

## Emotional well-being and the importance for women with fear of birth to have a known midwife at birth

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### Abstract

**Background:** Previous research has shown that women with fear of childbirth often suffer from other mental health issues. Continuity of caregiver through a known midwife is best practice for pregnant women, and women with childbirth related fear value continuity of care. In Sweden the maternity care is fragmented and women's opinion remains under-investigated.

**Objective:** The aim of this study was to investigate emotional well-being and the importance of having a known midwife during birth in women referred to counseling for childbirth related fear.

**Design:** Cross sectional study

**Setting:** 3 Swedish hospitals providing counseling for childbirth related fear.

**Participants:** Women who were referred for counseling due to fear of childbirth.

**Measures:** The importance of having a known midwife at birth, background factors, emotional well-being and attitudes.

**Results:** 77 women referred to counseling consented to participate. The majority of women were likely to present with previous or ongoing emotional distress, high levels of anxiety or depressive symptoms, low Sense of Coherence and Major worries. For the majority of women (71%) it was important to have a known midwife at birth and most important for women with high levels of childbirth fear.

**Conclusion:** This study highlights that women referred to counseling due to fear of childbirth might need additional support to cope with their emotional distress. The results also indicated that having a known midwife at birth was important to these women, especially for women with higher fear. The option of having a known midwife during birth is rarely accomplished in Sweden due to the fragmentation of care.

**Keywords :** Continuity models of care, counseling, Emotional Well-being, Fear of childbirth

### Introduction

Fear of childbirth has been a focus of research the last decades and a recent systematic review of 29 studies with 853988 women presents an overall prevalence of tocopobia (severe fear of birth) of 14% [1]. Fear of childbirth has been associated with anxiety and depression [2-4 ] as well as with psychiatric care [5].

Within the current maternity services in Sweden women with childbirth fear are offered counseling with specially trained midwives who usually meet the women at two to four occasions. Fearful women are usually referred to a counseling team by their antenatal midwife [6].

The goal of the counseling is to reduce the fear, to reduce unnecessary caesarean sections, and to make the birth experience as positive as possible, regardless of the mode of birth. Through support, information and preparation for childbirth, the woman may be strengthened in her belief in herself and her ability to give birth. When needed there is collaboration with obstetricians, psychologists, social workers and sometimes psychiatrists [7]. The counseling is initially characterized by an informal conversation where the women talk about their thoughts and feelings about being pregnant and the forthcoming birth. Among parous women previous birth experiences are central to the dialogue.



The support and treatment for women with fear of childbirth is organized in various ways at each health service and the effect of this treatment has not been fully investigated [6]. Women are often satisfied with the counseling, but the counseling does not seem to affect the rates of caesarean section [8-9].

Continuity with the same midwife during all episodes of care from pregnancy to labour and birth, and the postpartum period is rare in Sweden. In some parts of the Western world such continuity is provided by teams of midwives or in caseload models. A recent Cochrane review comprising 15 studies with more than 17 000 women, with and without increased risk for complications, concluded that most women should be offered midwife-led continuity models of care. The result of the review clearly demonstrated a lower use of interventions, a higher rate of spontaneous vaginal births and higher maternal satisfaction [10]. Midwifery continuity of care usually involves some of the following elements: engagement and relationship building with women and their partners, an individualized care based on women's needs, provision of individual support, and a plan for handover when the midwife is not available [11].

As continuity could be a way to build meaningful relationships where midwives can listen and act upon women's wishes and offer individualized care [12], the counseling midwife have a great opportunity to identify women's emotional needs. Women in Sweden have shown a great interest in continuity models of midwifery care—more than half of pregnant women in national [13] and regional [14] studies wished to a known midwife during birth. Importantly, women with childbirth fear showed a higher interest (64% interested in having a known midwife at birth) compared to women without fear (53%) [13-14]. A recent case-control pilot study of 14 women with severe fear of birth and 28 women without fear evaluated the significance of continuous support by a specially assigned midwife concluded that fearful women might benefit from continuous support [15]. Similarly, a qualitative interview study with 13 women with fear of birth who received team-midwifery care showed the importance of the midwife when it comes to reducing fear of birth. Some women reported the importance of a *known* midwife who knew them and supervised them [16].

Previous research has shown that women with fear of childbirth often suffer from other mental health issues and that continuity of caregiver is beneficial and valued by women with fear of birth. The aim of this pilot study is to investigate emotional wellbeing and the importance of having a known midwife during birth in women referred to counselling for childbirth related fear.

## Material and Methods

### Design

A cross-sectional study of women referred to midwife-led counselling due to fear of childbirth.

### Setting

Three hospital clinics where midwife-led counseling was offered after a referral process from the antenatal midwife. The annual birth rates were 1525 (hospital A), 1329 (hospital B) and 1564 (hospital C), respectively.

Two hospitals (A+B) were situated in the northern part of Sweden, with rural areas and a larger city, and one hospital C was in the middle-south part of Sweden, in an area with a great proportion of foreign-born woman in need of translator services during health care visits. In hospitals A and B five midwives offered counseling for childbirth fear and in hospital C three midwives worked with counseling for childbirth fear. The midwives also worked with rotation between the labour ward and the postnatal ward. All midwives working with counseling had a long working experience which also means that they often were team-coordinators at the labour wards, limiting their availability to provide continuity of care to fearful women.

### Participants

Women referred to midwife-led counseling due to fear of childbirth.

### Procedure

The midwives working with counseling due to childbirth fear reported names and contact details to the research group about all referrals with an expected due date between September 1 2016 and May 31, 2017. When the names and contact details of the women reached the research group a letter of information about the study and a questionnaire together with a pre-paid envelope were sent to the referred women.

### Data collection

Data for this study was collected by a questionnaire. The questionnaire was administered to the women shortly after the research team received the contact details. The questionnaire contained questions about socio-demographic and obstetric background, health related questions, feelings about the approaching birth, preferred mode of birth and some previously validated instruments.

The outcome variable for the present study was women's interest in having a known midwife at birth. The question were assessed on a 4-point Likert scale with the alternatives "Very important"(1), "Important"(2), "Less important"(3), and "Not important at all"(4). In the analysis the answers were dichotomized into "Important"(1+2) versus "Not important"(3+4).

### Validated instruments

The level of childbirth fear was assessed using FOBS-The Fear of Birth Scale [17-18]. FOBS consists of two 100 mm VAS-scales that are summed and averaged to get a score. When filling out the scale study participants are asked to respond to the question "How do you feel right now about the approaching birth?" and are instructed to place a mark on the two scales which have the anchor words calm/worried and no fear/strong fear [17]. The FOBS has been validated in a large Australian study [19], in a think aloud study [20] and in several prospective studies [21-22]. It has been used as a screening tool preceding a randomized controlled trial [23]. The cut-off point of 60 or more is used to categorize women into having childbirth fear or not.

The Hospital Anxiety and Depression Scale [24] includes 14 questions and was used to assess anxiety and depressive symptoms. The cut-off points of 8 or more was adapted to categorize women into having anxiety or depressive symptoms.

The 10-item Edinburgh Postnatal Depression Scale [25] was used to further explore women's emotional well-being and the cut-off point or 13 or more was used as suggested in a Swedish validation study of pregnant women [26].

The Cambridge Worry Scale [27] was used to explore the degree and content of worry with 16 items covering worries for housing, finances, law, relationships, health work related issues and worries related to pregnancy and birth. The scale can be used as a total score or as suggested by Green et al [27] categorized into minor (0-3) or major (4-5) worries item wise.

Finally, women were asked to complete the 13-item Sense of Coherence scale (SOC) [28]. Sense of coherence (SOC) is a major construct in the salutogenic theory and mirrors the degree to which people view the world and face the stressors that life brings. People with high SOC view the world as manageable, comprehensible and meaningful. The items were summed to produce a total score and were thereafter divided into low (-60), moderate (61-75) or high (76-) SOC.

### Analysis

Descriptive statistics were used to present the data. Odds Ratios with a 95% confidence interval was calculated between women who assessed continuity care from a known midwife as important or not for the explanatory variables. The study was approved by the regional ethics committee Dnr 2016/0588.

### Results

The information about the study and the invitation to participate was sent to 150 women who were referred to counseling with a midwife. Of those 77 (51%) women consented to participate and returned a completed first questionnaire. The questionnaire was sent out as soon as the research team got the contact details, which meant that the mean gestational week for distributing the questionnaire was 29 weeks (Range 14-38) and the mean gestational week when it was returned was 32 (Range 23-39).

The mean age for the women who consented to participate was 32 years (Range 22-44). The majority were born in Sweden, cohabiting with a partner and had a university level of education (Table 1). Few women (17%) were pregnant for the first time and between 26-30% had a history of previous miscarriage or abortion. Having previous children was reported by 57 women (74%) and four women reported that the current pregnancy was due to assisted conception. Of the 57 women who had a previous baby, 31 had at least one vaginal birth, 12 at least one previous instrumental vaginal birth, three a previous elective caesarean section, of which two were due to maternal request. In all, there were 16 previous emergency caesarean sections reported. A previous negative birth experience was reported by 33 women (58%).

In addition to their obstetric history many women reported previous depressive symptoms or anxiety and the proportion of any previous psychiatric history was 48%. Many women had seen health professionals for help with their emotional problems. Getting counseling or meeting a social worker was frequently reported, but only a few women had seen a psychiatrist due to their problems (Table 1).

<b>Table 1. Study sample</b>	
	<b>n=77</b>
	<b>n (%)</b>
<b>Age groups</b>	
<32	34 (44.2)
32 or more	43 (55.8)
<b>Country of birth</b>	
Sweden	70 (90.9)
Other country	7 (9.1)
<b>Civil status</b>	
Living with partner	76 (98.7)
Not living with partner	1 (1.3)
<b>Level of education</b>	
Compulsory school/high school	30 (38.9)
University education	47 (61.1)
<b>Obstetric history</b>	
Pregnant for the first time	13 (17.1)
Previous miscarriage	23 (30.3)
Previous abortion	20 (26.3)
Given birth previously	57 (74.9)
Assisted conception	4 (5.3)
<b>Any previous mode of birth (multiparas, n=57)</b>	
Normal vaginal	31 (54.3)
Instrumental vaginal	12 (21.0)
Elective caesarean (medical reason)	1 (1.8)
Maternal request caesarean	2 (3.5)
Emergency caesarean section	16 (28.0)
<b>Previous birth experience</b>	
Positive and mixed feelings	23 (41.0)
Negative/very negative	33 (58.9)
<b>Previous depressive symptoms</b>	
Yes	25 (32.9)
No	51 (67.1)
<b>Previous anxiety</b>	
Yes	29 (37.7)
No	48 (62.3)
<b>Previous psychiatric history</b>	
Yes	37 (48.1)
No	40 (51.9)
<b>Previous contacts due to mental health issues</b>	
Psychologist	33 (43.)
Psychiatrist	10 (13.2)
Social worker	43 (56.6)
Medication	20 (26.7)
Counseling	53 (69.7)

**Table 2:** shows women's attitudes and feelings. For the majority of women (71%) it was important to have a known midwife at birth. The mean FOBS score was 72.71. The majority of women scored 60 or more on FOBS-The Fear of Birth Scale (77.9%), indicating high fear of birth. The majority had mixed feelings about the approaching birth and there were more women rating their feelings as negative rather than positive when thinking about the forthcoming birth.

The majority preferred to have a vaginal birth, but 26% preferred a caesarean section. More than half of the women scored above 8 on the HADS-Anxiety and one in three women scored high on HADS-Depression. This was further confirmed using the EPDS where 27% showed depressive symptoms. The Sense of Coherence scale indicated that 40% women who suffered from fear of birth had a low SOC.

<b>Table 2. Emotional well-being and attitudes</b>	
	<b>n=77</b>
	<b>n (%)</b>
<b>Importance of a known midwife at birth</b>	
Important/very important	55 (71.4)
Less important/unimportant	22 (28.6)
<b>FOBS mean (SD)</b>	
FOBS <60	17 (22.1)
FOBS >60	60 (77.9)
<b>Feelings about the approaching birth</b>	
Positive feelings	3 (3.9)
Mixed feelings	51 (66.2)
Negative feelings	23 (30.0)
<b>Preferred mode of birth</b>	
Vaginal	47 (61.0)
Caesarean section	20 (26.0)
Can't decide	6 (7.8)
<b>HADS anxiety (8 or more)</b>	
Yes	41 (53.2)
No	36 (46.9)
<b>HADS depression (8 or more)</b>	
Yes	23 (29.9)
No	54 (70.1)
<b>EPDS</b>	
<13	56 (72.7)
13 or more	21 (27.3)
<b>Sense of coherence</b>	
Low	31 (40.3)
Moderate	26 (33.8)
High	20 (26.0)

In table 3 the rank order of the items included in the Cambridge Worry Scale is shown. The three variables that produced the highest percentages of major worries (4 or 5 on the Likert scale) were 'Giving birth' (76,6%), that 'Something being wrong with the baby' (36,4%) and to be 'Admitted to hospital' (24,7%).

**Table 3. The rank order of items included in the Cambridge Worry Scale**

	<b>Mean (SD)</b>	<b>Major worry (%)</b>
Giving birth	4.08 (0.993)	76.6
Something being wrong with the baby	2.66 (1.619)	36.4
Be admitted to hospital	1.91 (1.808)	24.7
Own health	1.81 (1.520)	14.3
Risk of miscarriage	1.51 (1.570)	13
Vaginal examination	1.39 (1.648)	15.6
Financial problems	1.32 (1.360)	10.4
The health of someone close	1.23 (1.538)	14.3
Taking care of the baby	1.18 (1.430)	11.7
Work-related issues	1.16 (1.487)	10.4
Relationship with partner	0.47 (0.921)	1.3
Being away from work	0.47 (1.071)	2.6
Partner attending the birth	0.39 81.053)	5.2
Housing	0.34 (0.968)	2.6
Family relationship	0.31 (0.674)	0
Law problems	0.09 (0.492)	1.3

When comparing women who rated it 'Important' to have a known midwife at birth and women who rated it less important, there were no statistically significant differences in socio-demographic, obstetric background, emotional well-being or attitudes (not in table). Only scoring 60 or more on the FOBS was statistically significant for rating a known midwife at birth as 'Important' (OR 5.7, 95% CI 1.8-18.1, p=0.003).

## Discussion

A major finding of this pilot study was that women referred to counseling for fear of childbirth had a high degree of concomitant emotional distress problems. Another important finding was that the majority of women referred for counselling for fear of childbirth rated having a known midwife at birth as important to them and this was most significant for the women who scored 60 or above on the FOBS-the Fear of Birth Scale. This is the first study investigating the importance of continuity of midwifery care to women referred for childbirth fear counselling.

The great majority (71%) of the approached women rated it important to have a known midwife during birth. This result is higher than what has previously been reported in Sweden where around 50% of pregnant women in national [13] and regional [14] studies wished to have continuity with the same midwife. The benefits of continuity of midwifery care to pregnant women is well known [10] yet remains an option that is not universally available to women. Indeed, continuity of midwifery care is rarely available to any pregnant women in Sweden including fearful women. Subsequently very little is known about the impact of having access to a known midwife through a continuity of care model may have for women with fear of childbirth.



It could potentially be a better approach than the current widespread practice of specialized counselling - the efficacy of which is poorly understood [9]. A previous study of women who received care at a Swedish birth center which provided a high degree of continuity, were less likely to have had counseling due to childbirth fear [29]. We don't know, however, if women who chose that specific model of care were less fearful or if the likelihood of having a continuity of caregiver decreased their fear of birth [30].

The present study showed that continuity of care was more important to women who scored higher on the FOBS-Fear Of Birth Scale. A high FOBS score was the only variable that could explain the importance to women of having a known midwife at birth. High levels of childbirth fear have previously been a characteristic of women who preferred continuity of a known midwife [14]. All women in this study reported fear of childbirth to their antenatal midwife who further referred them to counselling, but 22% did not report major fear in the questionnaire. It might be that some aspects of fear were solved during the earlier parts of pregnancy or had been taken care of by the antenatal midwife. In the present study, the mean gestational week for completing the questionnaire was 32 weeks and the mean score of FOBS was 72.7. Generally, women's fear of birth decreases over time [18]. A previous population based study from a similar region as the present study showed that childbirth fear, measured with FOBS, was higher in mid pregnancy than in late pregnancy (mid pregnancy mean 42.76, n=1206 vs mean 36.65 in late pregnancy n=1003). In the above mentioned regional study women who received counseling for childbirth fear reported a fairly similar FOBS- score with 70.95 in late pregnancy (gestational week 32-34), [18]. Continuity of care, such as caseload midwifery is recommended in a large Cochrane review for all women [10], but it might be that women who have an enduring fear may in fact really benefit from a known midwife if that is available.

In the present pilot study more than half of the women referred to counseling scored above the cutoff point of 8 on the HADS-anxiety score. During pregnancy the prevalence of anxiety has been estimated to around 16% in a community sample of Swedish-speaking women [3]. It is well known that anxiety can have a negative impact on the relationship between mother and the unborn baby [31]. Anxiety has also been associated with a medical complication, low birth weight and low Apgar Score [32]. Depressive symptoms was close to 30% in the present study, which is higher than previously reported. Recurrent to sustained depressive symptoms has been reported in 3% of a national sample of 2430 Swedish speaking women recruited more than 15 years ago [33]. It is, however, important to bear in mind that that women in the present study are not representative for the childbearing population as they were referred to counseling for childbirth fear.

Anxiety during pregnancy is also closely related to postnatal depression. A previous history of anxiety has been shown to be greater risk factor for postnatal anxiety as well as depressive disorders [34]. In addition, fear of childbirth has been shown to predict postpartum depression, in a large Finnish population based case-control study of more than 500 000 births [4]. The co-morbidity between anxiety, depression and childbirth fear is obvious, yet not well studied. However, co morbidity between anxiety and depression during pregnancy has been shown to be 6-9% in a recent meta-analysis of 66 studies with a total of 162120 women from 30 countries [35].

Similarly, a Swedish population based study of 1734 women found major depression in 3.3% and minor depression in 6.9% of women pregnant in the second trimester. Anxiety disorders were present in 102 (6.6%) of the women. In that study childbirth fear was significantly more common in women with psychiatric diagnosis (44% vs 22% in women without psychiatric diagnosis), [36].

The results of this present study also revealed that women who were referred to counseling had a background of emotional distress mirrored as major worries. When compared to a national sub-sample of Swedish-speaking women recruited in 1999-2000 who reported childbirth fear, giving birth and a worry that something would be wrong with the baby were highest rank order in both samples. The only statistically significant difference was a higher proportion of major worries regarding having a miscarriage. This could possibly be explained by the time point of pregnancy, as the national sample was recruited in early pregnancy (mean gestational week 15), where the risk of miscarriage is more common compared to late pregnancy [37].

Low sense of coherence was also more common in this pilot study with nearly 40% compared to a representative national sample of 3048 pregnant women where 22% reported low sense of coherence [38]. In the national sample low sense of coherence was associated with high parental stress. Women with childbirth fear and low SOC must be taken care of sufficiently in order to reduce their stress after birth as it is well known that parental stress is associated with psychological problems [39-40] as well as difficulties in the parenting role [41]. A trustful midwife-woman relationship with continuity might help women to increase their sense of coherence and thereby decreasing parental stress. It seems that the women in the present study have a significant need for highly supportive pregnancy care and could potentially benefit from the relationship that is established with a model of care that facilitates the continuity of a known midwife.

This study is compromised by its observational design and the fairly small sample size. When the study was designed the participating clinics were contacted and reported that they each had around 100 referrals from the antenatal clinic. During the study period the number of births increased in one of the hospitals due to a closure of a midwife-led clinic which affected the availability as well as the numbers of referral.

The response rates for the three different hospitals (from 40-67%) might be due to the different ways of approaching women. In two hospitals the midwives were not comfortable with giving out the contact details directly to the research group, despite the fact that the study had undergone ethical review. In one hospital (B), this approach increased the response rate, while in the other hospital (C) only 40% consented to participate. Another explanation for the low participation rate in hospital C was the large proportion of non-Swedish speaking women referred, the late referral (mainly in late pregnancy) and change of staff during the study period. Late referral was also a problem with timing of the questionnaires. Sometimes the women had already given birth when they got the invitation.

## Conclusion

This pilot study highlights that women referred to counseling due to fear of childbirth might need additional support to cope with their emotional distress. The results also indicated that having a known midwife at birth was important to these women.

## Implications for practice

This study highlights that while fearful pregnant women in Sweden have high needs for emotional support and rate the importance of knowing their midwife as important there is currently little chance receiving care under a best practice midwifery continuity model.



Further research is needed to explore the impact of a known midwife on fearful women's emotional and physical outcomes during pregnancy, birth and the post-partum period.

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