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COGNITIVE-BEHAVIOURAL PSYCHOTHERAPY OF TOKOPHOBIA

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Summary

The objective of this article is to present the phenomenon of tokophobia, or fear of childbirth, in the context of cognitive-behavioural psychotherapy. It is estimated that severe fear of childbirth affects 10%-15% of pregnant women, which may translate into a notable rise in the number of caesarean sections in recent years. The first section of the article examines the various forms of tokophobia, its aetiology, its place in the classifications of mental disorders, and the consequences for the individual experiencing fear of childbirth and for society in general, specifically in the form of health consequences for the mothers and children. The next part of the article presents a description of the cognitive-behavioural mechanisms that may underlie tokophobia. These include classical and operant conditioning, vicarious acquisition, and the transmission of fearful information. The article also describes diagnostic tools for tokophobia and selected therapeutic interventions, including the exposure-based Dual-Session Tokophobia Intervention (DSTI) protocol. The paper identifies gaps in scientific research on the therapy of tokophobia and points to a need for further studies of tokophobia psychotherapy efficacy with more rigorous methods that would allow for conclusions with lesser risks of bias.

1. Tokophobia – definition and characteristics

Tokophobia, or fear of childbirth, is not a separate diagnostic entity in classifications of mental disorders such as ICD-10 or DSM-5. It was first described more comprehensively only in 2000 [1]. In the ICD-10 classification, it can be coded using two categories: either as a specific phobia (F40.2) or as a 'mental disorder and disease of the nervous system complicating pregnancy, childbirth and the puerperium' (O99.3). In the latest edition of the International Classification of Diseases (ICD-11), tokophobia may be classified as a specific phobia, unspecified [2]. Tokophobia has been observed in a variety of gynaecological and obstetric contexts, including among individuals who are not sexually active or not plan-

ning a pregnancy, as well as those who are expecting or planning a child. In the present study, we focus on pregnant women, among whom approximately 10-15% experience intense anxiety related to childbirth that fully meets the diagnostic criteria for phobia [3].

Despite the prevalence of this experience, there is a lack of Polish literature that brings psychotherapy practitioners closer to a synthetic characterisation of the phenomenon of tokophobia in the cognitive-behavioural approach (CBT), along with methods of therapeutic work. This article will present the characteristics and consequences of the phenomenon, as well as the factors responsible for the emergence and maintenance of symptoms. Diagnostic tools and selected methods of therapeutic work with pregnant women available in Poland will also be discussed, the latter together with the results of research on their effectiveness. The two-session protocol by Ben-Rafael and colleagues [2] will be presented in detail, which can be applied in obstetric-gynaecological wards due to its concentrated format and cost-effectiveness.

Anxiety about childbirth is considered to be on a continuum, ranging from fears and anxieties about childbirth that do not affect functioning to clinical tokophobia, which leads to increased distress and avoidance of any situation that may be associated with pregnancy [2]. The aetiology of tokophobia is multifactorial. Studies have identified several characteristics that correlate with the occurrence of tokophobia, such as the severity of general anxiety symptoms [4], depressive symptoms, unplanned pregnancy [5], reduced pain tolerance [6] or experiences of sexual trauma [7]. Tokophobia is observed more frequently in women who are unmarried or do not have a steady partner and in those with lower education and socio-economic status [8]. The role of contextual factors is also noteworthy, with the availability of information on reproductive health and pregnancy [9] as well as the specific Polish legal context regarding high-risk pregnancies [10] being particularly salient.

The mental health and well-being of the mother-to-be have been demonstrated to be significantly related to the normal course of pregnancy and the birth itself. Women with high levels of anxiety and stress have higher rates of miscarriage and a higher incidence of both preterm and delayed labour [8]. Longer delivery times have also been observed [11]. Furthermore, it has been noted that women who experience anxiety and a dysphoric mood during pregnancy are more likely to express a desire to end their pregnancy by caesarean section [12]. This is attributed to the prevailing belief that this method allows the baby to be born without pain, quickly, at a specific time, in a pre-planned manner and in good condition. However, caesarean section is associated with a number of complications for both the mother and the baby [13]. Women undergoing caesarean section are more prone to infections, haemorrhage and complications related to the healing of the surgical wound, and they experience a longer recovery period. Long-term repercussions of caesarean section include post-operative adhesions, chronic pelvic pain, fertility problems, and placental problems in subsequent pregnancies. Infants born by caesarean section may have impaired immune development, reduced gut microbiome, and an increased risk of asthma, allergies or obesity later in life.

According to the recommendations of the Polish Society of Gynaecologists and Obstetricians, severe fear of childbirth belongs to the group of extra-obstetric indications for caesarean section [14, 15]. Consequently, tokophobia is related to the increasing number of caesarean sections without clear obstetric indications. The Government's Programme

for Comprehensive Protection of Procreative Health in Poland for 2021-2023 states that approximately 43% of births end in caesarean section – one of the highest rates in Europe. According to the WHO, the number of caesareans performed due to the risk of complications should range between 10% and 15% of all pregnancies [16]. It is also noteworthy that severe tokophobia may also be a reason for opting for a sterilisation procedure (prohibited by law for women in Poland) or, in the case of a regular sexual partner, a vasectomy [1]. Exacerbated tokophobia can make it more difficult to prepare for childbirth and can introduce complications in the management of the pregnancy and in communication and cooperation between medical staff and the patient.

Tokophobia is classified into three distinct types [1, 15]. The primary form occurs when fear of childbirth develops from adolescence. In women who experience the primary form of tokophobia, images of childbirth or being pregnant cause intense fear and anxiety, often despite the desire to have offspring. Secondary tokophobia occurs in women who have experienced childbirth, but that childbirth involved extreme distress or was a traumatic experience. The secondary form of the disorder is associated with symptoms of postnatal post-traumatic stress disorder and a depressive reaction. The third form is tokophobia as a symptom of depression during pregnancy. This form is characterised by intrusive thoughts surrounding the inability to deliver the baby or dying during childbirth.

Symptoms of tokophobia include those characteristic of anxiety disorders, such as abdominal pain, nausea, chest tightness, general body tension, nightmares, difficulty concentrating, restlessness, panic attacks, excessive worrying, irritability or nervousness. People experiencing tokophobia may also change their behaviour or abandon previous activities due to their fears. Examples include deliberately avoiding sexual activity for fear of becoming pregnant or, once pregnant, avoiding thoughts and conversations about the baby, including hiding the pregnancy. In some cases, there may be an attempt to induce a miscarriage [1]. Exacerbated anxiety related to pregnancy, childbirth and the postpartum period may result in thoughts of abortion, abandoning the child or placing the child for adoption [1, 11, 17]. In the perinatal period, the anxiety experienced by women is usually rooted in the anticipated pain associated with the labour, worry about their own and their baby's health, concerns about the lack of competence of the medical staff, and fear of losing self-control [6, 18]. A comprehensive analysis of the cognitive-behavioural mechanisms of tokophobia can facilitate the integration of the relationship between the triggers of the anxiety reaction, the psychosocial context and the heightened anxiety symptoms.

2. Cognitive-behavioural mechanisms of tokophobia

In the context of cognitive-behavioural therapy (CBT), tokophobia is conceptualised as a specific phobia. Figure 1 presents a model of tokophobia that can serve as a basic schema for conceptualising this type of disorder. The model is based on the interaction of risk and contextual factors, cognitive schemas, anxiety acquisition and vicious circles preventing the extinction of the anxiety response, which is the basic way to conceptualise anxiety disorders in CBT [19]. The mechanisms of childbirth-related anxiety acquisition, as illustrated in Figure 1, are discussed in detail below.

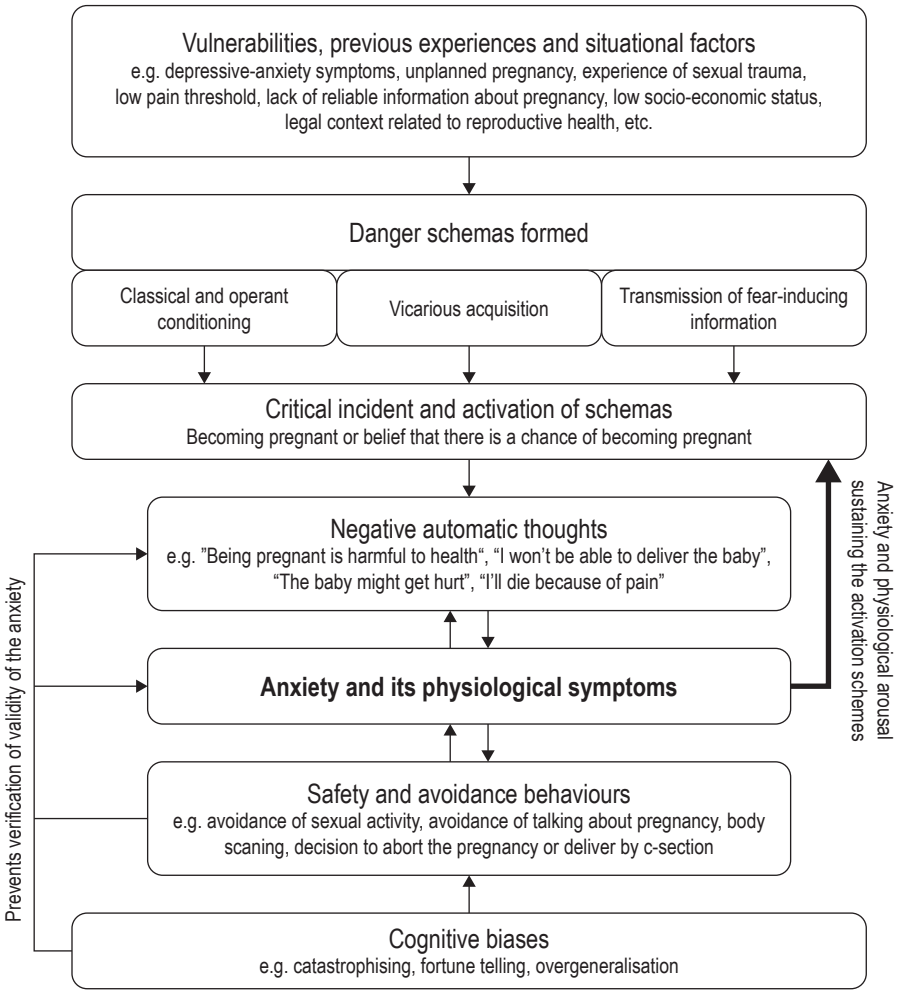

Figure. 1. **A model and basic conceptualisation of tokophobia symptoms**

According to the model of fear conditioning [20], tokophobia symptoms may result from three pathways of fear acquisition. The first mechanism is classical conditioning and the reinforcement of anxiety by instrumental conditioning. In this situation, anxiety becomes a conditioned response to the conditioned stimulus of the pregnancy situation, which is associated with unconditioned, strongly aversive experiences, for example, pain during childbirth. Such a mechanism may explain secondary tokophobia, in which childbirth, a natural phenomenon, but usually associated with strong, often ambivalent emotions, is coupled with the experience of discomfort or trauma. Subsequently, as a result of instrumental conditioning, the avoidance of stimuli associated with pregnancy and childbirth may provide negative reinforcements that will impede the extinction of the primary classical conditioning response.

The second mechanism may be vicarious acquisition [2, 10]. In this case, the person with tokophobia has either directly or indirectly observed people who have had aversive experiences related to pregnancy and childbirth and has thus learned fearful, aversive associations. An example of this would be witnessing a difficult birth and/or subsequent postpartum of a loved one.

The third mechanism implies that tokophobia can develop through the transmission of fear-inducing information through social contacts or media use that exposes the individual to conversations or media material about the negative aspects of childbirth. It is worth noting that, just as negative stories about childbirth ('horror stories' after Sheen and Slade, 2018) [9] can contribute to the acquisition of anxiety, the lack of reliable information about the birth and postpartum process also plays a similar role [9]. It should be noted that these three mechanisms can co-occur and may even have an additive effect in terms of the onset and persistence of tokophobia symptoms.

3. Diagnostic tools

There are several tools for assessing the fear of childbirth. We have focused on those available in Polish. Their psychometric properties are presented in Table 1. The most popular tool for assessing fear of childbirth is the Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ) [4]. The W-DEQ is a 33-item questionnaire. The instrument is widely employed by researchers who use different cut-off points [21], with a score of ≥85 generally accepted as the most appropriate for identifying severe fear of childbirth [22]. In the Polish adaptation, the antenatal version was used, which has satisfactory psychometric properties for use in research and diagnostics [5].

The Fear of Birth Scale (FOBS) [23] consists of two questions designed to evaluate the level of anxiety about the upcoming birth. Each question is scored on a visual analogue scale in the form of a 100 mm line. The patient is instructed to mark a point between 'calm' and 'worried' and between 'no anxiety' and 'severe anxiety'. The FOBS score is the arithmetic mean of the two values, with 60 and above indicating a high level of fear of childbirth. The scale is distinguished by its simplicity and the short time needed to complete it, making it a suitable screening tool for identifying women with severe childbirth anxiety.

Another tool applicable to the assessment of anxiety before childbirth in the Polish population is the PRAQ-R2 (Pregnancy-Related Anxiety Questionnaire-Revised 2) [24]. It is a ten-item tool for assessing pregnancy-related anxiety, and fear of childbirth is one of three subscales (the other two relate to the fear that the child will be physically or intellectually disabled and anxiety about one's own appearance during pregnancy), but the total score of the questionnaire can also be used as an indicator of fear of childbirth. It is noteworthy that there are two independent Polish versions of this tool [25, 26].

A Polish tool to assess tokophobia has also been developed: the Childbirth Anxiety Questionnaire (Polish: *Kwestionariusz Lęku Porodowego*, KLP II) [27]. According to the authors, the KLP II is a reliable and accurate tool for measuring the intensity of childbirth anxiety, which can be used in screening. However, the size of the validation sample (fewer

than 60 women) and the lack of reliable analyses of psychometric properties, apart from internal consistency, suggest that these conclusions should be approached with caution.

Table 1. **Review of questionnaires assessing the severity of tokophobia**

Diagnostic tool	Polish version	Psychometric properties of the Polish version		
		Factor structure	Internal consistency	Time stability
The Wijma Delivery Expectancy/ Experience Questionnaire (W-DEQ) [4]	*Kwestionariusz doświadczeń porodowych Wijma* (W-DEQ) [5]	1-factor structure, analogous to the original	α = 0.93	n.d.
Fear of Birth Scale (FOBS) [23]	*Skala lęku przed porodem* (FOBS) [28]	n.d.	α = 0.93	n.d.
Pregnancy-Related Anxiety Questionnaire-Revised 2 (PRAQ-R2) [24]	PRAQ-R/R2 [25]	3-factor structure, analogous to the original	α = 0.70 – 0.94 for specific subscales and 0.77 and 0.87 for total score for primiparous and multiparous women, respectively	n.d.
	PRAQ-R2 [26]	n.d. (questionnaire was analysed as a 1-factor)	α = 0.85	r = 0.70 (measurements one week apart)
Kwestionariusz Lęku Porodowego – KLP II [27]	questionnaire originally in Polish	n.d.	α = 0.69	n.d.

In a 2018 review, Nilsson and colleagues [21] recommend the utilisation of the W-DEQ with a cut-off point ≥85, a more thoroughly tested version of the FOBS, or a three-item scale ('I am not afraid', 'I am a little afraid', 'I am very afraid') measuring fear of childbirth using a single question ('Are you afraid of childbirth?') to assess tokophobia. This would enable cross-population comparisons. The researchers also underscore the necessity for a validated instrument that exclusively addresses the fear of childbirth and is simpler to use than the W-DEQ.

4. Selected interventions for patients with tokophobia

To date, research into effective methods to reduce anxiety in pregnant women [29], including those experiencing tokophobia, is ongoing. One of the most commonly used methods for fear of childbirth is psychoeducation and/or counselling by a midwife [30].

Due to the specific nature of the situation of pregnant individuals, the therapeutic interventions described in the literature are short-term. While studies have indicated the efficacy of psychological interventions in tokophobia, they have also highlighted the paucity of research and the high heterogeneity in terms of study populations, protocols and research methods [29]. For instance, a Cochrane Library review [30] included only seven randomised trials with a control group testing the effectiveness of psychological interventions. Those interested in research on the effectiveness of interventions for tokophobia can consult available systematic reviews and meta-analyses [29-33]. The present paper does not aspire to provide a systematic review. Instead, we have limited ourselves to presenting a selection of studies that illustrate a variety of approaches to supporting people experiencing tokophobia, both within CBT and third-wave approaches, as well as general psychoeducational interventions. Details of this analysis are presented in Table 2. Notably, CBT-based therapies are widely regarded as treatments of choice for anxiety disorders [34].

The conclusions that can be drawn from this analysis are consistent with previous reviews [30], pointing to high variation in research methods and the results obtained. For example, in some studies, all pregnant women were recruited, regardless of the level of severity of tokophobia symptoms [e.g. 35], and in one study, the measurement of outcome variables took place only after the end of therapy, rendering it impossible to control for the effect of time [36]. Furthermore, most of the studies described did not employ a blinding procedure.

In some cases, the authors of the studies concluded that the methods they tested were safe, but did not have sufficiently beneficial effects compared to control conditions to be able to recommend them as interventions for pregnant women experiencing tokophobia, such as online CBT [37] or EMDR [38]. Greater efficacy was observed with telephone psychoeducation [39] or group forms of support, such as psychoeducation with mindfulness-based relaxation [36], ACT [35] or motivational dialogue therapy [40].

Table 2. **Review of selected studies on psychoeducational interventions and psychotherapy for tokophobia**

Study	Methods				Results	
	Study design	Intervention description	Sample size and description	Outcome measurement	Main results	Additional comments
Toohill et al., 2014 [39]	Randomised, non-blinded multicentre study with a control group; measurements in the second trimester of pregnancy and at 36 weeks of gestation	Telephone psychoeducation in an unspecified amount of time [41] involving, among other things, normalisation of emotions, provision of reliable information and reinforcement of social support; the control condition was TAU, characterised as typical prenatal care	Women with a score ≥66 on the W-DEQ-A; n = 170 in the intervention group and n = 169 in the control group	W-DEQ-A, CBSEI and EPDS	At 36 weeks of gestation, participants in the intervention group had lower scores on the W-DEQ-A (d = 0.59) and CBSEI (d = 0.46) compared to the control group, but not on the EPDS (d = 0.13*)	The analyses described in the previous column are based on data from participants who completed the study (completers), i.e. n = 101 for women in the intervention group and n = 97 for women in the control group
Rouhe et al., 2015 [36]	Randomised, non-blinded, controlled trial; subjects were randomly assigned to conditions in a 1:2 ratio; measurements at mid-pregnancy, one month before planned delivery and three months after delivery	Six group psychoeducational sessions with mindfulness relaxation and one additional session 6-8 weeks after delivery; the control condition was TAU, where patients could have individual consultations with doctors and midwives as needed	Primiparous women with a score ≥100 on the W-DEQ-A; n = 131 in the intervention group and n = 240 in the control group	MAMA, W-DEQ and EPDS In addition, a separate article describes obstetric outcomes [42]	Three months after delivery, participants in the intervention group had higher scores on the MAMA (d = 0.51), lower scores on the W-DEQ-B (d = 0.35) and lower scores on the EPDS (d = 0.28) compared to the control group The effect of the intervention on the EPDS showed lower, but not statistically significant, severity of depressive symptoms in participants in the intervention group (d = 0.19*) compared to the control group Obstetric outcomes [42]: women in the intervention group were more likely to undergo a spontaneous vaginal delivery than those in the control group (63.4% vs. 47.5%) and had fewer caesarean sections (22.9% vs. 32.5%)	n = 90 women chose to attend the group sessions. The analyses described in the previous column are based on intention-to-treat data n = 76 participants in the control group consulted a doctor or midwife due to increased fear of childbirth, and n = 30 participated in preparatory classes led by a specialised midwife Only the results for the EPDS included a time factor (group x time interaction); the analyses for the MAMA and W-DEQ-B are analyses of a single time point in the 3rd month after delivery

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Rondung et al., 2018 [37]	Randomised, non-blinded multicentre study with a control group; measurements at mid-pregnancy, one month before planned delivery and one year after delivery	Eight modules of guided internet CBT based on Unified Protocol and an additional module after delivery; the control condition was TAU, which varied between centres but was characterised as generally 2-4 meetings with a midwife, gynaecologist and/or psychologist	Women with a score ≥60 on the FOBS; n = 127 in the intervention group and n = 131 in the control group	FOBS	One month before the planned delivery, FOBS was lower in the TAU group (d = -0.14), and in the measurement after one year it was lower in the intervention group (d = 0.28)	It is important to note the low involvement of participants in the intervention; only 10% of them used more than the four available treatment modules. The authors note in their conclusion that "[their finding] was not easily interpreted given the low adherence to the guided ICBT and the wide array of potential mediators, moderators, and confounders during childbirth and the postpartum period. Hence, the guided ICBT, as offered in this study, did not seem to be a feasible or well-accepted approach for treating FOB." A qualitative study conducted with female participants in this project describes in depth the limitations and difficulties associated with this therapeutic method [43]
Vakilian et al., 2019 [35]	Randomised, non-blinded, controlled trial; measurements before the start of therapy, after four weeks (i.e. end of therapy) and one month later	Eight group ACT sessions based on a modified health anxiety treatment protocol; the control condition was TAU defined as 'routine pregnancy care'	Women in the second or third trimester of pregnancy; n = 22 in the intervention group and n = 22 in the control group	PRAQ	The intervention group had lower scores on each subscale of the PRAQ compared to the control group (range d = 1.46 - 1.87*) and the questionnaire's total score (d = 2.10*) at the end of therapy, and similar results on a repeat measurement one month after the end of therapy (d = 1.29 - 1.89* for the subscales and d = 2.19 for the total score)	A diagnosis of tokophobia was not a condition for inclusion in the study

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Abdollahi et al., 2020 [40]	Randomised, non-blinded, controlled trial; measurements before therapy and after five weeks (i.e. end of therapy)	Five group sessions based on Motivational Interviewing with the theme of reducing anxiety related to childbirth; the control condition was TAU characterised as typical prenatal care	Women 6-7 months pregnant; n = 35 in the intervention group and n = 34 in the control group	W-DEQ-A, NuPDQ, and Childbirth-Efficacy Index	The intervention group had lower scores on each subscale of the W-DEQ-A compared to the control group (range d = 0.38 – 1.15*) and the questionnaire total score (d = 1.14*) Analogous results were obtained for the subscales (range d = 0.84 – 1.38*) and the NuPDQ total score (d = 1.39*), with the exception of the subscale related to physiological symptoms stress (d = 0.30*) Intergroup differences on the self-efficacy scale during childbirth were not significant (d = – 0.39*)	A diagnosis of tokophobia was not a condition for inclusion in the study. Approximately 70% of participants had a score ≥60 on the W-DEQ-A
Baas et al., 2022 [38]	Multicentre randomised controlled trial with assessors blinded to group allocation; measurements before therapy and at 32-34 weeks of gestation	Up to three group EMDR sessions; the control condition was TAU characterised as typical prenatal care	Women between 8 and 20 weeks of gestation with a score ≥85 on the W-DEQ-A; n = 70 in the intervention group and n = 71 in the control group	W-DEQ-A In addition, a separate article describes obstetric outcomes [44]	The intervention group had lower, but not statistically significant, scores on the W-DEQ-A compared to the control group (d = 0.39) The two groups did not differ significantly in obstetric parameters [44]	Of the n = 70 randomised n = 60 opted to participate in the group sessions, and n = 54 ultimately completed the therapy The analyses described in the previous column are based on intention-to-treat data The authors' summary: 'the results are supportive of EMDR therapy as a safe and effective treatment of FoC during pregnancy, albeit without significant beneficial effects of EMDR therapy over and above those of [TAU]. Therefore, the current study results do not justify implementation of EMDR therapy as an additional treatment in this particular setting.'

TAU - treatment as usual; W-DEQ - Wijma Delivery Expectancy/Experience Questionnaire (version A before birth and version B after), CBSEI - Child-birth Self-Efficacy Inventory, EPDS - Edinburgh Postnatal Depression Scale, MAMA - The maternal adjustment and maternal attitudes questionnaire, FOBS - Fear of Birth Scale, ACT - Acceptance and Commitment Therapy, PRAQ - Van den Bergh's Pregnancy-Related Anxiety Questionnaire, NuPDQ - revised Prenatal Distress Questionnaire.

Note: negative effect size values indicate more favourable effects in the control groups.

* Effect sizes estimated from article data using the calculator https://www.psychometrica.de/effect_size.html

Notably, the description of the results highlights an effect that has already been observed in other research on the effectiveness of psychotherapy. Namely, studies conducted in countries of the global East yielded higher efficacy rates compared to those obtained in Western countries [e.g. 45, 34]. This means that the therapeutic outcomes that could be obtained in future Polish studies would be more similar to those observed in Dutch or Swedish studies than those conducted, for example, in Iran. It is also important to acknowledge the systemic and individual challenges that may hinder access to psychotherapy in cases of tokophobia. Conducting psychotherapy requires the presence of staff with specialised training, which may affect the reduced availability of this type of treatment. For this reason, the support of midwifery staff who deliver interventions under the supervision of qualified psychological staff is used. The duration of psychotherapeutic interventions is typically lengthy, ranging from several to dozens of weeks depending on the theoretical approach, which makes it difficult to benefit from this type of support in the case of a close delivery date. Examples of the interventions described in this section show that they are brief (several meetings) and of increased intensity (e.g. two sessions per week). The available data also indicate that some people experiencing heightened fear of childbirth believe that they do not need psychotherapeutic support or that their fears are not treatable [43]. Additionally, attending sessions that include exposure to the traumatic experience of childbirth may be challenging enough that pregnant individuals may be reluctant to engage in this form of psychotherapy.

5. Dual-Session Tokophobia Intervention by Ben-Rafael et al.

As an alternative to the above-described interventions of varying efficacy and other psychotherapies whose effectiveness has not been verified in research, the Dual-Session Tokophobia Intervention (DSTI) treatment protocol developed by Ben-Rafael and colleagues [2] may be a viable option. The rationale for presenting this protocol in a separate subsection is its strong roots in the cognitive-behavioural model of the aetiology of phobic anxiety (Fig. 1) and its use of exposure techniques, which are the primary method for reducing the severity of symptoms of this type [19, 34]. It should be noted, however, that the efficacy, feasibility and safety of this protocol are yet to be verified.

DSTI is carried out over two two-hour sessions with a one-week break in between. Its main element is exposure, in which the expectant mother faces the situation of childbirth in a controlled setting during the session, with the support of an intervention facilitator. By confronting the fearful stimulus in a controlled manner and withstanding the increasing discomfort, and refraining from avoidance and protective behaviour, the anxiety level begins to decrease. The procedure is designed to modify the conditioned anxiety response and associated beliefs.

This protocol is specifically designed for women in the third trimester of pregnancy, with the objective of quickly reducing anxiety symptoms just before delivery to increase comfort during childbirth. The simplicity of the treatment protocol ensures that the procedure can be utilised by individuals who lack prior psychotherapeutic training, provided they receive the necessary support from a supervisor.

The DSTI consists of five modules. The first part involves gathering basic information regarding the severity of the anxiety and rating specific birthing situations on a scale from 0 to 100, where 0 means no anxiety and 100 indicates maximum intensity. This stage is also pivotal in fostering initial trust between the healthcare professional and the patient.

The second stage consists of psychoeducation. During this phase, the rationale behind the utilisation of specific interventions is presented. The nature of pregnancy-related anxiety, as well as the role of avoidance and protective behaviour in sustaining the disorder, are described. The causes of the anxiety are explained, and the birth situation is normalised.

The third phase involves learning relaxation techniques, such as diaphragmatic breathing and mindfulness training. The relaxation training is recorded. The mindfulness exercise focuses on cognitive defusion, i.e. distancing oneself from internal experiences such as thoughts or emotions by adopting an observing perspective.

The fourth phase, which encompasses the majority of both sessions, is exposure, which is preceded by psychoeducation about the technique itself and cognitive restructuring of the thoughts that arise in anxiety-provoking situations. A cognitive model illustrating the interplay between thoughts, emotions and behaviour is introduced, discussing the aspects of anxiety (emotional, somatic, behavioural, cognitive) and how they influence one another in a vicious cycle that sustains the anxiety.

During this phase, exposures are introduced with detailed stories about birthing and watching animations about childbirth. This is followed by a debriefing and a personal work task (i.e. practising exposures independently between sessions). The second session begins with a discussion of the personal work and includes a continuation of the exposures – a visit to the delivery room, exposure to pain (cold pressor test) and watching a film of an actual birth. The second session culminates in an imaginal exposure, during which the pregnant woman is asked to imagine her own childbirth with a focus on the most fear-inducing aspects. Prior to each exposure, the patient is asked to rate her anxiety/distress on a scale from 0 to 100. At the end of the exposure, the conclusions of the experiments are discussed, and the veracity of the predictions about the effects of the exposure (e.g. negative emotions, discomfort, etc.) is verified. The level of discomfort is measured again. If it exceeds 60, one returns to discussing the vicious cycle, the Socratic dialogue and restructuring. Using these exposures alone at home or in the hospital is recommended to consolidate new insights and conclusions.

The two-session protocol is concluded with a final part, consisting of brief information on the caesarean section, natural childbirth, and the emotional and physiological needs of the woman immediately after giving birth. The mental health professional's role is to normalise the difficulties often encountered in the puerperium.

The limitations of the approach proposed by Ben-Rafael and colleagues [2] include several aspects. The first and most obvious is that it is an experimental intervention whose safety and effectiveness have not yet been verified in quantitative studies. This means that caution should be exercised when offering this working method to pregnant patients. Nevertheless, previous studies on EMDR indicate that exposure techniques can be used safely in this group [44]. Another limitation is that the proposed protocol has been tailored to patients with primary tokophobia, so it may not be suitable for pregnant women with

secondary tokophobia, where the source of distress is anxiety imprinted during a highly stressful or traumatic experience of a previous birth. The exposures offered in the protocol relate to the course of childbirth in general, and their purpose can be described as reducing anxiety by making the unknown or imagined more familiar; however, this may not be sufficient to reduce anxiety in secondary tokophobia.

6. Conclusions

Research to find the optimal method to help women struggling with tokophobia is still ongoing. This search has been prompted by the more than doubling of the number of caesarean sections in recent years. Tokophobia is becoming a significant obstetric problem, especially among primiparous women [16]. An important aspect of childbirth is the perception of it as a stressful situation marked by anxiety, with a characteristic feature being the lack of a sense of control over the event [46]. Psychotherapeutic interventions, which are used for patients with anxiety disorders, make it possible to reduce the severity of tokophobia symptoms. The innovative exposure-based two-session protocol requires research to confirm its safety and efficacy. However, the solid theoretical and empirical basis, the clearly defined structure of the sessions and the short time needed to guide the mother-to-be through the process may speak in its favour.

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