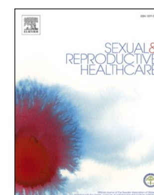
Sexual & Reproductive Healthcare 36 (2023) 100857

Contents lists available at ScienceDirect

Sexual & Reproductive Healthcare

journal homepage: www.elsevier.com/locate/srhc



Births in freestanding midwifery-led units in Norway: What women view as important aspects of care

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ARTICLE INFO

Keywords:
Maternity care
Birth
Freestanding midwifery-led unit
Women's experiences
Birthing environment

ABSTRACT

Objective: To describe what women view as important aspects of care when giving birth in freestanding midwifery-led units in Norway.
Methods: Data from four open-ended questions in the Babies Born Better survey, Version 1, 2 and 3 was used. We performed inductive content analysis to explore and describe women's experiences with the care they received.
Results: In all, 190 women who had given birth in midwifery-led units in Norway between 2010 and 2020 responded to the B3 survey. The final sample comprised 182 respondents. The analysis yielded three main categories: 1) The immediate birth surroundings, 2) Personal and safe support, and 3) Organisational conditions.
Conclusion: This study adds valuable knowledge regarding what women describe as important aspects of care in free-standing midwifery-led units. Women experience maternity services in these units as peaceful, flexible and family-friendly. However, some women perceive the freestanding midwifery-led unit as a vulnerable service, mainly due to lack of midwives on call and uncertainty around temporary closure of the freestanding midwifery-led units. This finding points to the importance of staffing of birth facilities to ensure that all women giving birth have available midwifery care at all times, which is recommended in the National guidelines for care during labour and birth. Predictability around place of birth for the upcoming birth is crucial for every woman and her family. These goals might be achieved by a stable, continuous maternity service in all geographical areas of the country.

Background

Midwifery-led units are locations offering maternity care to healthy women with uncomplicated pregnancies in which midwives take primary professional responsibility for care. The units may be located away from an obstetric service (freestanding midwifery-led unit (FMU)) or adjacent to an obstetric service (alongside midwifery-led unit (AMU)) [1 p.2]. The rate of births in midwifery-led units varies from approximately 0.5 % in the United States to > 10 % in New Zealand and the Netherlands [2], and 14 % in England [2,3]. The evidence suggests that healthy women expecting an uncomplicated labour and birth planning to give birth in FMUs have better clinical outcomes including less risk of post-partum hemorrhage requiring blood transfusion and admission to intensive care level of care compared to the same group giving birth in the obstetric unit. Care in FMU is also associated with better experiences and cost-effectiveness. [2,4]. The same review and meta-analysis indicate that place of birth has no statistically significant impact on infant mortality [2]. International research shows that women who used FMU services were satisfied with the care they received during labour and reported positive experiences. In Denmark, birth experience and satisfaction with care were rated significantly more positively by women who had given birth in FMUs than by women who had given birth in obstetric units [5]. Similarly, studies in England reported better experiences for women who chose to receive care in an FMU [6,7].

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https://doi.org/10.1016/j.srhc.2023.100857
Received 20 November 2022; Received in revised form 5 May 2023; Accepted 10 May 2023
Available online 23 May 2023
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Knowledge about the performance of FMUs in Norway is scarce and limited to two studies performed between 1995 and 1998 [8,9], one study performed between 2007 and 2011 [10], and one study performed between 2008 and 2010 [11]. They concluded that the risk selection performed at the FMUs was satisfactory with respect to desired outcomes [8,9,11], transfer rates [11], and that the results were comparable to those achieved by other FMUs in Western countries [10]. Women's birth experiences and perceptions of care in FMUs have been only scantly explored. In Norway, knowledge of women's birth experiences and perceptions of care in FMUs is non-existent. Two national surveys on women's perceptions of maternity care have been performed [12]; however, there are no results for FMUs, due to a dearth of responses.

The aim of this study is to describe what women view as important aspects of care when giving birth in an FMU.

Material and methods

Background information to present study

Intrapartum maternity services in Norway are organized into three levels of care; specialised obstetric units, obstetric units and midwifery-led units [13], and the parliament has decided that care should be differentiated and decentralized. In 2020, there were approximately 53,000 births in Norway, in 45 maternity institutions. There were 17 specialised obstetric clinics, 22 obstetric units, four AMUs and six FMUs [14]. Norway is divided into four health regions: Northern, Middle, Western, and South-Eastern.

FMUs are mainly situated in rural areas, staffed by midwives, and offer antenatal, intrapartum, and postnatal care for women in their catchment area. Healthy women expecting an uncomplicated labour and birth can give birth in the FMU if they want to. Women in the catchment area who are selected to give birth in an obstetric unit usually receive antenatal care by the midwives in the FMU, in cooperation with a general practitioner and/or the outpatient clinic in the nearest hospital with an obstetric unit. After birth in an obstetric unit, women may return to the FMU for postnatal care.

In 2010, there were 11 FMUs in Norway, in three of the four health regions, with a total of 789 births [14]. Between 2011 and 2016, five of the 11 FMUs closed, leaving one FMU in the South-Eastern region and five in the Northern region. The number of births in all except one FMU decreased, and in 2020 the total number of births in FMUs were reduced to 282 [14]. An overview of the FMUs and number births can be found in Supplementary files 1 and 2.

Data collection

To describe what women view as important aspects of care in FMUs, we used data from the Babies Born Better (B3) survey, Versions 1, 2 and 3. The B3 survey is a web-based questionnaire designed to identify factors that underpin women's views and experiences of maternity care across Europe. The B3 project was developed within the framework of the EU COST Action IS0907 and IS1405. Salutogenesis was the underlying theoretical framework for the survey; what works, for who and under which circumstances [15].

The survey has been translated to 25 languages and collected data in three waves between 2014 and 2022 (See Table 1). It was launched through social media, mainly through Facebook, where the link was spread to relevant groups.

The first section of the questionnaire requires fixed responses related to demographic and clinical factors. However, this part of the survey was modified as V2 and V3 were developed. Therefore, for this study, we report the following four variables which are reported across all three versions: place of birth, year of birth, age when reporting, and parity. The main sections invite open responses, which is designed to elicit women's views of positive factors and suggestions for change after their experience of care in the place they gave birth. The answers to the four open-ended questions provided data for this study (Table 2). The wording of some of the questions changed slightly from V1 to V2 but all questions remained unchanged for V3.

Table 1
B3 Versions (V) and recruitment periods.

Version	Recruitment period	Inclusion criteria*	Number of questions
V1	February 2014–May 2016	given birth the last five years	20
V2	March 2018–August 2018	given birth the last five years	22
V3	June 2020–December 2022	given birth the last three years	23

* No exclusion criteria.

Each woman could give up to ten free-text responses to the open-ended questions; accordingly, the number of units of analysis was higher than the number of respondents.

Sampling

All respondents to the B3 survey who had given birth in Norway during the 2010–2020 period in a FMU and who had given at least one response to one of the four open-ended questions listed above were eligible for inclusion in this study. Eight respondents were excluded because they had not provided response to one of the four open-ended questions.

Positionality and reflexivity

All authors have a background from clinical and academic midwifery, the first author having 20 years of experience as a midwife from a FMU. Some of the authors have researched users' experiences from different levels of care. All authors believed at the outset that FMUs are an important part of maternity services in Norway. Within the research team we discussed how our own experiences and values could influence the way we interpreted the data. We challenged each other continuously to maintain critical reflections on this matter.

Table 2
Open-ended questions in the three B3 Versions.

	Version 1	Version 2 and 3
1.	What were the three best things about the care you got there [in the place where you gave birth]?	In the place where you gave birth, what were the three most positive experiences of your care?
2.	If you had the power to make three changes in the care you had [in the place where you gave birth], what would the changes be?	What do you think could have made your experience better?
3.	Imagine a very close friend or family member is pregnant. They have asked you to give them a really honest description of the care you got at the place where you had your last baby. You can only use up to six words or phrases. What would those words or phrases be?	Imagine you are talking to a very close friend or family member who is pregnant and that she is trying to decide where to give birth to her baby. She asks you what you think about the place you gave birth. Please answer here by finishing one or both of the following sentences: "I think you should give birth at the place where I did because… I think you should not give birth at the place where I did because…"
4.	Please write any comments you want to make here. These could explain your answers in more detail or add any other information you would like us to know about your experiences with maternity care.	Please write any comments you want to make here. These could explain your answers in more detail or add any other information you would like us to know about your experiences with maternity care.

Qualitative analysis of data from the B3 survey

We performed descriptive, inductive content analysis to explore and describe women's experiences with the care they received in FMUs [16,17]. We followed an iterative procedure comprising the following phases; preparation, organising, and resulting [17]. In the preparation phase the aim was to become familiar with the entire dataset by reading the responses several times. In the organising phase the dataset was imported into NVIVO and the first and last author worked together performing manifest, open coding of the meaning units. Next, codes with related meanings and common points of reference were grouped together under higher order headings forming subcategories. This was a process of going back and forth, comparing and discussing the units of analysis, codes, and grouping. Thereafter, through interpretation, we decided which subcategories belonging together in the same category. Finally, the whole team was involved when we abstracted the content of each category and formulated a general, coherent description of the research topic. Table 3 provides examples of the analysis process.

Research ethics

Ethical approval for the B3 survey study was granted by the Ethics Committee of the University of Central Lancashire (UCLAN), in the UK (Ethics Committee BuSH 222). The current study was approved by the Norwegian Data Inspectorate (NSD) (ref: 905533).

Results

Women's views on important aspects of care in FMUs

Responses from 182 women were included in the analysis. Fifty-two had given birth for the first time, 74 for the second time, 43 for the third time, and 13 for the fourth or fifth time. The responders represent all FMUs except one which closed in 2011. The content analysis resulted in three main categories and nine subcategories (Table 4).

In the following, each category will be presented and illustrated with quotes from the responders. The quotes were translated into English and are presented with information on year of birth, age of the respondent when reporting, parity and B3 version.

The immediate birth surroundings

This category includes four subcategories that are of importance to the women in the immediate situation when they are giving birth in the FMU.

Table 3
Examples of meaning units, codes, and subcategories.

Meaning unit	Code	Subcategory
Large tub with hot water	Water pool	Facilities and atmosphere in the birthing room
Cosy atmosphere and homey	Homely atmosphere	
Had a family room and there was always food available	Private room	
Very kind midwives! Both before during and after the birth I felt safe	Feeling safe	Competence and safety
The midwives were so experienced and knew exactly what they were doing	Skilled midwives	
I knew the midwife from before the birth, both me and my husband had confidence in her	Known midwife	
That visitors could come when it suited me instead of at specific visiting times	Flexible visit hours	Flexible and close to home
Close to home, easy for older siblings to visit	Close to the family	
I was allowed to stay for as long as I wanted (6 days)	Flexible stay	

Table 4
Main categories and subcategories.

Main Category	Subcategory
The immediate birth surroundings	Family-friendly care
	Peace, quiet and plenty of time
	Strategies for dealing with labour pain
	Facilities and atmosphere in the birthing room
Personal and safe support	Genuine and personal care
	Competence and safety
Organisational conditions	Flexible and close to home
	Continuity of care
	Vulnerable services

Family-friendly care

The respondents appreciated that the units were family friendly, and many respondents mentioned this as the best part of the care they received.The fact that the partner was allowed to be present throughout the birth process and for the new family to stay close together after the birth of the baby was highly appreciated.

> *The option to have a partner present during birth and throughout the stay. For security and to share the experience of our first born. The offer of a family room was hugely appreciated! (2017/23/first birth/V2)*

The term 'family friendly' also indicates how the midwives cared for, or on the contrary, did not care for the partner during labour and birth. The care could entail both practical support, such as food or a comfortable chair, as well as emotional support during difficult moments.

> *[We wanted] More attention to the support person, who had a hard time and needed a hug. (2011/37/third birth/V1)*

Peace, quiet and plenty of time

Virtually all respondents mentioned that peace and quiet in the unit were among the most important aspects of care. Many women experienced being the only one giving birth in the unit, which created a calm atmosphere.

> *In a small FMU, where there are rarely several women giving birth at the same time, you get all the attention and avoid the stress of busy midwives running in and out. (2013/26/second birth/V1)*

Many respondents also pointed to the positive feelings they experienced when the midwives could give them their full attention during labour and birth, and postpartum because they did not have to attend to other women at the same time.

> *The midwife was constantly present before, during and after birth and looked after the baby well when I needed rest. (2016/29/third birth/V2)*

Some women experienced that being able to decide for themselves when they wanted to go to the unit during early labour was important, and they related this option to the fact that the midwife did not have other women to attend to.

> *Calm, time for me and my husband. There was no stress, we were allowed to come when I felt the need. The midwife was ready and welcomed us on the stairs. Even then, I became calmer, and the pain became more bearable. (2012/29/third child/V1)*

Strategies for dealing with labour pain

To deal with labour pain, women mentioned using the bathtub,

inhaling nitrous oxide and receive massage as good strategies for pain relief. Some respondents noted that they did not need any pain relief and could cope without it because of the attention of the midwife. However, a few women wished for the opportunity to choose between more alternatives, especially an epidural.

They don't offer an epidural, so if you want this, you have to find another place. (2018/35/fourth birth/V2)

Facilities and atmosphere in the birthing room

The facilities in the unit were important to the respondent and noted if absent. Examples were comfortable furniture and having a private room with an ensuite bathroom. Having access to various types of food round the clock was also appreciated. The chance to have a water birth or use a pool for relaxation were mentioned by many respondents as the best part of the care:

The FMU also has a large bathtub that you can give birth in. Absolutely all the midwives are also fantastic. After the birth, you can also sleep in nice maternity rooms with a private bathroom, double bed, TV, and corner for visitors. You can be hospitalised there for as long as needed! (2020/33/third birth/V3)

The atmosphere in the birthing room was also important to the responders. They described the atmosphere with words such as 'homey', 'harmonious', 'cosy', and 'pleasant.' The absence of visual medical equipment also contributed to the warm and homey atmosphere.

Calm atmosphere with only the people I wanted present; midwife, my husband, my mother. (2015/31/third birth/V1)

Personal and safe support

This category unites two subcategories related to personal and safe support. The first subcategory narrates different facets of professional support and actions, while the other shows how women's feelings of safety are connected to various aspects of the care.

Genuine and personal care

Many respondents highlighted various facets of midwifery care and support as among the best part of their experience, and this was likewise called for if missing. An important part of support and care was communication between the midwife and the labouring couple. This was mentioned briefly by some women, who used the terms 'good communication' and 'positive communication'. Other respondents went more in detail and described that they appreciated the thorough information provided throughout the labour and birth process, especially guidance on, for example, birth positions.

I received very good information along the way. I was told that, within the given deadline, there was a helicopter to the hospital due to the long pushing time. The midwife also informed me that she had anaesthetised me ready to be cut. Neither part was necessary because, with this information, I was able to bring out the primal powers to push the child out naturally, without further pain relief. (2018/27/second birth/V2)

Furthermore, the respondents emphasised the importance of individual care, including lots of encouragement, praise, and personalised contact. To feel well cared for by a caring midwife was vital to the women. They appreciated understanding, kindness, patience, honesty, and humour.

You are so well taken care of; close follow-up, good care and incredibly helpful. They take good care of mother and child. (2018/29/third birth/V2)

Being seen and heard and the fact they could decide for themselves and follow their own rhythm throughout the process were also a part of how the respondents experienced professional support.

I had an absolutely wonderful birth, and the atmosphere around the midwives made everything perfect. There was a calmness in the room. I could do what was best for me and my body. (2018/31/fourth birth/V2)

Competence and safety

Many respondents mentioned the feeling of safety as one of the best parts of the care they received while giving birth in the FMU. The midwives who cared for them were characterised as very competent in their work, and the women connected this competence to their feeling of safety. They used words such as 'clever', 'knowledgeable', and 'skilled' to describe the midwives who cared for them. Furthermore, they seemed to appreciate midwives who appeared experienced in their work.

The midwife had 30 years' experience, and I felt very confident that she could welcome the baby. (2018/22/second birth/V2)

Experiencing that the midwives appeared decisive, determined, and clear also contributed to feelings of safety for the women. If the midwives did not hesitate in situations requiring action, this felt safe and good for the respondents.

The midwife was skilled, made good and quick decisions during birth, as well as being good at making me feel safe. (2017/33/second birth/V2)

Furthermore, some women connected the feeling of safety to the possibility of giving birth close to their home and emphasised the short travel distance. However, some women stated that they did not feel safe in the FMU, because of the distance to the nearest obstetric unit, if complications should arise.

I think I had a very nice birth. At times, I was very afraid that, if something were to go wrong, I was two hours away from the nearest hospital. Born in the winter, so the roads could quickly have been closed due to bad weather. In the FMU, there is a small birthing room, and if things go as normal, it is a dream to give birth there. You get your own private room, so you don't have to share with others. Partners are allowed to be with you during the birth and for the entire stay in the days afterward. (2018/22/second birth/V2)

Continuity of care was also a factor that, for some women, created a feeling of safety. Knowing the midwives beforehand was an important factor.

I knew the midwife before the birth; both I and my husband had confidence in her. (2011/35/third birth/V1)

Organisational conditions

This category is composed of three subcategories that indicate different organisational conditions in the services that are of importance to women when they are giving birth in FMUs.

Flexible and close to home

Respondents found the service in the units to be personalised and tailored to their needs. They highlighted what they perceived as a very flexible service. Having the chance to be admitted during the latent phase of labour and remain for however many days the respondents needed to establish breastfeeding routines were highly appreciated.

Incredibly happy that I was in a place that could take care of me in the latent phase and not just send me home. I have not experienced such a bad latent phase before, but the midwives in the FMU saved me through that too. (2020/33/third birth/V3)

The flexibility in relation to visiting hours was also important for the

respondents. Many women emphasised that having the birthing unit close to one's own residency is very positive. They appreciated that they did not have to travel far to the birthing unit, which they thought would have been an unpleasant experience.

It's close to home, safe and easy. (2013/35/second birth/V2)

To have the birthing unit close to place of residence also meant that visitors, such as older siblings and other family members, could come during the stay.

Continuity of care

The women highlighted the importance of continuity of care and a known midwife for a positive experience. There seem to be several aspects of meaning related to the experiences of continuity. First, women point to the fact that, when they received antenatal care in the unit, they knew everyone who worked there and were familiar with everyone during labour and birth. Many women emphasise that this continuity and familiarity contributed to a feeling of safety in themselves and their partners. Others considered it important that the midwives were aware of their history and that they had discussed several aspects of labour and birth beforehand. This meant that their wishes and needs were known to the midwife when they went into labour. At the same time, the respondents found it equally important that they knew the midwives' attitudes toward labour and birth.

Having the same midwife during labour who has followed me up through the pregnancy was absolutely fantastic. She knew, through the conversations we had at the check-ups, what I thought and needed during a birth. Through these conversations, I had also become confident in her competence and experience. It says a lot for the birth process that you feel safe and looked after! (2020/33/fourth birth/V3)

The midwife knew my story/thoughts about the birth, and I knew she would be positive about a natural birth. (2010/31/second birth/V1)

The women also mentioned that they appreciated that the delivery and postnatal ward were combined; thus, they could stay in the same familiar place during the entire visit.

Vulnerable services

Some of the respondents were concerned regarding the vulnerability of the services in the FMUs. They mentioned that, during public holidays, they met midwives who were not familiar to them and also observed that these midwives did not know the unit or where to find the necessary equipment. Some units were even closed during the summer holidays, which made the service unpredictable for women in the uptake area. In some of the FMUs, there was only one midwife on call, and the respondents perceived the arrangements for accessing a second midwife to be unsatisfactory.

[It could have been better with] Another midwife on duty, so that we didn't have to wait for a midwife who was accompanying another woman to the hospital. (2014/36/fifth birth/V2)

If you give birth during holidays or at night, you may run the risk of not being able to get hold of a midwife or of getting a midwife who does not know where things are in the delivery room. (2014/36/fifth birth/V2)

Some respondents pointed to the distance to the nearest hospital with obstetric emergency services as a second vulnerability, especially for women who were giving birth for the first time:

I am very happy with the place of birth but would not recommend first-time mothers to give birth here, as you never know what can happen during a birth. And having to go to a hospital in a hurry by plane or helicopter when life is at stake can suddenly become dangerous. I have easy births and couldn't think of a better place to give birth. Fantastic to get all the attention from midwives. (2013/26/second birth/V1)

It was suggested that the service in the FMUs should include gynaecologists and paediatrics not only in the case of emergencies but also to create good conditions for more women to give birth in the FMU.

Discussion

This is the first study to explore what women giving birth in FMUs in Norway describe as important aspects of care. The results show the importance of the immediate birth surroundings which included several aspects that were important to and valued by the women, among them the presence of the partner throughout the entire process of labour, birth, and the postpartum stay. It seems as if the FMUs were able to accommodate the birthing women regarding companionship and that the women were given the opportunity to choose the how, who and when for themselves. The importance of a companion during labour and birth for all women has been indisputable stated [18], as have the negative consequences when companionship is missing [19,20]. This became evident during the COVID-19 pandemic when almost all delivery wards in Norway introduced restrictions regarding partners visits and stay at the wards; the women felt lonely, isolated, and disempowered without their partner present [20].

The immediate birth surroundings in the FMU provided women with a feeling of peace, quiet and plenty of time. Feeling that the midwife could give them the attention they needed and that there was no hurry in the environment was highlighted by most of the women in the study. This is in contrast to large specialised obstetric units, where, due to shortage of staff, some women report feeling of giving birth at an assembly line [21]. One-to-one care during labour is recommended by the WHO for all women to ensure a positive childbirth experience [22]. It seems as if the concept of 'peace, quiet and plenty of time' captures the women's perceptions of one-to-one care during labour. The term 'watchful attendance' has been introduced to describe the support and the activities of the midwife during childbirth [23,24]. This term indicates that every labour has its own rhythm and timing and that enabling women to give birth in their own time requires being with the individual woman rather than merely doing things to her. The term expresses a combination of continuous support, clinical assessment and responsiveness. It seems that midwifery care in FMUs has the qualities indicated by the term 'watchful attendance', but the mechanisms involved must be further explored.

The results show that a feeling of personal and safe support was an important aspect of care. This finding is in line with research performed on all levels of maternity care in Norway [21]. Relationship and trust were found to be the key pillars of a well-functioning FMU in a study from UK [7]. A feeling of safety is individual and complex and influenced by both internal and external factors [25]. It is not given that the notion of 'feeling safe' has the same meaning for all childbearing women; it may have medical, emotional and relational aspects [21]. In our study, however, the feeling of safety was strongly connected to the perceived competence of the caregivers. Thus, perceived competence encompassed the midwives' communication skills, appearance, and decisiveness, which may have been interpreted as indicating relational safety. One explanation for this phenomenon may be that women who give birth in a FMU have already opted out of what is seen as the 'medical safety net' in an obstetrics unit. Still, the results show that medical safety is also visible, with a few women stating that they did not feel safe in the FMU, because of the distance to the nearest obstetric unit, in case they needed medical treatment. Furthermore, continuity and familiarity in the services contributed to a feeling of safety for the women and their partners.

The FMUs offer antenatal care for all women in the uptake area using two models: either the women come to the FMU, or the midwives employed in the FMU travel to out-patient clinics in the communities

[26]. Either way, the continuity of care model was highly appreciated by the women in this study, which is in line with previous research [27]. Continuity of care models incorporate the overarching concept of the relationship; the women become familiar with the midwives and the environment before they go into labour, and the midwives learn about women's wishes and needs [28]. The results of our study show that one important facet of the continuity model was the way in which the women came to learn about the midwives' attitudes and values regarding labour and birth during antenatal care. During antenatal care, the women developed a trust in the midwives' competence and experience, which reinforced a feeling of safety during labour and birth. These findings expand our understanding of what a continuity of care model means to women and how to promote physiological birth and achieve optimal outcomes for mothers, babies, and families [2,4].

The result of the study highlights the fact that women identify both positive and negative aspects of the organisational conditions concerning this level of maternity care in Norway. On one side, the proximity to home and the perceived flexibility in the services; on the other side, the vulnerability of the services. For example, in the FMUs, the women felt that they could decide for themselves when to be admitted during labour. This stands in contrast to other levels of care, in which women in the latent phase of labour are often asked to stay home as long as possible [29]. Because there is often not more than one woman giving birth in the FMU at a time, there is usually only one midwife on call. Some women pointed to this as a vulnerable way of organising the care, which made them feel unsafe, much like, for example, the threat of the FMU closing down during summer. The FMUs have organised staffing and the on-call systems in different ways, and not all have a second midwife on-call around the clock [26]. The national guidelines for maternity care from 2010 state that '…a midwife in the FMU must be able to call for quick help from a midwife on call' [13]. The national guidelines are now under revision, and there is a new, strong recommendation that all birth facilities should be staffed with a sufficient number of midwives so that each individual giving birth has midwifery assistance available at all times. Furthermore, for women in active labour, there should be one-to-one midwifery care [30]. It is still not clear what implications the new recommendations will have for the organisation of FMUs in Norway. However, as the women in our study point out the vulnerability in the FMU services leading to feelings of unsafety, highlights the need for proper staffing in the future.

Data from the Medical Birth Registry of Norway show that, even though the authorities have decided that maternity care in Norway should be decentralised, the number of births in FMUs and the numbers of FMUs have declined over the past decades [14]. There are no obvious reasons for these reductions, but several potential explanations may be operating together. One of these explanations could be changes in demography and population in the uptake areas for the FMUs, which may have led to fewer women of reproductive age living in these areas. Five of the six FMUs are located in the Northern region, and the largest percentage decrease in number of births through the decade has been in this region. The reduction for Norway was 14 %, and 21 % for the Northern region [14].

Another explanation could be the trend toward the medicalisation of childbirth, leading to an increase in the number of women diagnosed as high-risk and therefore a reduction in the population that qualifies to give birth in an FMU [31]. Also, the financial organization of health care in Norway leads to FMUs not generating enough income to cover the costs of staffing as normal labour and birth triggers less refunds than complications and interventions do. The preceding factors may have reduced the population that qualifies to give birth in an FMU over time [31].

Strengths and weaknesses of the study.

One strength of the study is that the data represent responders from virtually all FMUs during the decade, thus complementing national surveys on women's perceptions of maternity care [12]. The B3 survey contains several open-ended questions, all of which created the data for this study. The online qualitative survey is a flexible method that has the potential to capture a diversity of perspectives and experiences [32]. The fact that the response options were truly open-ended and without word limitations allowed for the participants to provide responses that were important to them and not predetermined by the researchers.

On the other hand, online survey studies may have some methodological limitations, such as self-selection bias and response bias [33], which may contribute to a sample of mostly women who are used to expressing themselves on social media. This may have excluded some aspects of care that are important for specific or marginalised groups. Nevertheless, the B3-survey sample has been shown to be fairly representative [20,21].

Another possible limitation is the time between the women experienced their birth and answered this survey. A prolonged period could lead to a recall bias, however, it can also lead to more reliable measure of overall birth experience as women have been able to integrate all aspects of the process [34].

Conclusion

This study adds valuable knowledge regarding what women describe as important aspects of care in FMUs. It seems that these aspects are comparable to what is important to women in other birth settings. Women experience maternity services in these units as peaceful, flexible, and family-friendly. However, some women perceive the FMU as a vulnerable service, mainly due to lack of midwives on call and uncertainty around temporary closure of the FMUs. This finding points to the importance of staffing of birth facilities with enough midwives to ensure that all women giving birth have available midwifery care at all times, which is recommended in the National guidelines for care during labour and birth. Predictability around place of birth for the upcoming birth is crucial for every woman and her family. These goals might be achieved by a stable, continuous maternity service in all geographical areas of the country.

Declaration of Competing Interest

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.

Acknowledgements

This paper derives from the Babies Born Better project, which was developed as part of the EU-funded COST Action IS0907 and continued in the EU COST Action IS1405: 'Building Intrapartum Research Through Health (BIRTH)—an interdisciplinary whole system approach to understanding and contextualising physiological labour and birth' supported by the COST (European Cooperation in Science and Technology) Programme. The work of all those who contributed to developing and running the Babies Born Better survey is acknowledged. Details of the project, the Steering Group and the Country Coordinators can be found here: http://www.babiesbornbetter.org/about/

Funding

This research did not receive any specific grant from funding agencies in the public, commercial or not-for-profit sectors.

Appendix A. Supplementary material

Supplementary data to this article can be found online at https://doi.org/10.1016/j.srhc.2023.100857.

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