JERN Journal of Education and Research in Nursing

Original Article
DOI:10.5152/jern.2022.87369

Guide to Coping with the Fear of Birth*

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Abstract

Background: Fear of childbirth is a common problem in pregnant women. A health professionals, as a responsible person, plays an important role in providing advice and giving care to mothers during pregnancy, delivery, and the postpartum period.

Aim: This study was conducted to develop an evidence-based practice guide to coping with childbirth.

Method: The study was conducted methodologically on August 1, 2018 and April 1, 2020 to develop evidence-based practice guidelines for coping with childbirth. The Appraisal of Guidelines Research and Evaluation-II protocol was used in the development process of the guideline. The Grading of Recommendations Assessment, Development, and Evaluation tool was used to evaluate the evidence quality of the studies.

Results: Evidence of guidelines was obtained from the review of 13 randomized controlled trials, 13 pretest-posttest control group quasi-experimental studies, and 5 pretest-posttest controlled quasi-experimental studies. The studies were gathered under 10 intervention titles that are effective in reducing fear of childbirth. The interventions included that psychoeducational group therapy with moderate evidence, individual counseling program, intrapartum supportive care, cognitive behavior therapy, antenatal hypnosis training, group art therapy, Roy adaptation model-based intermittent labor support, and self-efficacy-orient ed psychological counseling with low degree of evidence, antenatal education, and heart rate variability biofeedback with very low degree of evidence.

Conclusion: It is expected that the fear of birth will be reduced and the negative outcomes of birth fear in the mother and baby will be prevented by using the guidelines developed to reduce the fear of birth in the health care offered to women.

Keywords: Birth experience, care, evidence-based practice, fear of childbirth, guide

Introduction

Pregnancy and childbirth are a transitional stage or existential process that women who have children must go through. This process is a versatile and unique experience for every woman and is influenced by social characteristics.[1] Women's experiences and expectations regarding pregnancy and childbirth inherently encompass positive and negative emotions, including joys and beliefs, as well as worries and fears.[2] For this reason, childbirth can turn into a frightening experience for some women.[3] Fear of childbirth is defined as the fear of giving birth that hinders normal psychological preparation for birth and complicates the transition to parenthood.[4] It is also a common problem affecting women's health and well-being before, during, and after pregnancy. In international and national studies, the rates of fear of childbirth in pregnant women range from 6% to 60%.[1,5-8] This situation can cause women to experience negative pregnancy outcomes and psychological diseases.[9,10] However, fear of childbirth affects women's decision on the mode of delivery and increases cesarean section rates.[11,12] For these reasons, reducing the fear of childbirth with a suitable intervention can facilitate a physically and mentally safe birth experience and transition to parenthood.[13,14]

It is emphasized in the literature that evidence-based clinical practice guidelines make important contributions to helping clinicians decide on the best health care to offer in the face of certain clinical conditions or health problems.[15] Well-prepared quality evidence-based practice guidelines enhance care improvement by providing the best evidence-based care choices that are consistent with individuals' needs and preferences.[16] Clinical practice guidelines inform clinicians about which interventions are most

*This study was carried out as a doctoral thesis.

Cite this article as: Öztürk GG, Karaçam Z. Guide to coping with the fear of birth. *J Educ Res Nurs.* 2022;19(4):445-455.

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Received: September 21, 2020
Accepted: June 24, 2021
Publication Date: December 1, 2022

beneficial, which are not supported by evidence, and which interventions are potentially harmful.[17] It also provides literature review and synthesis of evidence for clinicians with time constraints to keep their knowledge up to date.[18] For all these reasons, fear of childbirth is an important issue for women's and newborn health and needs to be addressed. Developing guidelines to reduce fear of childbirth can provide clinicians with the best available evidence and can significantly contribute to reducing fear of childbirth in women and preventing the negative consequences of fear of childbirth.

When the studies are examined, it is seen that there are many different interventions used to improve women's coping with the fear of childbirth.[3,4] However, the fear of childbirth continues to be a problem that women commonly experience, which negatively affects their lives and quality of life.[19] On the other hand, the care provided by midwives, nurses, and other health professionals during pregnancy and delivery has the power to reduce the fear of childbirth. However, it is observed that caregivers in our country do not routinely question the fear of childbirth during prenatal follow-ups and delivery, and they do not know how to manage this situation when they encounter women with fear of childbirth. Additionally, we need comprehensive studies on this subject because of the continuation of the increase in cesarean section rates in our country, and the fact that the fear of childbirth has a significant share in this increase as revealed.[20,21] Moreover, there is no evidence-based effective guide program to reduce the fear of childbirth in the literature. Therefore, the aim of this study is to develop an evidence-based practice guide to cope with the fear of childbirth.

Materials and Methods

The study was carried out methodologically. A guide has been developed that can be used by midwives, nurses, and clinicians providing health care in order to reduce the fear of childbirth in pregnant women. The AGREE-II (Appraisal of Guidelines Research and Evaluation) protocol was used in the development process of this guide (https://www.agreetrust.org/agree-ii/).[22] The development phase of the guideline includes identifying priority research questions and conclusions, literature review, selection of articles, evaluation and synthesis of evidence, formulation of recommendations, implementation, dissemination, applicability, and updating of the guideline.

Identifying Priority Questions and Outcomes

In this study, it was primarily aimed to determine (1) what are the interventions used to reduce the fear of birth and (2) the evidence levels of the interventions used to reduce the fear of birth. The content of the guide created as a result of the literature review is as follows:

Subject of the guide: Reducing the fear of childbirth in pregnant women

Aim of the guide: To reduce the fear of childbirth in pregnant women

Area of the guide (disease/condition): Fear of childbirth

Category of the guide: Prevention/reduction

Target users of the guide: Midwives, nurses, obstetricians, general medical practitioners, managers of maternal and child health programs, and health professionals responsible for the development of regional, national, and local health protocols and policies.

Target population: Pregnant women

Scope of the guide: The PICOS tool was used to create health questions with specific boundaries on the subject in order to reach scientific evidence. For this purpose:

- Population (P): Pregnant
- Intervention (I): Interventions to reduce fear of childbirth
- Comparison (C): Routine maintenance
- Outcomes (O): Primary outcomes were the fear of childbirth. The secondary outcomes were labor pain, readiness for childbirth, maternal adjustment, pregnancy acceptance, birth self-efficacy, birth satisfaction, birth duration, perceived support and sense of control, birth expectancy, anxiety and depression, future birth preferences, change in personal goals, and change in negative and positive emotions.
- Study design (S): It was determined experimentally and quasi-experimentally.

Searching Strategy

The literature search for this guide was carried out over August 1, 2018, and September 31, 2018, and checked for current publications in March 2020. Only studies in English and Turkish were included. PubMed, ScienceDirect, Cochrane, Google Scholar, National Thesis Center, and Turkey Citation Index databases were used in the literature search. Initially, the keywords were determined as "doğum korkusu" and "doğum ve korku" for Turkish databases, "fear of childbirth" and "birth and fear" for English databases in the systematic literature review. Regarding the determined literature search strategy and guideline, it is aimed to reach all current evidence that can be used to reduce the fear of childbirth.

Selection of Studies

Titles and abstracts of meta-analyses and randomized and non-randomized experimental studies related to the health question of the guideline were reviewed. As a result of the systematic screening, 31 articles, of which 8 were after the second screening, were determined in accordance with the criteria and included in the study. The research scheme related to the literature review and selection process is given in Figure 1.

Evaluation of Evidence Strength and Quality

The GRADE (Grading of Recommendations Assessment, Development, and Evaluation) tool recommended by the Cochrane working group was used to evaluate the evidence quality of the studies (https://gdt.gradepro.org/app/handbook/handbook.html). A GRADE evidence profile was prepared for each quantitative outcome and evidence tables were created.

The GRADE system ranks the quality of the evidence and presents the most important outcome findings in summary tables along with the GRADE tool. The use of GRADE is now mandatory to assess the quality of evidence.[23] Accordingly, the certainty of evidence for each outcome was rated as "high," "moderate," "low," or "very low," based on a set of criteria. The GRADE begins with a high for randomized controlled trial (RCT) and low for non-RCTs. The degree of evidence, initially determined by the design of the study, can be lowered or increased by considering the 8 evaluation criteria.[23] The quality of evidence can be reduced by examining 5 criteria: risk of bias, inconsistency, indirectness, imprecision, and publication bias. For these 5 criteria:

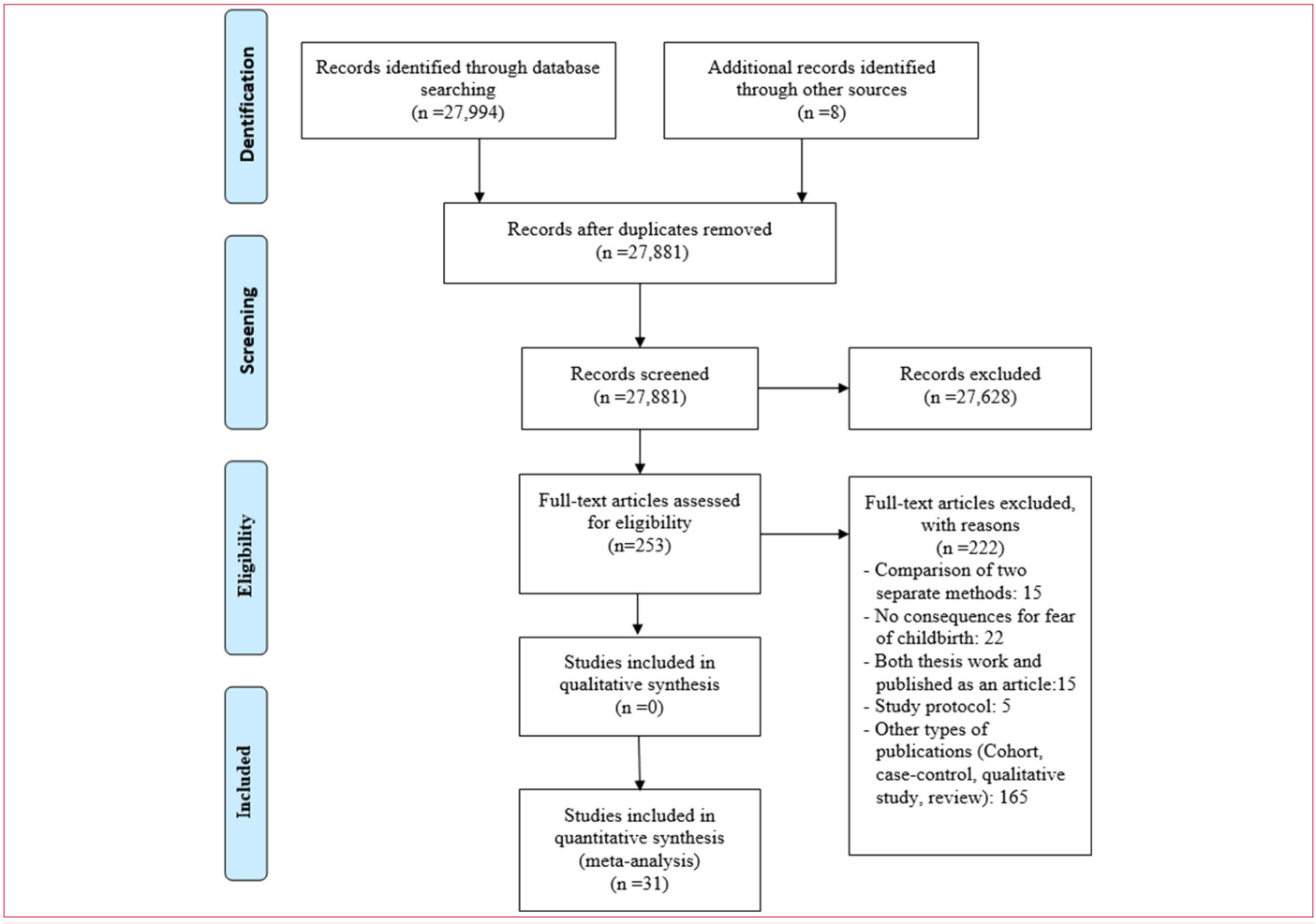

Figure 1. Selection of studies and participation process.

- No serious concern exists, do not downgrade quality from the baseline quality (e.g., high for RCTs)
- Serious concern exists, downgrade the evidence 1 level, e.g., from high to moderate (–1)
- Very serious concern exists, downgrade the evidence 2 levels, e.g., from high to low (–2)

Again, the quality of evidence can be improved if the criteria are large magnitude of effect, dose response, and the effect of all plausible confounding factors would be to reduce the effect (where an effect is observed) or suggest a spurious effect (when no effect is observed). For the criteria of improving the quality of evidence, evidence can be upgraded once (+1) or twice (+2).[23]

Classification of Recommendations

The recommendations were grouped according to the evidence recommendation category developed by the World Health Organization guideline development group in Table 1.[24] While deciding the recommendation category for each intervention, the impact of the guideline in terms of its primary results, value given by the target population, resource requirements and cost-effectiveness, acceptability, and feasibility by the target population and practitioners were evaluated together by the researchers.

Developing of the Guide and Referee Evaluations

This study was carried out as a doctoral thesis. The guideline was evaluated and finalized by the thesis monitoring and exam committee, which includes a total of 5 faculty members, 2 from the obstetrics and gynecology department and 3 from the midwifery department.

Evidence and Recommendations

Evidence for the efficacy of interventions comes from a review of 13 RCTs, 13 pretest-posttest quasi-experimental studies with the control group, and 5 pretest-posttest controlled quasi-experimental studies. This guide includes 10 intervention suggestions to reduce the fear of childbirth. In this section, the interventions for reducing the fear of childbirth, the GRADE evidence profile tables created for each recommendation, and their recommendations are summarized (Tables 2-4). Detailed explanations of each intervention are given as follows:

Recommendation 1. Psychoeducational Group Therapy

Evidence regarding the effects of psychoeducational group therapy on fear of childbirth was obtained from a review of 4 RCTs conducted in Finland (2), Australia (1), and Iran (1). The sample sizes of the intervention groups and control groups were between 60-131 and 62-303 pregnants, respectively. This intervention included childbirth

Table 1. World Health Organization Guideline Development Group Evidence Recommendation Category

Recommendation Category	Descriptions
Recommended	This category indicates that the intervention or option should be implemented.
Not recommended	This category indicates that the intervention or option should not be implemented.
Recommended only in specific contexts	This category indicates that the intervention or option is applicable only to the condition, setting or population specified in the recommendation, and should only be implemented in these contexts.
Recommended only in the context of rigorous research	This category indicates that there are important uncertainties about the intervention or option. In such instances, implementation can still be undertaken on a large scale, provided that it takes the form of research that is able to address unanswered questions and uncertainties related both to the effectiveness of the intervention or option and to its acceptability and feasibility.

Source: World Health Organization.[24]

psychoeducation to reduce the fear of birth and issues supporting the transition to parenthood. It was applied at regular intervals throughout pregnancy. Four RCTs[25-28] reported that psychoeducational group therapy reduced the fear of childbirth. An RCT[26] showed that it decreased negative emotions and increased positive emotions. Furthermore, this trial reported that it increased the change of the personal goals of the pregnant women toward the parenting role. In another RCT,[28] it was reported that psychoeducational group therapy increased maternal adjustment and reduced postnatal depression symptoms. The GRADE level of evidence for this recommendation is moderate and is recommended for reducing the fear of childbirth.

Recommendation 2. Prenatal Education

Evidence regarding the effects of prenatal education on fear of birth was obtained from studies conducted in Finland (1), Malawi (1), and Turkey (8). Evidence was obtained from the review of 1 RCT, 6 pretest-posttest quasi-experimental studies with control group, and 3 pretest-posttest controlled quasi-experimental studies. The intervention group of the studies was between 30 and 235 participants, and the control group was between 32 and 228 participants. Interventions included childbirth preparation training given to pregnant women at certain intervals during pregnancy to reduce the fear of childbirth. An RCT[29] and 8 quasi-experimental studies[8,30-36] showed that prenatal education reduced the fear of childbirth. In contrast, a quasi-experimental study reported that this intervention was not effective for reducing the fear of childbirth.[37] A quasi-experimental study[31] showed that this intervention reduced labor pain, a previous study[8] reported that it increased acceptance of pregnancy and maternal role adjustment, a previous study[37] showed that it increased readiness for delivery, and another quasi-experimental study[33] showed that it increased

Table 2. Interventions Used to Reducing Fear of Birth

Interventions Used to Reduce Fear of Childbirth	Number of Studies	The Number of Participants	Certainty of GRADE	Recommendation Category
Psychoeducational Group Therapy	4	1099	⨁⨁⨁◯ Moderate	Recommended
Prenatal Education	10	1318	⨁◯◯◯ Very low	Recommended
Individual Counseling Program	2	196	⨁⨁◯◯ Low	Recommended
Intrapartum Continuous Supportive Care	3	213	⨁⨁◯◯ Low	Recommended
Cognitive Behavioral Therapy	4	273	⨁⨁◯◯ Low	Recommended
Heart Rate Variable Biofeedback	1	38	⨁◯◯◯ Very low	Recommended only in the context of rigorous research
Antenatal Hypnosis Training	3	818	⨁⨁◯◯ Low	Recommended
Group Art Therapy	1	30	⨁⨁◯◯ Low	Recommended only in specific contexts
Self-Efficacy-Oriented Psychological Counseling	2	236	⨁⨁◯◯ Low	Recommended
Intermittent Birth Support Based on the Roy adaptation model	1	60	⨁⨁◯◯ Low	Recommended

Table 3. GRADE Evidence Profile Table

Certainty Assessment							Summary of Findings					
							The Number of Participants		Effect			
Number of Studies	Study Design	Risk of Bias	Inconsistency	Indirectness	Imprecision	Other Considerations	Intervention	Routine	Relative (95% CI)	Absolute (95% CI)	Certainty	Importance
Individual counseling program compared to routine care for fear of childbirth												
2	RCT (1)	Not serious	Serious: Homogeneity between groups was uncertain in quasi-experimental study	Not serious	Serious: Large effect size in RCT	Not serious	45 (RCT)	45 (RCT)	–	–	⨁⨁◯◯	Critically important
	Quasi-experimental with control group (1)						53 (Quasi-experimental study)	53 (Quasi-experimental study)			Low	
Psychoeducational group therapy vs. routine care for fear of childbirth												
Outcome: Fear of childbirth												
4	RCT (4)	Not serious	Not serious	Not serious	Serious*: Large effect size in RCT (2)	Not serious	397 (RCT)	702 (RCT)	–	–	⨁⨁⨁◯Moderate	Critically important
Intrapartum continuous supportive care compared to routine care for fear of childbirth												
Outcome: Fear of childbirth												
3	RCT (2)	Serious**:	Not serious	Not serious	Serious**: Large effect size in RCT	Not serious	63 (RCT)	60(RCT)	–	–	⨁⨁◯◯	Critically important
	Pretest-posttest quasi-experimental with control group (1)	Management of missing data is not explained in RCT, quasi-experimental study had methodological limitations.					44 (Quasi-experimental study)	46 (Quasi-experimental study)			Low	
Cognitive behavioral therapy compared to routine care for fear of childbirth												
Outcome: Fear of childbirth												
4	RCT (2) Pretest-posttest quasi-experimental with control group (1) Pretest-posttest controlled quasi-experimental (1)	Serious***: Management of missing data, randomization, and blinding were unclear in RCT (1)	Not serious	Not serious	Serious***: Large effect size in quasi-experimental study (2)	Not serious	51 (RCT) 80 (Quasi-experimental study)	83 (RCT) 59 (Quasi-experimental study)	–	–	⨁⨁◯◯ Low	Critically important

(*Continued*)

Table 3. GRADE Evidence Profile Table (*Continued*)

Certainty Assessment							Summary of Findings					
							The Number of Participants		Effect			
Number of Studies	Study Design	Risk of Bias	Inconsistency	Indirectness	Imprecision	Other Considerations	Intervention	Routine	Relative (95% CI)	Absolute (95% CI)	Certainty	Importance
Heart rate variable biofeedback compared to routine care for fear of childbirth												
Outcome: Fear of childbirth												
1	Pretest-posttest quasi-experimental with control group	Serious: Study design and missing data were not well explained	Not serious	Serious: Results did not fully reflect the consequences of the intervention for fear of childbirth	Not serious	Not serious	18	20	–	–	⨁◯◯◯ Very low	Important
Antenatal hypnosis training compared to routine care for fear of childbirth												
Outcome: Fear of childbirth												
3	RCT (2) Pretest-posttest controlled quasi-experimental (1)	Not serious	Serious****: There was heterogeneity between groups in RCT (1)	Not serious	Serious****: RCT (1) and pretest-posttest controlled quasi-experimental study (1) had large effect size	Not serious	515 (RCT) 51 (Quasi-experimental study)	252 (RCT)	–	–	⨁⨁◯◯ Low	Critically important
Group art therapy compared to routine care for fear of childbirth												
Outcome: Fear of childbirth												
1	Pretest-posttest quasi-experimental with control group	Serious: Evidence was from a single quasi-experimental study	Not serious	Not serious	Serious: The effect size of the study could not be calculated due to the incomplete reporting of the results.	Not serious	15	15	–	–	⨁⨁◯◯ Low	Important
Self-efficacy oriented psychological counseling compared to routine care for fear of childbirth												
Outcome: Fear of childbirth												
2	RCT (1) Pretest-posttest quasi-experimental with control group (1)	Serious: Management of missing data, randomization, and blinding in RCT were unclear	Not serious	Not serious	Serious: RCTs had large effect sizes	Not serious	53 (RCT) 65 (Quasi-experimental study)	53 (RCT) 65 (Quasi-experimental study)	–	–	⨁⨁◯◯ Low	Critically important

(*Continued*)

Table 3. GRADE Evidence Profile Table (*Continued*)

Certainty Assessment							Summary of Findings					
							The Number of Participants		Effect			
Number of Studies	Study Design	Risk of Bias	Inconsistency	Indirectness	Imprecision	Other Considerations	Intervention	Routine	Relative (95% CI)	Absolute (95% CI)	Certainty	Importance
Prenatal education compared to routine care for fear of childbirth												
Outcome: Fear of childbirth												
10	RCT (1) Pretest-posttest controlled quasi-experimental (3) Pretest-posttest quasi-experimental with control group (6)	Serious: Most of the evidence was from quasi-experimental studies	Serious*****: In the quasi-experimental study (1), homogeneity between groups could not be achieved.	Serious******: Quasi-experimental study (1) had indirect population, RCT (1) had an outcome report that did not cover the research questions	Serious*******: RCTs (1) and quasi-experimental (6) studies had large effect sizes	Not serious	235 (RCT) 494 (quasi-experimental study)	228 (RCT) 361 (quasi-experimental study)	–	–	⨁◯◯◯ Very low	Critically important
Intermittent birth support based on the Roy adaptation model compared to routine care for fear of childbirth												
Outcome: Fear of childbirth												
1	Pretest-posttest quasi-experimental with control group	Serious: Evidence was from a single quasi-experimental study	Not serious	Not serious	Serious: The study had a large effect size	Not serious	30	30	–	–	⨁⨁◯ Low	Critically important

*The effect size was determined as 1.44 in the study of Ario et al (2018), and as 0.93 in the study of Kordi et al (2017). **In the study of Uludağ (2017), the management of missing data was not explained and the effect size was determined as 1.44. There are methodological limitations in the study of Öztürk et al (2014). ***In the study of Ghasemi et al (2017), the management of missing data, randomization, and blinding did not clear. The effect size was determined as 1.03 in the study of Uçar and Gölbaşı (2018), and as 0.95 in the study of Nieminen et al (2016). ****There was heterogeneity and large effect size between the intervention and control groups in the study of Yarici Atis and Rathfisch (2018). In the study of Bülez et al (2019), the effect size was determined as 1.7. *****In the study of Karabulut et al (2016), a significant difference was found between the education levels of the intervention and control groups. ******In the study of Mete et al (2017), 97.4% of the intervention group were university graduates and could not represent the general population. Although Haapio et al (2016) obtained the fear of childbirth scale scores in their study, post-intervention score changes were not reported clearly in the reporting part. *******Akın et al (2018), İşbir et al (2016), Karabulut et al (2016), Kızılırmak and Başer (2016), Serçekuş and Başkale (2016), Haapio et al (2016), and Mete et al (2017) had a large effect size.

Table 4. Interventions and Scientific Evidence to Cope with Fear of Birth in Pregnant Women

Interventions	Comments	GRADE Rating	Suggestion Category
Psychoeducational group therapy	It reduces fear of childbirth, negative feelings about birth, and symptoms of postnatal depression. It increases positive feelings about childbirth, increases pregnant women's personal goals toward the parenting role, and maternal adjustment.	Moderate	Recommended
Prenatal education	It reduces the fear of childbirth and labor pain. It increases acceptance of pregnancy, maternal role adaptation, readiness for delivery, birth self-efficacy, rates of preference for vaginal delivery in the future, and perceived support and satisfaction at birth.	Very low	Recommended
Individual counseling program	It reduces the fear of childbirth. It increases satisfaction with the care provided in the birth and postpartum period.	Low	Recommended
Intrapartum continuous supportive care	It reduces the fear of childbirth, labor pain, latent, active, transitional phase of labor, duration of the second stage, and cost of delivery. It increases the sense of support and control perceived in the intrapartum period and the satisfaction with birth.	Low	Recommended
Cognitive behavioral therapy	It reduces the fear of birth, labor pain, and anxiety in the last month of pregnancy. It increases birth satisfaction and birth self-efficacy.	Low	Recommended
Heart rate variable biofeedback	It is not effective in reducing fear of childbirth.	Very low	Recommended only in the context of rigorous research
Antenatal hypnosis training	It reduces the fear of birth, labor pain, the duration of the second and third stages of labor, the time to start the first breastfeeding, and the rate of having a difficult birth experience. It increases positive birth expectations of women.	Low	Recommended
Group art therapy	It reduces the fear of childbirth, anxiety, and depression symptoms.	Low	Recommended only in specific contexts
Self-efficacy-oriented psychological counseling	It reduces the fear of childbirth. It increases birth self-efficacy.	Low	Recommended
Intermittent birth support based on the Roy adaptation model	It reduces the fear of childbirth, labor pain, labor duration, and the use of oxytocin in labor. It increases birth satisfaction.	Low	Recommended

the rates of preferring vaginal birth in the future and perceived support and satisfaction at birth. Again, 2 quasi-experimental studies[34,35] reported that prenatal education increased birth self-efficacy, while, unlike this result, one quasi-experimental study[32] determined that the intervention did not increase birth self-efficacy. The GRADE evidence level of the studies was determined to be very low, but is recommended for reducing the fear of childbirth.

Recommendation 3. Individual Counseling Program

Evidence regarding the effects of an individual counseling program on fear of childbirth was obtained from a review of 2 studies conducted in Iran (1) and Sweden (1). Evidence was obtained from an RCT and a quasi-experimental study with a control group. The intervention group of the studies was between 45 and 53 participants and the control group was between 45 and 53 participants. Interventions included individual counseling given to pregnant women at certain intervals during pregnancy to reduce the fear of childbirth. An RCT showed that an individual counseling program reduced the fear of childbirth.[38] Controversially, the quasi-experimental study reported that the individual counseling program did not reduce the fear of childbirth, but increased satisfaction with the prenatal education and the care provided during the birth and postpartum period.[39] The GRADE evidence level of the studies was determined to be low, but is recommended for reducing the fear of childbirth.

Recommendation 4. Intrapartum Continuous Supportive Care

Evidence regarding the effects of continuous intrapartum supportive care on fear of childbirth was obtained from studies conducted in Turkey.[3] Evidence was obtained from 2 RCTs and a quasi-experimental study with a control group. The intervention group of the studies was between 30 and 44 participants and the control group was between 30 and 46 participants. Interventions included continuous

supportive care given to pregnant women during labor (during the latent, active, and transitional phase) and in the early postpartum period. Intrapartum continuous supportive care presented in an RCT was developed based on the hypnobirthing philosophy.[40] Two RCTs[40,41] and one quasi-experimental study[42] reported that the continuous supportive care given during the birth process reduced the fear of childbirth and labor pain. Again, an RCT[41] and a quasi-experimental study[42] showed that this intervention increased the perceived sense of support and control in the intrapartum. In addition, an RCT[40] reported that continuous intrapartum supportive care reduced the duration of the latent, active, transitional phase; the second stage of labor; and the cost of delivery, while increasing satisfaction with delivery. The GRADE evidence level of the studies was determined to be low and is recommended for reducing the fear of childbirth.

Recommendation 5. Cognitive Behavioral Therapy

Evidence for the effects of cognitive behavioral therapy on the fear of childbirth was obtained from a review of 4 studies conducted in Turkey (1), Iran (1), Germany (1), and Sweden (1). Evidence was obtained from 2 RCTs, a pretest-posttest controlled quasi-experimental study, and a pretest-posttest quasi-experimental study with control group. The intervention group of the studies was between 28 and 52 participants and the control group was between 30 and 59 participants. Interventions included cognitive behavioral therapy consisting of 3-8 sessions during pregnancy to reduce the fear of childbirth. One RCT[43] and two quasi-experimental studies[7,44] reported that cognitive behavioral therapy reduced the fear of childbirth. Contrary to this result, it was reported that cognitive behavioral therapy was not effective in reducing the fear of childbirth in an RCT.[45] One quasi-experimental study[44] showed that this intervention reduced labor pain and increased satisfaction with birth. Another RCT[43] showed that it increased birth self-efficacy. In addition, an RCT[43] reported that cognitive behavioral therapy reduced anxiety in the last month of pregnancy, while an RCT[45] reported no effect on anxiety. This intervention has a low GRADE level of evidence and is recommended for reducing the fear of childbirth.

Recommendation 6. Heart Rate Variable Biofeedback

Evidence for the effects of heart rate variable biofeedback intervention on fear of childbirth was obtained from a pretest-posttest quasi-experimental study with control group conducted in Japan. The intervention group of the study was 18 participants, and the control group was 20 participants. The intervention included biofeedback application and fetal heart rate monitoring that pregnant women can do at home from the first weeks of pregnancy. In the study, it was reported that the intervention was not effective in reducing the consequences of fear of childbirth.[46] The GRADE level of evidence is very low and is recommended only in the context of rigorous research available.

Recommendation 7. Antenatal Hypnosis Training

Evidence on the effects of antenatal hypnosis training on fear of childbirth was obtained from 2 RCTs and 1 pretest-posttest controlled quasi-experimental study conducted in Turkey (2) and Denmark (1). The intervention group of the studies was between 30 and 485 participants and the control group was between 30 and 222 participants. Interventions included hypnosis training, which takes place between 3 and 12 hours during pregnancy. Two RCTs[47,48] and 1 quasi-experimental study[49] showed that antenatal hypnosis training reduced the fear of childbirth. An RCT[48] showed that hypnosis training positively changed women's birth expectancies. Also, an RCT[47] showed that it reduced the duration of the second and third stages of labor, the time to start breastfeeding, and the rate of experiencing difficult birth. Another RCT[47] reported that antenatal hypnosis training reduced pain felt during the latent, active, and transitional phases of labor, while a quasi-experimental study[49] reported no effect on labor pain. This intervention has a low GRADE level of evidence and is recommended for reducing the fear of childbirth.

Recommendation 8. Group Art Therapy

Evidence regarding the effects of group art therapy on the fear of childbirth was obtained from the examination of a quasi-experimental study with a pretest-posttest control group conducted in Turkey (1). The intervention group of the study included 15 participants and the control group included 15 participants. Interventions included group art therapy consisting of 6 sessions (each session 130 minutes) during pregnancy to reduce the fear of childbirth. This study showed that group art therapy reduced the symptoms of fear of childbirth, anxiety, and depression.[50] This intervention has a low GRADE level of evidence and is recommended only in specific contexts for reducing the fear of childbirth.

Recommendation 9. Self-Efficacy-Oriented Psychological Counseling

Evidence for the effects of self-efficacy-focused counseling on fear of childbirth was obtained from the review of an RCT and a pretest-posttest quasi-experimental study with a control group in Iran (2). The intervention group of the studies was between 53 and 65 participants and the control group was between participants. Interventions included counseling to reduce the fear of childbirth, various speaking methods, question-answer, group discussion, demonstration techniques, and psychological counseling consisting of 3-6 sessions including peer education. In an RCT[51] and a quasi-experimental study,[52] it was reported that self-efficacy-focused counseling reduced fear of birth and increased birth self-efficacy. This intervention has a low GRADE level of evidence and is recommended for reducing the fear of childbirth.

Recommendation 10. Intermittent Birth Support Based on the Roy Adaptation Model

Evidence regarding the effects of intermittent birth support based on the Roy adaptation model on fear of childbirth was obtained from the examination of a quasi-experimental study with a pretest-posttest control group conducted in Turkey (1). The intervention group of the study consisted of 30 participants and the control group consisted of 30 participants. The intervention included intermittent birth support, which was prepared based on the Roy adaptation model and constituted 40% (20-25 minutes per hour) of the entire labor process. This study reported that intermittent birth support reduced the fear of birth, labor pain, the use of oxytocin in labor, shortened the delivery times, and increased satisfaction with the birth.[53] This intervention has a low GRADE level of evidence and is recommended for reducing fear of childbirth.

Application of the Guide

This guide has been developed for use by midwives, nurses, and clinicians, providing health care in order to reduce the fear of birth in pregnant women. A summary of the interventions recommended

to reduce women's fear of childbirth is presented in the guide. It is expected that the guide will be used to the health care offered to women, to reduce the fear of childbirth, and to prevent the negative consequences of the fear of childbirth in the mother and the baby. The best intervention should be offered individually by health professionals to reduce the fear of childbirth that women commonly experience. There are 10 interventions that can be used to reduce the fear of childbirth in this guide. In order to prevent the negative consequences of fear of childbirth for women and babies, all women should be provided with evidence-based, equitable, and quality care by health professionals. For this reason, it is recommended that midwives, nurses, and other health professionals question the thoughts, expectations, and fears of all pregnant women during antenatal care services. Also, they use this guide in individually determined interventions to reduce the fear of childbirth, knowing that each woman's individual fears may be different.

Dissemination of the Guide

This guide was carried out as a doctoral thesis and is available through open access from the National Thesis Center. In addition, free access to the guide is provided through this publication.

Applicability of the Guide

Implementation of one or more of the interventions in this guide may require reorganizing the antenatal and intrapartum care and redistribution of health resources. Therefore, potential barriers to the implementation of this guide are as follows:

- Lack of human resources with the necessary expertise and skills to implement interventions that require specialized knowledge.
- There may be deficiencies in the infrastructure, equipment, conditions, time, and financial support necessary for the interventions to be offered to women outside of routine care.

Updating of the Guide

The researchers who created this guide will continue to monitor new interventions to reduce the fear of childbirth in women and current studies on existing evidence. If concerns arise over time regarding the validity of any recommendation, the recommendation will be updated.

Ethics Committee Approval: N/A

Informed Consent: N/A

Peer-Review: Externally peer-reviewed.

Author Contributions: Concept – G.G.Ö.; Design – G.G.Ö., Z.K.; Supervision – Z.K.; Resources – G.G.Ö.; Materials – G.G.Ö.; Data Collection and/or Processing – G.G.Ö.; Analysis and/or Interpretation – G.G.Ö., Z.K.; Literature Search – G.G.Ö., Z.K.; Writing Manuscript – G.G.Ö., Z.K.; Critical Review – Z.K.

Acknowledgments: The authors would like to thank the midwives, nurses, and administrators working in Aydın Maternity and Children's Hospital and Family Health Centers for their contributions to the data collection. They also thank the women who participated in the study for their contributions.

Declaration of Interests: The authors have no conflicts of interest to declare.

Funding: This work was supported by the Turkish Higher Education Council Education Program (Project Number: 15012, 2020).

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