
ORIGINAL ARTICLE

An evaluation of midwives' counseling of pregnant women in fear of childbirth

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Background. The aim of this clinical evaluation was to study birth experience, post-traumatic stress symptoms, and satisfaction with care in new mothers who had consulted specially trained midwives because of a fear of childbirth during pregnancy.

Methods. Sixty-two women were eligible for the study, of whom 53 (85%) participated at 1–14 months postpartum. For comparison, a group of 53 women were matched for parity and mode of delivery. All 106 women completed two self-rating scales, the Wijma Delivery Experience Questionnaire (W-DEQ) and the Impact of Event Scale (IES), and answered several open questions about their opinion of the antenatal preparation given.

Results. Those women who had been treated for fear of childbirth reported a rather more frightening experience of delivery, and more frequent symptoms of post-traumatic stress related to delivery than did the women in the comparison group. Nevertheless, satisfaction with care was manifest in the study group.

Conclusions. Women who seek help for fear of childbirth are a vulnerable group. Because the counseling received by the women in this study did not accord them the same positive experience of childbirth as the average parturient at the unit, more effective forms of treatment may be necessary. However, as most of the women were very satisfied with their care and with the outcome, one may assume that the care given had improved their situation to some degree.

Key words: pregnancy; fear of childbirth; post-traumatic stress; counseling; cesarean section

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Fear of childbirth during pregnancy is common. Intense fear of the impending delivery affects the daily life of about 6% of pregnant women (1). Women may for instance fear pain, vaginal rupture, losing one's baby or one's own life, losing self-control and being left without assistance during labor (2, 3). Fear of vaginal delivery is one reason why an increasing number of Swedish women ask for a cesarean section (CS) (4). Personality traits such as being prone to anxiety and depression, and also a lack of support and conjugal dissatisfaction,

are more common in women who fear childbirth (5). In a Swedish study from 1998, women reporting serious fear of childbirth at 32 weeks' gestation were delivered by emergency CS two to three times more often than women without fear of childbirth (6). Women whose fear of childbirth was more intense more frequently reported a negative/frightening delivery experience and more post-traumatic stress symptoms after an emergency CS than women with less fear who had also undergone emergency CS (7).

Thus, pregnant women with an intense fear of childbirth experience mental suffering and need help and support. They may also be prone to having a complicated delivery and subsequently suffering post-traumatic stress reactions. Treatment of fear of childbirth is described elsewhere

Abbreviations:

CS: cesarean section; SG: study group; CG: comparison group; W-DEQ: Wijma Delivery Expectancy/Experience Questionnaire; IES: Impact of Event Scale; PTSD: post-traumatic stress disorder; OR: odds ratio; CI: confidence interval.

(2, 8–10), but the results need closer investigation. According to Sjögren (8), 72 women treated for fear of childbirth by a form of psychosomatic support were as pleased with their delivery as 72 women who had not expressed such fear. Antenatal clinics do not always employ a psychotherapist with the skills needed for treating these women. Moreover, some pregnant women have no wish to see a psychotherapist or cannot collaborate in psychotherapy. However, many hospitals in Sweden have recently instituted 'fear of childbirth teams' which include experienced midwives and obstetricians who receive supervision/consultation by, for instance, a psychologist, social worker or psychiatrist familiar with the field of obstetrics. At out hospital, a team of delivery ward midwives has been counseling pregnant women since 1997.

The aim of this clinical evaluation was to answer the following questions:

- 1) Was the delivery experience of the women counseled by midwives for fear of childbirth as good as or more negative/frightening than the experience of the average parturient?
- 2) Did the women counseled by midwives for a fear of childbirth report the same or a higher prevalence and frequency of symptoms of post-traumatic stress after childbirth compared with the average parturient?
- 3) Were the women who asked for help because of their fear of childbirth satisfied with the care provided?
- 4) Was the CS rate of the women counseled by midwives for fear of childbirth similar to or higher than the overall CS rate at our hospital?

Materials and methods

The fear of childbirth team

The team consists of eight midwives who work on the delivery ward and one specialist in obstetrics and gynecology who has also undergone basic training in psychotherapy. This consultant fulfills a dual role of supervisor and team obstetrician. The women attend their usual antenatal clinic for pregnancy check-ups. Women with psychological difficulties other than fear of childbirth are referred for suitable care, for instance a child welfare psychologist at the local antenatal clinic.

The team of midwives have been trained in counseling. They encourage the women to talk about the nature of their fear, and about previous traumatic childbirth experiences. When the woman has gained enough confidence to be able to imagine the impending delivery in a more positive

manner, an individual birth plan is made by the woman/couple, by the midwife, or by the doctor, depending on the obstetrical situation and the woman's needs. The parturients are prepared, during counseling, for delivery by any midwife on duty, and most accept this routine. On occasion, CS is recommended, for psychological reasons. In selected cases the woman is offered a 'planned vaginal delivery' (induction of labor at about term) as an alternative to CS. Her named midwife may then deliver the woman. The delivery ward staff strive to follow birth plans, but the women are prepared to accept alterations to the plan if complications should occur.

Women delivered at Helsingborg Hospital in 1999 consulted their fear of childbirth team midwife 1–14 (mean 4) times during pregnancy, and once after the birth (in a few cases 2 or 3 times). One-third of them also consulted the team obstetrician or, in a few cases, another obstetrician. They were referred to the team at 6–37 (mean 26) weeks' gestation and came for their first visit at 8–37 (mean 28) weeks' gestation.

The goal of the fear of childbirth team is to help pregnant women (and couples) to enjoy as rewarding a childbirth experience as possible, irrespective of mode of delivery.

Subjects

During 1999, a total of 66 Swedish-speaking women (3.4% of the 1.948 women who gave birth at the department) consulted midwives in the fear of childbirth team. Thirty (46%) of them asked for a CS even though they had no obstetrical indications warranting abdominal delivery. Four women could not participate in this study, 2 because of another ongoing interview study at the Department, one because of psychiatric illness and one because of an ongoing child custody investigation. Thus, 62 were eligible for the study, of whom 30% were nulliparous compared with 43% of the whole parturient population. Fifty-three women (85%) returned the questionnaires 1–14 months postpartum. The comparison group (CG) women were matched for parity and mode of delivery (vaginal delivery, emergency CS, or elective CS). Two CG women were chosen from the delivery ward register as soon as possible after each study group (SG) woman. Ninety-seven (78%) completed the questionnaire. Where both comparison group women answered the questionnaires, the first woman was accepted. The median age of the women in both groups was 31 years (and 30 years in the entire parturient population). Of the 53 women in the study group, 20 asked for a CS when they first contacted the fear of childbirth team.

Methods of investigation

Obstetrical variables were identified from the hospital records.

The questionnaires consisted of two self-rating scales and four open questions about satisfaction with preparations for birth and suggestions for better care. Two authors (A.P. and L.K.), who are not members of the fear of childbirth team, signed the letters of invitation to the study.

The Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ) (11) measures the degree of fear of childbirth/frightening or negative experience of delivery. Version W-DEQ B 20, used after vaginal or cesarean childbirth, has 20 items each with a scoring range of 0–5. The 2-item version correlates 0.96 with the complete version of 33 items (7). A W-DEQ score of >100 on the 33-item version is regarded as indicating a clinical problem, i.e. a very frightening delivery experience (K. Wijma, personal communication). A score of 60 on the W-DEQ B 20 corresponds to a score of 100 on the 33-item version. A score of 70 on the W-DEQ B 20 corresponds to a score of 115 on the 33-item version.

The Impact of Event Scale (IES) (12) records the presence and frequency of post-traumatic stress symptoms following any trauma, in this study in relation to childbirth. The scale has 15 items, each with a scoring range of 0–5. A total score of 0–19 indicates a normal or mild reaction, 20–30 a moderate reaction, 30–40, 41–50, and 51–60 a pathological post-traumatic stress reaction of increasing severity, or a probable post-traumatic stress disorder (PTSD) (13).

A statistical analysis of the results of the self-rating was performed by calculating the odds ratio (OR) with 95% confidence intervals (CI). The difference in mean scores on the W-DEQ 20 was also analyzed applying the Student's *t*-test. Given a power of 80%, a clinically significant difference on the W-DEQ scale of at least 10, and a standard deviation of less than +20, we estimated the minimum sample size to be about 60 in each group (14). Thus, the number of women who consulted the fear of childbirth team during 1999 ($n = 66$) appeared to be adequate as a basis for this study. The difference in median scores on the IES was analyzed by means of the Mann–Whitney *U*-test. The difference in number of women with expectations fulfilled was analyzed using Fisher's Exact Test.

The following open-ended questions were asked:

- 1) What did you expect from the fear of childbirth team midwife or of the birth preparation at the antenatal clinic?

- 2) Were your expectations fulfilled?
- 3) If you could give us professionals some advice, what would you like to say? What is important for us to remember?
- 4) I would have wished that the following had been different:...

The women's answers were analyzed to discern themes and patterns (15). The detailed results of these analyzes will be published elsewhere. A summary of the results, as well as three case histories, are given in this paper. The difference in fulfillment of expectations between the two groups was analyzed by means of Fisher's exact test. Alterations were made in order to ensure confidentiality.

The study was approved by the regional committee for ethics in science.

Results*Childbirth experience*

The degree of negative/frightening experience of birth (W-DEQ score) was 44.3 + 20.5 in the study group (SG) and 29.7 + 17.4 in the comparison group (CG). The mean difference was 14.6 (95% CI 9.4–19.7, $p < 0.0001$). (Fig. 1)

A W-DEQ 20 score of >60 is assumed to indicate a clinical problem. The OR for the SG women vis-à-vis the CG was 1.7 (95% CI 0.5–5.5). A W-DEQ 20 score of >70 probably indicates a very serious problem. The OR was 6.6 (95% CI 1.7–26.1).

Primiparous women tended to experience the birth less positively. The interval between delivery and completion of the questionnaire did not influence the results. The ranges of W-DEQ scores in the small groups of different delivery modes are given in Table I.

Post-traumatic stress

The median degree and range of post-traumatic stress (IES score) was 11.5 (0–60) in the SG and 9.0 (0–42) in the CG ($p = 0.058$) (Fig. 2).

Women with an IES score >30 might have PTSD after a recent childbirth. Ten women in the SG (19%) and one CG woman (2%) scored >30 on the IES (OR 12.1, 95% CI 2.2–66.6). The women with a possible PTSD had been delivered by emergency CS in 2 cases, elective CS in 1 case, instrumental vaginal delivery in 2 cases, and non-instrumental vaginal delivery in 5 cases (SG) and non-instrumental vaginal delivery in the one case in the CG.

Neither parity nor interval between delivery and

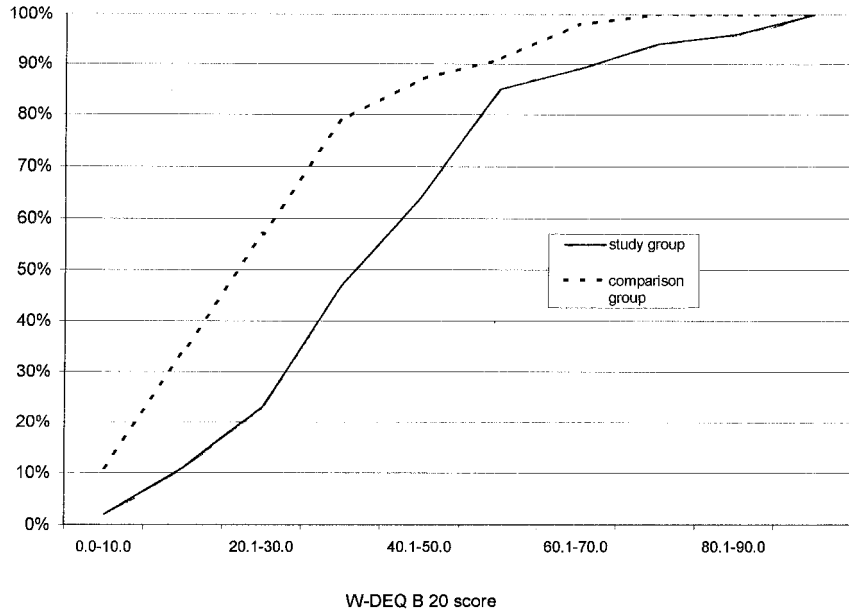


Fig. 1. Cumulative Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ) B 20 scores (degree of negative delivery experience) in women who had consulted the fear of childbirth team ($n = 53$) and in their counterparts for comparison ($n = 53$).

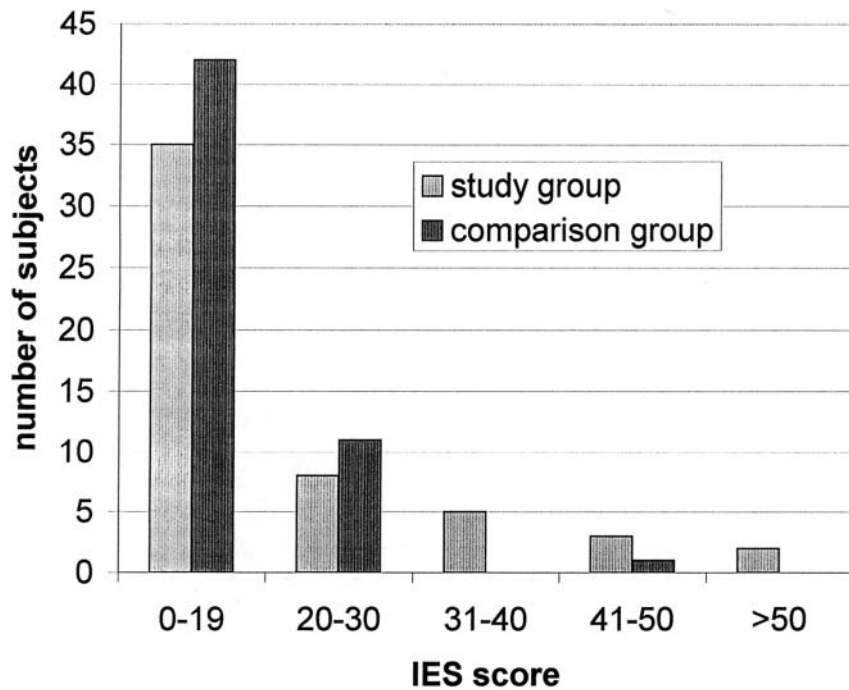


Fig. 2. Impact of Event Scale (IES) scores (degree of post-traumatic stress) in women who had consulted the fear of childbirth team ($n = 53$) and their counterparts for comparison ($n = 53$).

completion of the questionnaire affected the results.

Satisfaction with care

Most of the women were satisfied with the antenatal preparations for birth and also seemed satisfied with their care during and after delivery.

Expectations. The women in both groups expected 'to be listened 'to and to' be taken seriously'. Neither quality nor quantity of information was mentioned. Expectations were fulfilled for 94% of the SG and 69% of the CG ($p < 0.001$). 'It surpassed my expectations. I got some different ideas..'

Advice. The women in both groups advised us

Table I. Mean Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ) scores and ranges (degree of negative delivery experience) after different modes of delivery

Mode of delivery	Study group (n=53)	Comparison group (n=53)
Emergency cesarean (n=6)	47.7 (17.2–100)	40.0 (19–66)
Elective cesarean (n=8)	39.5 (8–54.2)	32.0 (5–68)
Vaginal delivery (n=39)	44.7 (15–94)	27.5 (0–72)
7 of them instrumental vaginal (5 index women and 2 controls)	62.8 (40–94)	26 and 72

professionals to listen, to be sensitive and affirmative. Several women in the SG emphasized that the staff on duty, during their delivery ought to adhere to the plan and stipulations.

Wishes. The women in the SG had few suggestions for better antenatal care. Rather, they took the opportunity to say thank you. 'You took care of me in an unbelievable way and I will remember it all my life.' Also the CG women appeared pleased with the care given. The most common wish from both groups: 'Spend more time with the patient!'

Case histories

Three women in the SG were dissatisfied with the care provided by the fear of childbirth team. Their histories are presented below, including information from the hospital records, and their results on the self-rating scales.

Case I (Annie, W-DEQ score 59, IES score 60).

'I don't think that I got any help with my problems at all...they should not treat young mothers and fathers like shit but show respect this concerns all doctors because we have feelings too.' Annie was a 20-year-old-woman with a history of a traumatic abortion and of mistrust in health care providers. She experienced vaginal birth after 34 weeks of pregnancy. Her baby was admitted to the neonatal unit.

Case II (Betty, W-DEQ score 100, IES score 60).

'The doctor on duty did not care at all about my birth plan. So I had a terrible delivery, for the second time...' Betty had previously undergone an emergency CS after 6 h of ineffective second stage labor. After the birth she developed a panic disorder with Agoraphobia. During the present pregnancy she felt much better. After counseling with a midwife and the team obstetrician she wanted a vaginal delivery, but with a guarantee that a CS

would be performed earlier rather than later if she needed it. Her plan was made accordingly. Betty went into spontaneous labor at term and was soon fully dilated. Three hours later the fetus had failed to descend the birth channel, and Betty began to panic. The obstetrician on duty asked her to try for another hour of second stage labor before he finally decided on a cesarean.

Case III (Cindy, W-DEQ score 8, IES score 8). 'They should not try to persuade anyone to have a vaginal delivery.'

Cindy was a nulliparous woman in her thirties. She had suffered for many years from a breathing disorder. Extensive investigations had not revealed asthma or any anatomical defects. Cindy feared physical and mental strain, but had managed a normal social life, although somewhat restricted. She was absolutely convinced that she had to have a CS, for health reasons. Her obstetrician referred her to a fear of childbirth team midwife in the hope she would change her decision. However, Cindy was not motivated, and her doctor ultimately agreed to perform a CS. Cindy's feelings about the birth were positive.

Cesarean section rate

Six SG women (n=53) underwent emergency CS (5 on obstetrical and 1 on a psychosocial indication), and 8 others underwent elective CS (2 on obstetrical and 6 on psychosocial grounds). Of the 20 women who had asked for CS at the initial contact with the team, 11 underwent CS, 8 elective and 3 emergency operations. The CS rate was 26%, the overall CS rate at the Department (n=1948) during 1999 being 11%. The OR for CS in the SG was 2.63 (95% CI 1.12–6.17) compared with the whole parturient population. (Our CG, used for other comparisons, was matched for mode of delivery.)

Discussion

The women who consulted the fear of childbirth team reported overall satisfaction with the care given. However, a greater proportion of them reported a frightening delivery experience and more frequent post-traumatic stress symptoms than of a comparison group, who were similar in age, parity, and mode of delivery. The CS rate in the study group was high, compared with the whole parturient population at the Department.

Were the 53 women participating in the study group representative of women who are afraid of giving birth? As only 3% of our population consulted our team and the estimated rate of intense fear of childbirth is 6%, it would appear that many women had not expressed their fear or did not

want our help. Those who seek help may constitute a group more likely to experience a good delivery. The results of our study must also be regarded with caution because of the rather small number of women investigated.

Was the study design adequate? The best way of measuring the effectiveness of health care or treatment is by conducting a randomized controlled study. In our opinion, women who request help because of fear of childbirth cannot, for ethical reasons, be offered or denied care in random fashion. The fear of childbirth team had been operating for several years at the time of the study. We therefore chose to compare our study group with women who had not requested help for fear of childbirth, in order to see whether the study group had enjoyed a delivery experience as good as women from the general parturient population. Sjögren used the same method in a previous study (8).

Were the methods of investigation adequate? The self-rating scales were used in order to add an objective assessment to the evaluation. The W-DEQ has proved to be a helpful instrument as regards measuring a distressing, frightening delivery experience or 'fear after childbirth'. Satisfaction with delivery is another matter. A self-rating scale, which measures the degree of satisfaction with birth, could have been added. Evaluation of the clinical meaning of the W-DEQ scores is difficult. Perhaps the difference in mean scores between the SG and the CG is not particularly important from a clinical point of view? There was no significant difference between the proportion of women in the SG vs. the CG who reached a W-DEQ score of >60 , which is regarded as a clinical problem, but there was a difference in the proportion of women who had extremely high scores (>70), though the numbers were small.

For evaluation of post-traumatic stress, the IES is universally used and is considered very reliable when used at least 1 month after a traumatic event. Even so, a self-rating scale especially designed for the postpartum (16) period might have been more to the point.

The comparison of CS rate in the study group vs. the entire parturient population of the unit is inconclusive. The women who had consulted the fear of childbirth team were more often parous than the whole population. Parous women with a serious fear of childbirth have often previously undergone a complicated delivery (2, 17, 18). This may have affected the CS rate of the study group.

How can our results be interpreted? The W-DEQ questionnaire measures the degree of negative delivery experience. The mean W-DEQ scores in this study, may, be compared with those reported in an earlier, larger study (19) in which

women delivered by differing modes and not treated for fear of childbirth rated their experiences 1 month after delivery. The scores of our comparison group after vaginal as well as after elective cesarean delivery are almost identical with those in the previous investigation. Emergency CS and instrumental vaginal delivery were both associated with the most negative delivery experience in the previous investigation as well as in the present study, but the number of women so delivered was very small in this study.

Sjögren (8) found that women who had been treated for fear of childbirth at Karolinska Hospital were as pleased with their delivery as were the women in a comparison group. The women in our study group enjoyed not quite as good a delivery experience as their counterparts in the comparison group. What could explain this difference in our findings? We used the W-DEQ B 20 instrument, which measures the degree of negative/frightening delivery experiences, whereas Sjögren utilized a questionnaire designed especially for her study. Also, in the Sjögren study, treatment during pregnancy was not by midwives, but consisted of consultations with a gynecologist or with a social worker, both trained psychotherapists. Midwives who provide this kind of counseling may require more extensive training.

As many as 19% of the women treated for fear of childbirth reported considerable post-traumatic stress, or possibly PTSD. This was surprising, but the result may be reliable as the CG reported 2% of possible PTSD after childbirth, which is a rate to be expected, according to larger studies (16, 20). We had certainly hoped that the women who had consulted the fear of childbirth team would report fewer PTSD symptoms. A possible explanation may be that women who fear childbirth are sensitive to trauma, as they already suffer from a post-traumatic stress reaction to a previous childbirth and/or sexual abuse or domestic violence.

The CS rate was high, as might be expected. Previous studies of women who fear childbirth have shown that about half of the women who ask for a CS at the first consultation are ultimately delivered abdominally (2, 9, 21).

The SG women more often reported fulfilled expectations of their antenatal birth preparation than did their CG counterparts. An explanation for this may be that their expectations of help were counteracted by their fear, and that the fear of childbirth team midwives devoted much more time to these frightened women than did the midwives at the antenatal units for the average parturient. It is important to remember that satisfaction with care is not the same thing as effect of treatment. In a study of midwife-led debriefing after operative

delivery (22), no effect could be demonstrated on post-partum depression when using another well-known questionnaire, the Edinburgh Postnatal Depression Scale, yet the new mothers were satisfied with the sessions and reported that talking with the midwives had been helpful.

What then are the implications of our results for future research? Our evaluation is incomplete as we can not know what kind of delivery experience our study group women would have had if the fear of childbirth team had not existed. Measurement of the degree of fear of childbirth in all pregnant women within a catchment area may be a good basis for future prospective studies on the outcome for women who ask for vs. do not ask for counseling. Qualitative studies of women who ask for help, and their fears, have been performed (2, 23). Any future qualitative study should be linked to outcome in terms of delivery experience and post-traumatic stress. The issues of sexual abuse and domestic violence need also to be tackled. Randomized controlled studies can be performed at hospitals where there was no previous care for women who fear childbirth.

What are the implications of this study for clinical work. The patients appreciated the fear of childbirth team. It is impossible to say whether the goal of the team – to prepare the pregnant woman for the best possible delivery – was attained. We suspect that most of them experienced a better delivery than they feared they would have, even if it was a more frightening birth than for the average woman at our hospital. The high prevalence of probable PTSD is the most alarming result of this study. It calls for better follow-up after delivery, and for better selection of the cases suitable for midwife-led counseling. Saisto (10) points out the importance of finding the appropriate level of treatment.

Many women in both the study group and the comparison group wanted members of the staff to 'spend more time with the patient'. Earlier research (23) has illustrated the benefits of constant human support during labor regarding mother–infant interaction. Increased attendance in the delivery room is not easily arranged in times of staff shortage. It may be necessary to train labor ward assistants, 'doulas' to accompany women during childbirth.

The three case histories resemble other cases from our clinical experience. They are examples of failure regarding satisfaction with our form of counseling. Women who mistrust health care providers, who have suffered other trauma than delivery, and who have other complicating factors than fear of childbirth may need some other form of care than can be provided by a delivery ward mid-

wife (case history I). Women who give birth prematurely have special postpartum care needs as they have had insufficient time to prepare themselves for parenthood (24). The importance of adhering to the plan agreed upon by the future parents and the fear of childbirth team must be emphasized (case history II). The team must work in close collaboration with the rest of the Department, and never make promises that cannot be kept by every colleague. To try to persuade a woman who, after more than one counseling session, is firmly against vaginal delivery to change her mind is fruitless (case history III). It is another matter if the woman herself is hesitant and wants to try to prepare for a vaginal delivery, provided that she can still choose a CS when approaching term.

Women who seek help for fear of childbirth are a vulnerable group. There is no evidence for best treatment. A fear of childbirth team with specially trained midwives under supervision is one model that seems to suit many women who fear childbirth. Hopes for the resulting delivery experience should be realistic, as the delivery might be frightening even though better than expected, and a cesarean section might often prove necessary.

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