternity care pathway was highlighted as being important to women interviewed in this study, who referred to their partners as 'service users'. The identification of partners as service users was previously highlighted by Sandall et al, in 2013 [23]. Therefore a specific attention should be given to include partners in the maternity care pathway.
Findings from our study revealed that the development of a MLU model is well accepted by pregnant women and first-time mothers. Most of the women interviewed in this study would have liked to have a follow-up appointment in such a unit. Opportunities for development of a MLU were seen as a valid option for physiological birth that is not yet provided for some women who are looking for non-interventionist maternity care within the hospital settings.

Midwives working in a MLU are the primary caregivers during antenatal, childbirth and postnatal care. As a barrier for the development of a MLU, women expressed an ambivalence in perceiving that human aspect of care is important (HCP being a good listener and supportive) and that the midwives they met were particularly welcoming and good communicators. But women perceived that midwives expertise is most related to childbirth and postnatal care, and not so much about antenatal care which is classically organised with an obstetrician. A recommendation for practice would therefore be to focus on improving women knowledge about the scope of midwife’s activities specifically about antenatal care follow-up and the way that skills and competences of the midwife are communicated [41, 42].

Women have expressed the importance of continuity of care, reducing the number of interventions and personalizing the system for those who have chosen this type of care during pregnancy and childbirth [43]. In contrast, the absence of epidural anaesthesia in the MLU was scarcely addressed by the participants in this study. Women didn’t expressed apprehensions or doubts linked to the unavailability of this pain relief option, demonstrating the open-mindedness of women accepting a different model of care for pregnancies and childbirth [44].

Midwives and obstetricians both positively reported the possible development and development of a MLU within the maternity department of the University Hospital. Midwives and obstetricians acknowledged the benefits of a MLU to the women who may use the service in the future. By having the focus of one midwife throughout their pregnancy, women using the MLU may be more satisfied with the healthcare that they receive, women’s self-confidence may increase, and birth outcomes may improve [23].

Nevertheless, obstetricians expressed their anxiety regarding service change, development of a unit focusing on physiology within a tertiary unit referral centre for pathologies, and the need for good inter-professional collaboration [45].

HCPs reported that there could be greater autonomy for midwives in a MLU and that this would encourage the physiological birth process. The existing evidence highlights that training midwives who would work in the MLU is crucial to its success [46]. The responsibility conferred upon midwives within a MLU implies greater accountability. Currently, accountability this responsibility is shared between obstetricians and midwives, which can be confusing. There is a risk that each healthcare professional will rely on the colleague who is primarily responsible for the patient. Accountability entails a re-appropriation of the role of the midwife as defined by the law [47, 48]. This new model
provides an alternative to the usual physiological birth in hospital, which guarantees optimal safety conditions due to the proximity of the technical plateau; it also satisfies the couple’s needs.

Midwives and obstetricians also highlighted that communication plays an important role in the quality of the exchanges between those involved. HCPs highlighted the need to develop an evaluation tool that will permit to evaluate obstetrical outcomes as much as patients’ satisfaction.

Strengths and Limitations

This study reports for the first time descriptive qualitative findings about facilitators and barriers to the development of a MLU in Switzerland. One of the main strength is that it includes not only views from women that could be eligible for this unit but as well the HCPs who could deliver care in this unit. The results of this study provide precious insight: an opportunity for service development to respond to women’s needs and HCP’s current feeling about the development of an MLU will help inform strategic planning at the organizational level.

There are some limitations to our study. Firstly, because of time constraint and difficulties for the HCPs to give some of their precious time, several data collection methods were used: pregnant women were interviewed during focus groups, newly mothers by telephone, midwives were interviewed during focus groups, and obstetricians were interviewed individually, which made the triangulation of the data more difficult. Secondly, the views of migrant women are not represented in this study. Nevertheless, views of independent midwives caring specifically for migrant women were collected in the same topic and will be presented in a separate paper.

Conclusion

Looking at inter- and intra-organisational levels for the development of a strategy, both women and HCPs expressed their positive views on the development of a MLU within a hospital setting. They described this unit as being able to provide continuity of care by midwives who are generally perceived as being very supportive and having strong communication skills. Several barriers have been highlighted from developing trust in midwives who are not visible today as the leader in physiological antenatal care, to inter-professional collaboration.

Proposing a new model for maternity care services within a university hospital ensures safety and scientific legitimacy, not only for women and their families, but also for obstetric professionals. They, in turn, will transmit different perspectives than those of fear and risk. Prior to, and in parallel, “re-conceptualizing” childbirth is needed. This is a paradigm shift that goes far beyond the hospital: switching from a medical concept to a women-centred care that enhances women’s resources.
The results of this study are encouraging and will be reported to the maternity and hospital administrators hoping to facilitate the development of this model of care. The challenges that have been disclosed will need to be evaluated using the recommendations of the HCPs involved in this study. We acknowledge that the complexity of the issues related to the development of such a unit are extra-organizational as well including funding issues, national strategy, develop incentives or adoption of public health approach which are not explored in this study. Therefore more studies are needed to evaluate the wider range of opportunities or barriers for the development of a MLU in a hospital setting.
Competing Interest

The authors disclose that there are no competing interests (financial and non-financial).

Authors’ contributions

FM was the main investigator, with substantial contribution to conception and design, acquisition of data, analysis and interpretation of data as well as the process of writing, CD has been involved in the acquisition of data and analysis and made a substantial contribution to the writing of manuscript, LC proceeded the analysis of the interviews and wrote the synthesis of the results, PH worked as a scientific advisor for the overall project and has given final approval of the version to be published, BS contributes substantially for planning, development and analysis of the research as well for writing of the article.

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References


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<td>Public-private practice</td>
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<td>Characteristics of the HCPs</td>
<td>Empathy, good listener</td>
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<td></td>
<td>Heath content information</td>
<td>Diverse source of information, non-medical terms</td>
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<td>Partner’s involvement</td>
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<td>Women’s perceptions of a MLU</td>
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<td>Women’s Expectations of the MLU</td>
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<td></td>
<td>Barriers to the development of a MLU</td>
<td>Medical versus emotional support, same carer</td>
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Figure 1: Examples of subcategories, categories, and themes. (Inspired by B. Byrne [32]).
Additional files provided with this submission:

Additional file 1: Reviewer's comments- BMC.pdf, 188K