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Severe Fear of Childbirth: Its Features, Assesment, Prevalence, Determinants, Consequences and Possible Treatments

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Abstract

The review summarizes the relevant literature regarding fear of childbirth. A substantial number of (pregnant) women are more or less afraid of childbirth and a significant minority; report a severe fear of childbirth. The focus will be on definition problems, its features, prevalence, assessment methods and measurements, determinants, consequences and treatment methods. To date, there is still no consensus about the exact definition of severe fear of childbirth. However, there is agreement that women with severe fear of childbirth are concerned about the well-being of themselves and their infants, the labor process, and other personal and external conditions. In studies on prenatal anxiety and fear of childbirth, various kinds of diagnostic methods have been used in the past. Recently, there is a consensus to determine severe fear of childbirth by using the Wijma Delivery Expectancy/Experience Questionnaire. The aetiology of fear of childbirth is likely to be multi-factorial and may be related to more general anxiety proneness, as well as to very specific fears. Furthermore, pregnant women are influenced by the many healthcare professionals, such as midwives, nurses, gynaecologists, therapists and pregnancy counselors and the interactions with them. Trying to design a universal treatment for fear of childbirth will not likely be the ultimate solution; therefore, future research is needed into multidisciplinary treatment and predictors to establish which therapies at the individual level are most effective and appropriate.

Keywords: fear of childbirth, fear of delivery, fear of pregnancy, anxiety, W-DEQ, treatment

Introduction

Pregnancy and delivery are major and generally positive life experiences for most women. However, a substantial number of women are more or less afraid of childbirth (Areskog, Uddenberg, & Kjessle, 1981; Saisto & Halmesmäki, 2003; Zar, Wijma, & Wijma, 2001), and approximately 10% report a severe fear of childbirth (severe FOC) (Adams, Eberhard-Gran, & Eskild, 2012; Kjærgaard, Wijma, Dykes, & Alehagen, 2008; Nieminen, Stephansson, & Ryding, 2009; Nordeng, Hansen, Garthus-Niegel, & Eberhard-Gran, 2012; Spice, Jones, Hadjistavroulos, Kowalyk, & Stewart, 2009; Storksen, Eberhard-Gran, Garthus-Niegel, & Eskild, 2012). Some of these women actively avoid becoming pregnant, seek termination of pregnancy or try to induce a miscarriage (Zar, Wijma, & Wijma 2002). In addition, the condition of FOC may increase the risk of psychological problems (Melender & Sirkka, 1999; Ryding, 1993; Sjögren, 1997) and the risk of medically unnecessary caesarean section (Ryding, Wijma, Wijma, & Rydhström, 1998). To date, there is not yet consensus regarding the definition and diagnosis of severe FOC. There are strong associations with previous stressful obstetric experiences, specific personality characteristics, fear of pain, and fear of becoming a parent. Nevertheless, severe FOC often goes unrecognised. The present article focuses on the definition of FOC, its features, prevalence, consequences, determinants, measurements and possible treatments.

Method

For this review, we searched and examined studies addressing FOC and its features, including prevalence, assessment methods or measurements, determinants, consequences and treatment methods. Electronic databases PubMed (until December 2015), PsycINFO (until December 2015) and Google Scholar were searched, using combinations of the following search terms: fear of pregnancy, fear of childbirth, tokophobia, definition, prevalence, treatment, W-DEQ. Additional publications were identified from the reference lists of the retrieved articles. All relevant papers have been published in English and report original data and/or theoretical perspectives related to (severe) FOC.

Definition and Features

Some women dread and avoid childbirth despite desperately wanting a baby. Fear of parturition has been already known for ages since Marcé – a French psychiatrist – wrote in 1858: "If they are primiparous, the expectation of unknown pain preoccupies them beyond all measure and throws them into a state of inexpressible anxiety. If they are already mothers, they are terrified of the memory of the past and the prospect of the future" (cited in Hofberg & Brockington, 2000, p. 83). Nowadays, a minority of these pregnant women still suffer from a variety of

fears. When this specific anxiety or fear to die during parturition precedes pregnancy and becomes so overwhelming that childbirth ('tokos' in Greek) is avoided whenever possible, it is referred to as 'tokophobia'. Hofberg and Brockington (2000) introduced the term "tokophobia" to refer to this pathological FOC in the medical literature. More often the general term pathological FOC is used. To date, there is still no consensus concerning the exact definition of severe FOC. On the other hand, there is agreement that women with severe FOC are concerned about the well-being of themselves and their infants (Melender & Sirkka, 1999; Wijma, 2009), the labor process, e.g., pain, medical interventions, abnormal course of labour, death, re-experiencing a previous traumatic delivery (Ryding, 1993), personal conditions (lack of control, distrust in own abilities) and external conditions, like interaction with or the assistance of the staff (Sjögren, 1997). According to Hofberg and Brockington (2000) and Hofberg and Ward (2003), three types of severe FOC can be distinguished (1) Primary FOC: This condition is characterised by a dread of childbirth that pre-dates pregnancy. It often starts in adolescence or early adulthood; (2) Secondary FOC: This occurs after having experienced a traumatic or distressing delivery, such as instrumental or operative deliveries due to foetal distress or severe pain and perineal tearing; and (3) FOC as a symptom of prenatal depression: Some women develop a phobic fear and avoidance of childbirth as a symptom of depression in the prenatal period. However, in all three types, the fear and avoidance of childbirth was typically characterised by a recurrent intrusive belief that one was unable to deliver the baby and that, if one had to, one would die.

Zar et al. (2002) and Wijma and Wijma (2016) proposed to consider FOC as an anxiety disorder or as a phobic fear, which may manifest itself in nightmares, difficulties in concentrating on work or on family activities, physical complaints, and often in an increased request for a cesarean section as the mode of delivery. These authors assessed the links between several anxiety concepts and FOC, with a focus on state and trait aspects of anxiety in FOC. State anxiety is the transient reaction, which comes and goes, whereas trait anxiety refers to the more stable tendency of the individual to react with fear. Women who reported a severe FOC expressed higher general trait anxiety than women with moderate FOC who, in turn, expressed higher levels of general anxiety than women who experience low levels of FOC. This observation suggests that FOC comprises a considerable amount of trait fear. These authors also found support for the idea that FOC has important aspects in common with phobias (Zar et al., 2001). According to the Diagnostic and statistical manual of mental disorders (DSM-V) of the American Psychiatric Association (APA, 1994), for a phobia the following features are essential: (1) marked and persistent fear of a specific object or situation that is excessive or unreasonable, lasting at least six months; (2) immediate anxiety usually produced by exposure to the object; (3) avoidance of the feared situation, and (4) significant distress or impairment. Although these phobic features apply to women with severe FOC, FOC remains a specific fear at the end of a continuum ranging from negligible to severe fear that needs to be distinguished from general phobias.

Klabbers, Wijma, Paarlberg, Emons, and Vingerhoets (2014) suggested that severe FOC is featured by the prevalence of "restrain internal sensitive participation" (RISP): For example, a pregnant woman who undergoes a vaginal examination by a midwife or gynaecologist may feel somewhat awkward although she might understand the necessity of such a physical examination. This is a normal reaction because the area examined is considered as private by most women. The pregnant woman will let her body object be internally examined, trying not being sensitively involved. RISP can be functional to allow a stranger, such as a physician or midwife, access to one's most private body parts. However, during childbirth, it is not functional to isolate the feelings in the belly and pelvic area. A persistent RISP reaction may even form a severe obstruction because the birth of a child requires sensitive involvement. This RISP reaction often occurs during a situation that is experienced as uncomfortable. Women with an almost permanently present RISP lack the capacity to feel connected with their belly and pelvic area.

Clinical Criteria

Wijma and Wijma (2016), who have introduced the term 'childbirth anxiety' (CA) as an alternative of 'fear of childbirth' (FOC), described the clinical criteria of CA as follows: (1) *Low CA*: the woman does not see any or almost no problems with and is not bothered about giving birth; (2) *Moderate CA*: the woman can imagine that problems may appear during labour and delivery but also feels that those can be dealth with in an adequate way and that there a woman always runs some risks when she is giving birth; (3) *Severe CA*: the fear is so intense that is makes the woman dysfunctional with serious possible consequences for her personal, social, and work life and for her willingness to become pregnant and/or ability to give birth; and (4) *Phobic CA*: the fear fulfills the criteria of a specific phobia according to DSM-V (APA, 1994).

Assessment and Measurement

In the past, various kinds of diagnostic methods have been used to identify high FOC women. The anxiety aspect of FOC has frequently been measured with questionnaires originally developed to measure general anxiety (Barnett & Parker, 1986; Bhagwanani, Seagraves, Dierker, & Lax, 1997) or by self-constructed questionnaires or interviews focusing on childbirth-related fear or anxiety (Hofberg & Brockington, 2000; Ryding et al., 1998). Huizink, Mulder, Robles de Medina, Visser, and Buitelaar (2004) demonstrated that assessment of general anxiety during pregnancy may underestimate the fear specifically related to pregnancy. In their study, pregnancy fear rather than general anxiety was found to predict birth outcome and neuroendocrine changes during pregnancy. They further found that

only about 20-25% of pregnancy anxieties during early and late pregnancy could be explained by personal factors and, therefore, they concluded that pregnancy anxiety should be regarded as a relatively distinctive syndrome. Generally speaking, general anxiety scales are not designed and thus not fit to assess anxieties and worries related specifically to pregnancy. They lack the needed construct validity and fail to predict specific outcomes. Therefore, to measure FOC, specific scales are recommended. Areskog et al. (1981, 1982) conducted one of the first studies on FOC. They assessed FOC by interviewing 139 women during their third trimester of pregnancy about their experiences and expectations and combined the results with a newly developed 19-items questionnaire addressing childbirth. These results have led to the development of a questionnaire that has been used in its original or in a revised form, in several countries (Areskog, Kjessler, & Uddenberg, 1982; Saisto, Salmela-Aro, Nurmi, & Halmesmäki, 2001a; Saisto, Salmela-Aro, Nurmi, Könönen, & Halmesmäki, 2001b). Another assessment instrument, which has been developed by Wijma, Wijma, and Zar (1998), is the Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ). The W-DEQ has been designed especially to measure FOC operationalised by the cognitive appraisal of the delivery. This 33-item rating scale has a 6-point Likert scale as a response format, ranging from 'not at all' (=0) to 'extremely' (=5), yielding a score-range between 0 and 165. Internal consistency and split-half reliability of the W-DEQ = .87. A W-DEQ score of ≥ 85 is considered to indicate severe FOC (Wijma et al., 1998). The W-DEO proved to be a useful diagnostic test for disabling FOC in Swedish late pregnant women (sensitivity 91%, specificity 96%) (Zar, 2001). Recently, there is consensus to determine severe FOC by using the Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ). However, different cut-off scores have been applied to qualify women as high FOC women. For instance: W-DEQ A score > 100 (Rouhe, Salmelo-Aro, Tolvanen, Tokola, Halmesmäki & Saisto, 2012), W-DEQ A score > 85 (Kjærgaard et al., 2008; Klabbers et al., 2014) and W-DEQ A score > 66 (Toohill et al., 2014). This implies that the definition of high FOC differs considerably among studies.

Prevalence

Using the W-DEQ \geq 85 criterion, the prevalences of high FOC pregnant vary between 7.5% and 8% in Norway (Adams et al., 2012; Nordeng et al., 2012; Storksen et al., 2012), 9.2% in Canada (Spice et al., 2009), between 10.0% and 15.8% in Sweden (Kjærgaard et al., 2008; Nieminen et al., 2009; Ryding et al., 1998; Zar et al., 2001). The prevalence rates thus vary among studies, depending, among others, on factors like timing of the assessment and the cultural context (Waldenström, Hildingsson, & Ryding, 2006). The finding in Sweden that also 13.0% of the expectant men reported severe FOC indicates that also among fathersto-be childbirth-related fear is an important issue that deserves attention (Ekiksson, Westman, & Hamberg, 2006).

Determinants

A previous negative experience of pregnancy and childbirth are the main determinants of secondary FOC in multiparous women (Melender, 2002; Zar et al., 2001). For example, an emergency cesarean section has often been experienced as a severe trauma (Ryding, Wijma, & Wijma, 1997). Also fear of death is expressed by up to 41% of women with a previous experience of a complicated childbirth (Sjögren, 1997). These women additionally often report a lack of trust in the obstetric team and fear of their own incompetence. From the general trauma literature, it is known that only a minority of people develop post-traumatic stress disorder (PTSD) after having experienced a shocking event. A larger number of individuals, however, may develop posttraumatic stress symptoms, which may be part of a normal response to highly stressful events (Kleber, Brom, & Defares, 1992). PTSD or intrusive stress reactions following childbirth mainly result from intolerable pain during labor or from an unanticipated complication such as an emergency cesarean section (Wijma, Söderquist, & Wijma, 1997).

Studies of determinants of severe primary FOC – other than secondary FOC which results from negative previous obstetric experiences – are scarce (Saisto & Halmesmäki, 2003). The aetiology of FOC is likely to be multi-factorial and may be related to more general anxiety proneness, as well as to very specific fears. In addition, person and situational factors may all exert their influence. In the following paragraphs, possible determinants of severe FOC are discussed.

Person Characteristics

General anxiety, neuroticism, depression, physical complaints, vulnerability, low self-esteem, dissatisfaction with the partner and lack of social support, have been found to be related to fear of vaginal delivery and pregnancy-related anxiety (Saisto et al., 2001a). Additionally, is has been suggested that a pregnant woman's expectation of the delivery is relevant to her experiences of and behavior during delivery (Zar, 2001). FOC has been associated with both anxiety proneness in general (Ryding, Wirfelt, Wängborg, Sjögren, & Edman, 2006; Wijma & Wijma, 1992) and clinical anxiety disorders (Zar, Wijma, & Wijma, 2002). In a Swedish population-based study of pregnant women, the prevalence of general mood and anxiety disorders was found to be respectively 11.6% and 6.6% (Anderson, Sundström-Poromaa, Bixo, Bondestam, & Åström, 2003). In women with a psychiatric diagnosis, FOC was twice as common. Psychological characteristics such as depression, may also affect the woman's attitude to her pregnancy and her forthcoming delivery. Negative feelings, thoughts and emotions in early pregnancy also affect later childbirth experiences. FOC could be a sign of hidden depression, the diagnosis of, and therapy for which, would most likely improve the quality of life of the patient and her partner and, consequently, also FOC (Saisto et al., 2001a).

Fear of Pain

Fear of pain and a self-suspected low pain tolerance are among the most common causes of FOC (Saisto & Halmesmäki, 2003). However, labor and birth related fear seems to be strongly related to the proneness to experience fear of pain in general, irrespective of parity (Melender, 2002). Fear of pain is also one of the most common reasons for requesting a cesarean section, and can be seen as pain-avoiding behavior (Saisto & Halmesmäk, 2003).

Fear of Being Incapable of Giving Birth

Fear of being incapable of giving birth is common as well. Approximately two-third of women with severe FOC reported that they felt incapable of giving birth (Sjögren, 1997). Remarkably, this reported fear and felt incapacity were not related to previous birth experiences. In addition, fear of doing something wrong and harming the fetus by inappropriate behavior during labor is highly connected to the fear of being incapable of giving birth (Melender, 2002; Szeverény, Poka, Hetey, & Torok, 1998). There is often a fear of losing one's mind, losing touch with reality, or various emotions expressing hopelessness and helplessness. These kinds of fear can result from actualization of some traumatic events from one's childhood (e.g., being abandoned or abused), or from previous experiences of being neglected when asking for help (e.g., during previous contacts with health care professionals) (Melender, 2002). Women with FOC who strongly desired a surgical delivery and were refused, suffered from greater psychological morbidity than those granted their chosen method of delivery (Hofberg & Brockington, 2000).

Fear of Becoming a Parent

Another common fear is the fear of becoming a parent. The birth of a child is one of the major events in their transition to adulthood for young couples (Ruble et al., 1990). The birth of a child implies new responsibilities and requires new skills. As pointed out by Saisto & Halmesmäki (2003), because of the cultural changes in western society, the significance and admiration of maternity have decreased at the expense of emancipation, work, and career. Also, the lack of role models of how to be a good mother or father in the modern times may increase doubts about one's capability to take care of the newborn. Postpartum, anxious and neurotic women feel less confident about parenting and have a low confidence in their capacity to deal adequately with the baby (Barnett & Parker, 1986).

Abuse and Trauma

A history of sexual abuse may be associated with an aversion to gynaecological examinations including routine smears or obstetric care (Hofberg & Brockington, 2000). Also, the trauma of a vaginal delivery, or even thinking about it, may cause a resurgence of distressing memories of childhood sexual abuse (Hofberg & Brockington, 2000). Women who have already suffered during childbirth may be afraid of re-traumatisation. This can contribute to secondary pathological FOC and thus to a dread and avoidance of childbirth, even when a woman wants a baby. In a study by Heimstad, Dahloe, Laache, Skogvoll, and Schei (2006), women with FOC who reported being exposed to physical or sexual abuse in childhood had a higher W-DEQ score than did the non-abused counterparts and only half of the women who were sexually or physically abused in childhood (54% and 57% respectively) had uncomplicated vaginal delivery at term versus 75% of the non-abused women with FOC.

Socio-Cultural Factors

Regarding primary FOC, there is some evidence that previous psychological morbidity puts a woman particularly at increased risk, if she additionally lacks support from her social network (Sjögren & Thomassen, 1997). Saisto, Salmelo-Aro, and Halmesmäk (2001c) found a strong association between FOC and pregnancy-related anxieties, on the one hand, and specific personality characteristics and socio-economic factors, on the other. FOC may also transmit over generations (Benoit & Parker, 1994), and this can produce a second generation effect of a mother's own unresolved frightening experience. It has been suggested that a woman's reproductive adaptation is like her mother's, which suggests a psychological "heredity" (Uddenberg, 1974). Furthermore, a low education or socio-economic level, are factors predisposing to anxiety during pregnancy or FOC (Rofé, Blittner, & Lewin, 1993). Moreover, the partner's dissatisfaction with life and with the partnership may contribute to the development of the woman's pregnancy-related anxiety and FOC (Saisto et al., 2001a). Also, unemployed women and women who are not cohabiting with the father of the child are more likely to report pregnancy-related anxiety and FOC than women with a stable partnership and employment (Melender, 2002; Saisto et al., 2001a).

Consequences

Severe FOC may have several more or less dramatic consequences. In some tragic cases, a woman may be so terrified of giving childbirth, that she will terminate a desired pregnancy, rather than go through childbirth. Additionally, some women will actively seek out an obstetrician who is willing to perform an elective CS, even before becoming pregnant for the first time (Hofberg & Ward, 2003). Some women never overcome their severe FOC and remain childless,

whereas others decide to adopt a child. In exceptional cases, women enter the menopause without having delivered a much-desired baby and grieve this loss into old age (Hofberg & Ward, 2003). In the following paragraphs, further possible consequences of severe FOC are discussed.

Sterilization

Ekblad (1961) addressed the issue of fear of pregnancy as a reason for requesting sterilisation. Some childless women presenting for this permanent contraceptive method may pathologically fear childbirth. Fones (1996) reports on a case study in which a woman, who severely suffered from PTSD-symptoms and experienced FOC, underwent a tubal ligation, after which her PTSD-symptoms diminished. Ekblad (1961) suggested that women with serious FOC should be treated by a psychologist to learn to deal with the FOC rather than undergoing such irreversible and life changing medical interventions.

Termination of Pregnancy

Termination of pregnancy may be requested by women who suffer from extreme pathological FOC. They are willing to have a baby but consider themselves as being unable to cope with their aversion of parturition. Hofberg and Brockington (2000) reported on three women who terminated their pregnancy because they were too terrified to endure a delivery. One woman began to exercise strenuously in the hope of inducing a miscarriage rather than to undergo a vaginal delivery. The other two also sought termination of pregnancy despite their planned delivery. In the absence of an empathic professional ear, their only choice was to discontinue their pregnancy. They subsequently had to live with the psychological impact of that decision.

Caesarean Section

Studies in several countries have revealed a remarkable rise of the overall CS rate (Gamble & Creedy, 2000; Jolly, Walker, & Bhabra, 1999; Kwee, Elferink-Stinkens, Reuwer, & Bruinse, 2007; Marx, Wiener, & Davies, 2001; McCourt et al., 2007). For example, in the Netherlands the CS rate rose from 8.1% to 13.6% in the period of 1993-2002 (Kwee et al., 2007), to 17% in 2014 (Perined, 2015). It has been suggested that severe FOC during pregnancy may increase the risk of emergency CS (Ryding et al., 1998). Sjögren and Thomassen (1997) reported that the number of pregnant women requesting CS because of fear of vaginal delivery has increased markedly from 1989 to 1992. Hildingsson, Rådestad, Rubertsson, and Waldenström (2002) found that in comparison to pregnant women who intend to deliver vaginally, women preferring CS are more depressed and worried, not only about giving birth but also about other things in life. This study additionally identified three factors that were statistically associated with a wish for CS: (1) a

previous CS, (2) fear of giving birth and (3) a previous negative birth experience. The main reason for a woman's request for a CS on non-medical grounds was severe FOC, a finding that is supported by other studies (Ryding et al., 1998). These findings are in contrast with previous research, conducted in Sweden, in which severe FOC was found to be associated with an increased risk of an emergency CS (Ryding et al., 1998). However, FOC during the third trimester was not associated with mode of delivery in a UK sample (Johnson & Slade, 2002). In that study, emergency CS was connected with previous CS, parity, age and a score reflecting medical risk, but not FOC or anxiety measures. In sum, the literature is inconclusive regarding the possible relevance of severe FOC for CS rates, and more research is needed to obtain a decisive answer to this question and to identify the specific contributing factors. Of utmost importance is the question if the rise in CS rates can be fully or partially explained by severe FOC and whether this is due to a true rise, or if it is better recognized nowadays, or if it is maybe seen as a more valid reason for a CS.

PTSD

Above we already discussed that PTSD could be considered as a determinant of FOC in multiparous women. In this paragraph, however, the focus is on PTSD as a consequence of these fears, which is increasingly being recognised (Ryding et al., 1997). According to Ayers, Eagle, and Waring (2006), approximately 1-2% of women develop PTSD as a consequence of childbirth. Olde, Van der Hart, Kleber, Van Son, Wijnen, & Pop (2005) estimate the prevalence of PTSD following childbirth at approximately 2.8-5.6% at six weeks postpartum, with a decrease to approximately 1.5% at six months postpartum. Olde et al. (2005, 2006) identified the following risk factors for PTSD and PTSD symptoms relating to childbirth: specific personality traits, the level of obstetric intervention, intense perinatal emotional reactions, a history of psychological problems, certain obstetric procedures, negative staff-mother contact, and lack of social support. Some studies indicate that women can perceive labor as traumatic independent of the type of procedure, but there is also evidence that invasive procedures, such as emergency CS or instrumental delivery are more likely to be experienced as traumatic (Bailham & Joseph, 2003). Fear is an important risk factor of all kind of later problems in women during labor (Czarnoka & Slade, 2000; Moleman, van der Hart, & van der Kolk, 1992; Ryding, 1993; Wijma et al., 1997). Wijma et al. (1997) found that a PTSD-diagnosis was associated with a fear of losing or severely injuring the child or themselves. PTSD as a consequence of childbirth, in its turn, may have several wide-ranging effects on women, their relationships, and the mother-baby bond (Avers et al., 2006; Nicholls & Avers, 2007).

Treatment

Interventions for high FOC women aim to reduce their childbirth-related anxiety and to facilitate the acceptance of uncertainties associated with the future delivery (Bewley & Cockburn, 2002; Wijma & Wijma, 2016). The effects of treating anxiety and FOC can be evaluated in many different ways, such as in terms of alleviation of perceived stress and better adjustment during pregnancy, withdrawal of the request for a CS, having better mother-child bonding during pregnancy and postpartum, have fewer childbirth complications, having less postpartum problems. The first attempts to treat FOC date back to the 1920s (Hofberg & Ward, 2003). Early intervention included, among others, psychoprophylaxis (Vellay & Vellay Dalsance, 1956) and hypnosis (Jenkins & Pritchard, 1993). In addition, different kinds of counselling and short-term psychotherapy have been given to pregnant women demanding an elective CS (Ryding, 1993). Pharmacological treatment of women with FOC is exceptional, unless co-morbidity like clinical anxiety, depression, or panic disorder calls for it (Saisto & Halmesmäki, 2003). Some interventions to reduce FOC focus especially on the recovery of PTSD-symptoms following childbirth.

Until now, interventions focusing on the reduction of severe FOC have been evaluated in four randomized clinical trials (RCTs): three focused on psychoeducation in a group (Rouhe et al., 2012, 2015; Saisto et al., 2001b) and one on individual psycho-education by telephone (Toohill et al., 2014). In addition, there are currently three RCT's ongoing: Treatment of severe FOC with haptotherapy: a multicenter randomized controlled trial (Klabbers et al., 2014), Treatment of severe FOC with cognitive behavior therapy, comparison of internet cognitive behavior therapy with traditional live therapy (see U.S. clinical trialregister NCT02266186), and, finally, Eye movement desensitization and reprocessing treatment in pregnant women with FOC (see Dutch trialregister NTR5122). In the following paragraphs, the most common current treatments of FOC are discussed.

Psychotherapeutic Interventions

Saisto and Halmesmäki (2003) point out that different kinds of psychotherapeutic interventions can be helpful, although they may be emotionally exhaustive and expensive. These psychotherapeutic interventions can be combined with either simple or specific counselling. The few studies on this issue have combined different kinds of support or short-term therapy (Ryding, 1993; Sjögren & Thomassen, 1997). Treatment generally includes individual emotional support, provided by an obstetrician. This proved to be successful, as 56% of the 100 women with FOC withdrew their request of CS after receiving this type of intervention (Sjögren & Thomassen, 1997). In a smaller study (*N*=33), 50% of women withdrew their request for CS after psychological support, counseling, crisis intervention, or short-term psychotherapy (Ryding, 1993). In a study by

Sjögren (1998) (N=100), a quarter of the women in his study accepted conventional, eclectic psychotherapy, given by a trained obstetrician. The goals of the treatment were to identify the different aspects of the anxiety, to reduce the anxiety itself, and to encourage the women to consider a vaginal delivery, if possible. Contrary to expectations, the women who received therapy remembered their pregnancy as a more distressing period than the controls. The delivery itself, however, was remembered similarly by both groups. Sandström, Wiberg, Wikman, Willman, and Högberg (2008) investigated the effects of eye-movement desensitization and reprocessing treatment (EMDR) to treat women with PTSDsymptoms after childbirth. The EMDR treatment consisted of a structured treatment of traumatic experiences, by alternating between stimulating and questioning until the level of discomfort for the patient was reduced to the lowest possible. This study treated four women with a PTSD diagnosis after childbirth, and all women reported a reduction of PTSD symptoms afterwards. At 1-3 year follow-up, this positive effect was maintained for three of the four women. Because of the intensity of emotions exacerbating during this therapy, it is recommended to use this intervention for non-pregnant women who have experienced a traumatic birth and are ready for reprocessing it (Sandström et al., 2008). It thus seems possible to prevent secondary FOC. Further research is required to evaluate the usefulness of this kind of therapy in treating secondary FOC. To date, there is one ongoing RCT study using EMDR treatment in pregnant women with FOC (see Dutch Trialregister NTR5122).

Psycho-Education

The first randomized controlled effect study on FOC has been conducted by Saisto et al. (2001b). This intervention in the intensive group consisted of information and discussion of previous obstetric experiences, feelings, and misconceptions. The appointments were planned during routine obstetric check-ups to assure the normal course of the pregnancy. According to Saisto and Halmesmäki (2003), the cognitive approach is well suited for the treatment of FOC, because of its short and changeable duration and its focus on one problem. The main principle of psycho-education is to focus on one target problem and the reformulation of it in a limited time, with an active role of the therapist. Moreover, an appointment with the midwife and visits to the obstetric ward were recommended to obtain more practical information about pain relief and possible interventions (e.g., vacuum, scalp blood sample) during labor and delivery. Written information was given at the first session regarding the pros and cons of vaginal delivery versus a CS, as well as about alternative modes of pain relief available in the hospital. The intervention in the comparison group consisted of the provision of standard information and routine obstetric check-ups, as well as written information about the pros and cons of vaginal versus caesarean delivery, and about the pain relief that is offered at the hospital. The intensive therapy group comprised 85 pregnant women, the

conventional therapy 91. Twenty women (23.5%) in the intensive therapy group requested a CS for psychological reasons and 26 women (28.6%) in the conventional therapy group. After intervention in both groups, 62% of all of those originally requesting a CS chose to deliver vaginally (Saisto et al., 2001b). In women delivering vaginally, labor lasted 1.7-hour shorter in the intensive intervention group than in the conventional group. Positive effects have been reported for psycho-education in a group (Rouhe et al., 2012, 2015) and for individual psycho-education over the telephone (Toohill et al., 2014). All these interventions resulted in lower rates of caesarean sections, more spontaneous vaginal deliveries, and more satisfactory delivery experiences. Moreover, better maternal adjustment, a less fearful childbirth experience, and fewer postnatal depressive symptoms were demonstrated compared to care as usual.

Briefing

In case of secondary FOC, proper feedback of what happened during the previous childbirth may prevent many misunderstandings and can help women to cope more effectively with a possible subsequent delivery (Ryding, 1991; Saisto et al., 2001b). This intervention is in the tradition of Pennebaker's work, who has introduced the writing paradigm in the psychological literature (cf. Smyth, Stone, Hurewitz, & Kaell, 1999). After the women have written down their problems, the gynaecologist arranges a session to take away their uncertainties about the childbirth. In addition, every member of the medical team who is seen by the women fearing childbirth (e.g., obstetricians, midwives, gynaecologists) is knowledgeable and well-informed about their fears and uncertainties. They also obtain extra support in the delivery room. The first results of this intervention are very positive. The women feel that their problems are taken seriously and that the medical team is adequately prepared. Until now, 35 of them experienced the childbirth without problems or complications, and they are very satisfied with the delivery.

Counselling

Counselling provides helpful information to women with FOC and assists them with making informed choices regarding their delivery. There is a wide variability of approaches of counselling, ranging from simply unstructured listening' sessions to specific interventions requiring psychotherapeutic training (Gamble, Creedy, & Moyle, 2004; Nerum, Halvorsen, Sørlie, & Øian, 2006). These authors proposed crisis-oriented counselling for women with FOC who requested CS. The theoretical framework of crisis-oriented counselling makes a distinction between pure crisis and over determined crisis. FOC is considered an over determined crisis (Nerum et al., 2006). Of the 86 included women, 86% changed their request for a CS and were willing to deliver vaginally. Long term satisfaction

with this decision was found, and participants remained satisfied with counselling at a 2-4 year follow-up.

Treatment in Aurora Clinics

In Sweden, nearly all obstetric departments have established 'Aurora clinics'. These are qualified teams consisting of midwives, an obstetrician, a psychologist, a social worker, and sometimes a psychiatrist, who support women with FOC (Waldenström et al., 2006). Pregnant women are usually referred to these teams by a midwife or doctor at the antenatal clinic and are referred mostly during their third trimester. First, an assessment of the individual problem takes place and plans are made for the following counselling. Counselling often includes a visit to the local delivery ward and the making of a birth plan as guidance for the delivery ward staff. Most women pay 2-4 visits to the Aurora-team, but this may vary between patients. The clinics have currently not yet been evaluated yet by randomised controlled trials because of ethical issues, but the study of Waldenström et al. (2006) suggests that it may help women with antenatal fear to have a more acceptable experience of the delivery.

Haptotherapy

In the Netherlands, pregnant high FOC women would normally visit a psychologist or psychiatrist. However, these women can also directly contact a healthcare haptotherapist who is specialized in the treatment of pregnant high FOC women. Haptotherapy claims to facilitate the development of specific skills changing the cognitive appraisal of giving birth and labeling childbirth as a more normal and positive life event, which may ultimately lower FOC. The intervention comprises a combination of skills, taught in eight sessions of one hour between gestational week 20 and 36 (Klabbers et al., 2014). Preferably, the partner of the pregnant woman also attends every session and participates actively in several exercises. Klabbers et al. (2014) have described the intervention in detail. To date, there is an ongoing RCT study evaluating haptotherapy treatment in pregnant women with severe FOC (see Dutch trial register NTR3339).

Treatment Based on the PLISSIT Model

Saisto & Halmesmäki (2003) introduced the 'PLISSET' model (Permission / Limited Information / Specific Suggestions / Intensive Therapy) for the treatment of FOC. This model implies and emphasizes that different health care professionals should contribute to the treatment of FOC women. The PLISSIT model distinguishes four different levels of confrontation, and it can be easily adapted to the treatment of FOC. This model implies a spirit of cooperation and knowledge sharing. According to this model, the training of pregnancy and childbirth professionals must include skills in recognizing women with FOC, depression, and

PTSD after a previous childbirth or other traumatic events, lessons about psychoeducation and possible therapies. The proponents further propose that treatment of women suffering from FOC should be tailored to the woman's specific situation and needs. As is the case for all interventions, the model should be first implemented into clinical practice before one can appropriately evaluate its effectiveness in treating FOC.

Negative Outcomes

Although several treatment seems to diminish FOC, they occasionally also may have negative consequences. For example, Ryding, Persson, Onell, and Kvist (2003) studied birth experience, posttraumatic stress symptoms and satisfaction with care in new mothers who had consulted specially trained midwives because of FOC during pregnancy. Contrary to expectations, women in the intervention group reported a *more* frightening experience of delivery and *more* frequent symptoms of post-traumatic stress related to delivery than did women in the comparison group. This finding emphasizes that women who seek help for FOC are a vulnerable group and that it cannot be taken for granted that interventions always have (only) positive effects. Adequate evaluation research is badly needed to obtain more insight into the specific benefits of an intervention.

Conclusion

FOC occurs in a significant minority of pregnant women. It may have serious negative effects on both the pregnant woman and birth outcome. There are many variables and circumstances influencing FOC. In addition, there is limited evidence that a variety of interventions may have positive effects. However, trying to design the universal treatment for FOC will not likely be the ultimate solution. Research is needed to obtain a better understanding of which person and context factors predict which therapies fit individual patients best.

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Miedo grave al parto: Sus rasgos, evaluación, prevalencia, determinantes, consecuencia y posibles tratamientos

Resumen

La reseña resume la literatura relevante en cuanto al miedo al parto. Un número considerable de mujeres (embarazadas) tienen cierto miedo al parto y una minoría significativa demuestra miedo grave al parto. El foco será en la definición del problema, sus rasgos, prevalencia, métodos de evaluación y mediciones, determinantes, consecuencias y métodos de tratamiento. Todavía no hay consenso sobre la definición exacta del miedo grave al parto. Sin embargo, todos están de acuerdo que las mujeres con el miedo grave al parto están preocupadas por su bienestar y por el bienestar de sus hijos, por el proceso del parto y otras condiciones personales y externas. En los estudios sobre la ansiedad prenatal y el miedo al parto, diferentes métodos de diagnóstico se usaron en el pasado. Recientemente, existe un acuerdo para determinar el miedo grave al parto usando el Cuestionario de Wijma de expectativa/experiencia de parto. La etiología del miedo al parto parece ser multifactorial y podría relacionarse con la propensión a la ansiedad más general, tanto como con algunos miedos muy específicos. Además, muchos profesionales sanitarios influyen en las mujeres embarazadas, como p. ej. comadronas, enfermeras, ginecólogos, terapeutas y consejeros prenatales. Intentar diseñar un tratamiento universal para el miedo al parto no parece ser la solución final; por lo tanto, se necesitan investigaciones futuras en el tratamiento multidisciplinario y predictores que establecerían qué terapias al nivel individual son las más eficaces y apropiadas.

Palabras claves: miedo al parto, miedo al embarazo, ansiedad, W-CEP, tratamiento

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