



ORIGINAL ARTICLE

A psychoprophylaxis program for obstetric care during COVID'19 confinement

Programa de psicoprofilaxis obstétrica durante el confinamiento por la pandemia de la COVID-19

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Received: 3 July 2020

Accepted: 20 October 2020

Published: 2 December 2020

Citar como: Machado Diaz M, Gómez Fonseca I, Ramírez Puig NM, López Pérez N. Programa de psicoprofilaxis obstétrica durante el confinamiento por la pandemia de la COVID-19. Rev Ciencias Médicas [Internet]. 2020 [citado: fecha de acceso]; 24(6): e4584. Disponible en: <http://revcmpinar.sld.cu/index.php/publicaciones/article/view/4584>

ABSTRACT

Introduction: social distancing during COVID-19 pandemic leads to home confinement, being rigorous in vulnerable groups, among them pregnant women. Consequently, the continuity of the psychoprophylaxis program for obstetric care; which is carried out in the healthcare area is postponed, this program contributes to the preparation of pregnancy, delivery and puerperium, influencing on the good of the mother to be.

Objective: to design a practical and simple program of psychoprophylaxis for obstetric care that pregnant women can practice during home confinement, allowing the continuity of delivery preparation.

Methods: a literature review with reference to psychoprophylactic exercises was conducted; which can be of simple guidance by part of the medical personnel and to be practiced by pregnant women themselves, allowing the continuity of the preparation process.

Results: the evidence points out the importance of the psychoprophylaxis program for obstetric care and the benefits on pregnancy, delivery and puerperium process, along with the need to maintain the continuity of the program during home confinement.

Conclusions: the continuity of the planned prophylactic exercises, linked to an adequate feeding, relaxation periods and follow the guidance of the basic team of healthcare, is essential to promote a required and favorable environment for a perfect harmony pregnancy, a risk-free delivery and a successful recovery of the mother to be and the newborn.

Keywords: Social Isolation; Pregnancy; Parturition; Postpartum Period; Coronavirus Infections.

RESUMEN

Introducción: el aislamiento social durante la pandemia de COVID-19 conlleva al confinamiento en casa, para los grupos que resultan vulnerables como lo las gestantes, es más riguroso. Como resultado se pierde la continuidad del programa de psicoprofilaxis obstétrica que se realiza en cada área de salud y que tantos beneficios aporta a la preparación para el proceso de gestación, parto y puerperio de la futura mamá.

Objetivo: diseñar un programa de psicoprofilaxis sobre parto práctico y sencillo que pueda ser realizado por la gestante durante su confinamiento en el hogar para continuar con su preparación.

Métodos: revisión bibliográfica sobre los ejercicios psicoprofilácticos que puedan ser fácilmente orientados por el personal médico y sencillo de realizar por parte de las gestantes, para continuar con su proceso de preparación.

Resultados: la evidencia señala la importancia que los ejercicios de psicoprofilaxis obstétrica y los beneficios que tienen sobre el proceso gestacional, el parto y el puerperio. De ahí la necesidad de mantener la continuidad del programa durante el confinamiento.

Conclusiones: la continuidad de los ejercicios profilácticos programados, unido a la alimentación adecuada, el descanso y el seguimiento de las orientaciones brindadas por el equipo básico de salud, promueven el ambiente favorable necesario para un embarazo armonioso, un parto sin riesgos y una recuperación exitosa de la madre y el bebé.

Palabras clave: Aislamiento Social; Gestación; Parto; Puerperio; COVID-19.

INTRODUCTION

In December 2019, a series of cases of pneumonia caused by a new coronavirus were identified in Wuhan (China). This novel coronavirus has different names: 2019-nCoV according to the WHO and SARS-CoV-2 was according to the International Committee on Virus Taxonomy. The disease that causes it has been called 2019-nCoV. On January 7, 2020, the novel coronavirus was officially announced by the Chinese authorities as the causal agent of this infection.⁽¹⁾

The high ineffectiveness and the flow of travel from Wuhan to other cities in China, Asia and the world made it impossible to contain the virus; so many still asymptomatic cases began to spread.^(2,3)

The SARS-CoV-2 coronavirus pandemic declared on March 11, 2020 by the World Health Organization (WHO),⁽⁴⁾ has led several countries to adopt non-pharmacological and combined measures,⁽⁵⁾ to contain and mitigate the spread of the virus in their populations, one of the main measures being social isolation,⁽⁶⁾ including home confinement to promote distancing, since close contact with infected people increases the likelihood of infection.⁽⁷⁾

Obstetric psychoprophylaxis (OPP), as a fundamental tool in comprehensive care, certainly has a relevant impact on the health of mothers and babies. Since the illustrious Professor Dr. Roberto Caldeyro Barcia (Montevideo, 1921-1996), perinatologist, promoter and Director of the Latin American Center for Perinatology Care (DLACPC/WHO), Montevideo, Uruguay, demonstrated and spread its value since the 1970s, there is no doubt about the important maternal and perinatal benefits offered by OPP, which also benefits the health team.^(8,9) It consists of the physical and mental preparation of the pregnant woman for the moment of delivery, seeking the protection of the mother and the newborn. Establishing the learning and

adaptation to a new intellectual, affective and corporal situation.⁽¹⁰⁾

Relaxation is an effective weapon to achieve mental balance and self-control of women in a stressful situation such as childbirth. The knowledge and mastery of some relaxation technique allows reducing discomfort, nervousness, tension, tiredness and anguish during labor, being able to control pain more adequately. Relaxation techniques aim to oppose the mechanisms of stress, helping the body to achieve a more balanced state.⁽¹¹⁾

In the field of toco-physic-psychotherapy, it includes a comprehensive preparation with exercises for pregnant women aimed at improving body and mental status, the World Health Organization (WHO) recommends these suitable exercises to their positive and beneficial effects.⁽¹²⁾

Due to the benefits attributed to the practice of obstetric psychoprophylaxis, it is intended that the article may serve as a guide and basis for review by healthcare personnel and the general population for a good quality pregnancy, successful delivery and early recovery, in addition to mitigating those symptoms of stress that may appear as a result of confinement for the prevention of COVID-19 infection.

For these reasons, it was proposed as an objective to design a practical and simple psychoprophylaxis program for delivery, which can be carried out by the pregnant woman during her confinement in her home and the continuity of her preparation for the labor.

METHODS

It was a descriptive study supported on a scientific literature search using as keywords obstetric psychoprophylaxis, social isolation, pregnancy, delivery/labor, puerperium, COVID-19 in PubMed, SciELO network, through Google Academic search engine. Those documents that offered out-of-date recommendations were excluded, as well as those that proposed exercise routines that would need to be performed by technical personnel, in a place away from home, specific accessories and difficult to guide, and at a distance due to the complexity of their development.

DEVELOPMENT

The exercises of the program for obstetric psychoprophylaxis during confinement can be carried out by pregnant women in any of their trimesters with or without the presence of associated diseases, always after the assessment by qualified personnel who are the most responsible for indicating or contraindicating the practice of these exercises, including modifications or elimination of exercises within the suggested ones.

This program can be indicated to the pregnant woman in the field according to those included into the Mother and Child Program or distributed in written brochures designs by the health professional. From this, it is important to write them in clear and precise language when describing the positions, repetitions and postures to be adopted for practicing each one of them.

It is also important to explain to the pregnant woman and her family the importance of implementing these exercises within the routine of isolation and the benefits attributed to it by the specialists in the subject, among them can be cited:

- An improvement in posture and appearance.
- Relief of back pain.

- Stronger muscles in preparation for labor and support for flabby joints.
- An improvement on circulation of the blood.
- Increase in flexibility.
- Increase / maintenance of aerobic condition.
- Increased energy level: fights fatigue.
- Reduction in muscle tension; promotes relaxation.
- Promotion of feelings of well-being and a positive self-image.

The proposal is given by a routine of 10 exercises supported on an intermediate and final relaxation techniques to be performed three times a week depending on the willingness of the pregnant woman, along with the feeling of wellbeing or fatigue generated after the practice, it is always recommended to suspend this practice if any abnormal symptoms or concerns emerge, then it is prudent to consult the professional in charge and if possible to have the participation of the couple or a family member to help the changes of position or assistance in case of the emergence of any unexpected episode.

1- Elevation of the pelvis

- **Position.** Lying face up, knees bent- Raise the pelvis (hips) as much as possible, separating it from the ground, so that the weight of the body rests on the feet on the shoulders. Return to the initial position.
- **Frequency.** 10 times.
- **Purpose.** Greater flexibility for the spine and pelvis and to strengthen muscles of the pelvis and legs.

2- Rotation of the spine

- **Position.** Lying face up, legs stretched.
- **Hips.** Relaxed. Turn and lift the hip from one side to the other, as much as possible. Maintain rotation. Return to the original position. Perform with the hip on the other side.
- **Shoulders.** Relaxed without moving the legs then rotate the bust by lifting your shoulder from one side. Meanwhile, the other shoulder remains supported on the floor.
- **Frequency.** When performing the movement, count to 3 and then return to the original position and repeat. Perform the movement 5 times on each side.
- **Purpose.** Elasticity in the torsion of the joints of the spine with the pelvis. It is intended for increasing the elasticity of the joints of the spine and to activate some muscles of the chest and belly.

3- Shrinking

- **Position.** Lying on the back, with the legs stretched out.
- **Shrink the legs on the trunk.** Hold the knees with the hands, and bend as much as possible the spine and the neck. So that the head remains between the knees. Return to initial position.
- **Frequency.** Stay in position until counting to two. Then to return to the initial position and repeat. Make the movement three times.
- **Purpose.** Greater elasticity to the joints useful for natural childbirth.

4- Elevation of the legs

- **Position.** Lying on the back, with the legs stretched out.
- **Exercise 1-** Raise one leg, bend it over the belly, and extend it until it is completely straight. Lower it little by little to the floor in the initial position. Carry out the exercise with the opposite leg. Then, make the movement without touching the ground.

- **Exercise2-** Raise both legs, together and straight, until they are vertical. Lower them slowly. Breathe deeply when lowering the legs.
- **Frequency.** 10 repetitions for each exercise.

5- Balancing the pelvis

- **Position.** Lying face up, knees bent, feet on the floor.
- Decrease the space between the spine of the lumbar zone and the ground, bending the spine so that it touches the ground. Then bend the spine in the opposite direction, increasing as much as possible the space between the spinal column and the ground.
- **Frequency.** 20 times each session.
- **Purpose.** This way the pelvis is balanced. It allows obtaining more elasticity, necessary for an easy childbirth.

6- Squatting

- **Squatting position.** The feet must be completely flat on the ground, not on tiptoes. As close together as possible. - It consists of lasting in the position.
- **Frequency.** It is suggested from 5 to 10 minutes. If this is not achieved, stand firm for as long as possible.
- **Purpose.** One of the most important exercises for the natural childbirth method. It increases the elasticity of the pelvis and the flexibility of the spine.

Relaxation techniques

- **Clean breathing.** This is exaggerated and deep breathing, usually done by inhaling (grasping) through the nose, and exhaling (blowing) through the mouth.
- **Focal point.** With eyes closed, imagining a peaceful or serene scene is a good option for some mothers to be; others may find it better to concentrate on an object in the room.

7- Alternate bending

- **Position.** Standing, with legs separated and arms stretched in a cross on the trunk. Seated with the trunk upright.
- Take a deep breath with your body erect. You proceed to turn the trunk, and later to bend it, without changing the attitude of the arms; the right hand comes to touch the left foot. When bending the trunk, expel the air.
- Frequency. 5 repetitions on each side.
- **Purpose.** For breathing routine and to make the spine more flexible.

8- Exercises "go in on all fours"

- **Position.** On all fours on the ground, or supported on four points (knees and hands).
- **Exercise 1.** Imitation of the crawling of children.
- **Exercise 2.** Shrink the belly while breathing out the air. Return to the starting position when inhaling. The back should not be moved.
- **Exercise 3.** Sink the back as much as possible, increasing the curvature of the back. (The pelvis goes down in front). Then, arch the back as much as possible, with an arch before the previous one (the pelvis goes up in front).
- **Frequency:**

Exercise1- from 2 to 3 minutes a day.

Exercise 2- repeat five times.

Exercise 3- repeat five times.

Purpose: to increase the elasticity of the joints of the spine and the pelvis.

9- From the side

- **Position.** Lying sideways on a flat spot.
- Raise the upper leg as much as possible. Keep it extended for a few moments and slowly lower it again.
- **Frequency.** Five repetitions on each side.
- **Purpose.** To activate the muscles of the sides of the belly. To make the joints of the pelvis more flexible and elastic.

10- Circumferences

- **Position.** Lying face up, legs stretched
- Raise one leg and trace with it a circle in the air. When tired, lower the leg and do the same with the opposite leg. *It is suggested to begin the exercise with the leg as vertical (up) as possible, and to lower it as you acquire more strength.*
- **Frequency.** Personal considerations. When fatigued.
- **Purpose.** To strengthen the muscles of the belly. To avoid the fall of the belly and the hernias of difficult births.
- **Frequency.** Personal considerations. Fatigue.
- **Purpose.** To strengthen the muscles of the belly. To avoid the fall of the belly and the hernias of difficult births.

11. Squeeze the muscles as if trying to stop the urine, pulling them up. Contract and hold them while counting to five by breathing gently. Then relax them for five more seconds, and repeat the series 10 times. Try to progressively increase the time of contraction and relaxation. Start with five seconds in each case until you reach 20. The longer you manage to hold the contraction of the muscles, the stronger they will become.

Relaxation techniques

- **Clean breathing.** This is exaggerated and deep breathing, usually done by inhaling (grasping) through the nose, and exhaling (blowing) through the mouth.
- **Focal point.** With eyes closed, imagining peaceful or serene scenery is a good option for some mothers to be; others may find it better to concentrate on an object in the room.

CONCLUSIONS

The concern of the pregnant women included to the group of obstetric psychoprophylaxis in the health area, prompted the authors to present from first to last, a literature review as a simple program with practical recommendations, to be applied at home, aimed at improving the lack of physical and psychological determining factors caused by the social isolation imposed as a preventive measure against the spread of COVID-19, and continue with the training to mitigate the discomforts of pregnancy, preparing themselves for a successful delivery without complications and achieving a rapid recovery of the mother and her future baby during puerperium.

Authorship declaration

MMD- worked on the conceptualization and design of the article and review of documents. Participated in the analysis and discussion of the results and created the versions of the article.
IGF- NMRP- NLP- participated in the analysis and discussion of the results and the decisive review of the versions of the article.

Conflict of interests

The authors declared there's no conflict of interests.

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