
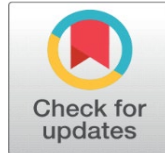


PSYCHOPROPHYLAXIS EFFECT ON POSTPARTUM PERIOD

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ABSTRACT

Introduction: Psychoprophylaxis during pregnancy has been associated with favorable labor outcomes. Nevertheless, less is known about its effect on postpartum period, when mood disorders and lactation problems may occur.

Aim: This narrative review refers to the effect of the psychoprophylaxis sessions during pregnancy on the postpartum period (puerperium)

Methods: A literature review was conducted using the international databases Medline/PubMed, Scopus and Google Scholar. Only quantitative studies published in English language journals were included.

Results: Few studies have explored the effect of psychoprophylaxis on puerperium. Psychoprophylaxis was positively associated with successful breastfeeding and negatively associated with maternity blues. Sample selection was a limitation in all three studies included in this review.

Conclusions: Psychoprophylaxis may exert positive effects not only on labor outcomes, but also on post-partum period. Randomized control trials focusing especially on Lamaze method are necessary.

Keywords: Psychoprophylaxis, Postpartum, Maternity Blues, Lactation

1. INTRODUCTION

Pregnancy, in addition to the physical and biological changes in the expectant mother, also causes changes on a psychological and social level. Pregnancy, especially in primiparas, is a powerful psychological experience, as women not only face a completely new situation, but also enter a period that is crucial for their subsequent role as mothers. Pregnancy is treated as a complex bio-psychosocial phenomenon, in which physical changes are accompanied by changes in the psyche and in interactions with the social environment [Bjelica and Kapor-Stanulović \(2004\)](#), [Pascal et al. \(2023\)](#).

Midwives must be well trained to help pregnant women, recognizing their distress, supporting informed optimism, guiding them towards realistic coping strategies and using existing social support networks [Barber and Starkey \(2015\)](#). At the same time, they can advise on using alternative methods of relaxation during pregnancy and childbirth, such as breathing techniques, music therapy, aromatherapy, the use of lavender foot baths, yoga, massage, shiatsu, acupuncture, water birth, freedom of movement and herbal medicine. Using such methods, such methods can improve the quality of life and efficiency of pregnant women, in such a critical period [Effati-Daryani et al. \(2015\)](#).

The role of midwives is not limited during pregnancy and labor, but also extend over post-partum period. Over puerperium, breastfeeding and mood disorders are critical issues. Especially mood disorders in the form maternity blues are extremely common and it is estimated to occur in approximately 50% or more women within the first few weeks after childbirth [Fairbrother et al. \(2015\)](#).

The Lamaze psychoprophylaxis method is a type of group prenatal teaching and assistance. It encompasses labor techniques for giving birth free of fear and with minimal pain [Lamaze \(1952\)](#), [Lamaze et al. \(1954\)](#). Through this technique, expectant mothers learn to utilize their understanding at specific time points to shield their bodies from discomfort and their mind from potential harm. Psychoprophylaxis is viewed as a technique for psychosomatic readiness, as it is related to the appropriate preparation of the woman, addressing her physical and emotional aspects. Psychoprophylaxis tools consist of the theoretical knowledge provided to the expectant mother and her partner regarding pregnancy, childbirth, and breastfeeding, combined with breathing exercises, relaxation methods and self-concentration practices [Beck et al. \(1979\)](#), [Zwelling \(2009\)](#). Relaxation methods assist the woman in easing tension, managing her body, conserving energy, and dealing with discomfort. The suitable breathing methods, help the woman to relax, control her body, maintain reserves and cope with pain. By applying appropriate breathing techniques at each stage of labor, the woman remains calm, her thoughts are diverted from pain, the release of endorphins is activated, the pain threshold is increased, and the pain stimulus is partially blocked, thus reducing pain during contractions [Scott and Rose \(1976\)](#), [Simkin and Bolding \(2004\)](#).

The international literature, despite some cautions, has proven the usefulness and reliability of psychoprophylactic preparation for childbirth, while there is no study that reports harm from psychoprophylaxis [Morales et al. \(2020\)](#), [Wu et al. \(2023\)](#). Moreover, there is some evidence that antenatal psychosocial support could prevent postpartum depression. A RCT in China ended up in the conclusion that women who attended a specially designed psychoeducation program had significantly better psychological wellbeing, and fewer depressive symptoms in the postpartum period [Gao et al. \(2010\)](#), [Natsiou et al. \(2023\)](#) suggest that a psychosomatic approach should be considered in the antenatal care of women for postpartum depression and preterm birth prevention. However, reports on the effect of psychoprophylaxis in the postpartum period are scarce and especially on two critical parameters for the health of the mother and the newborn, those of lactation and postpartum depression. The purpose of this mini review was to present articles that refer to the effect of psychoprophylaxis on postpartum depression and lactation.

2. METHODS

A descriptive review of the international literature was carried out. The key words and phrases used in the search in various combinations were

Psychoprophylaxis, Lamaze method, pregnancy, outcome, post-partum, perinatal, cortisol, anxiety, depression, maternity blues, relaxation, breathing technique, lactation.

3. RESULTS

The three studies included in this review support the positive effect of psychoprophylaxis on the postpartum period. The study of [Ntella \(2017\)](#) was a cross-sectional study that comprised a representative sample of 200 mothers equally allocated to two groups (psychoprophylaxis and standard care) who gave birth in two public and three private hospitals. The majority of women in the psychoprophylaxis group (60%) experienced natural births, whereas most women (52%) in the standard care group had caesarean sections ($p=0.01$). A statistically significant association was observed between participation in psychoprophylaxis sessions and these outcomes: attendance at breastfeeding programs, initiation of breastfeeding, and knowledge about human milk banks. Of note, the researcher noticed a protective effect of psychoprophylaxis on medication during pregnancy and reducing caesarian section rates, although differences were not statistically significant. Despite any cautions about Lamaze method, one could hardly disagree that with this method women become familiarized with the idea of childbirth and lactation, dissolve fears and prejudices and prepare themselves to face difficulties with breastfeeding.

[Natsiou et al. \(2023\)](#) carried out a non-randomized clinical trial, comprising a sample of 414 pregnant women who were evenly divided into two groups receiving psychoprophylaxis or standard care. The aim of the research was to assess if socioeconomic variables impact postpartum blues and if psychoprophylaxis might provide a protective effect. There were six psychoprophylaxis sessions conducted, with two per week that lasted 2 hours each, involving groups of five individuals at an urban public health facility in Greece. This research showed that the likelihood of experiencing postpartum depression, and “maternity blues” was markedly lower in the intervention group. While psychosocial parameters like economic status and depression remained influential, the preventive impact of psychoprophylaxis was the primary factor in the ultimate predictive model of “maternity blues”. Nonetheless, the study’s limitations included the absence of randomization and differences in educational level. It is important to mention that concerning randomization, the researchers stated that “this limitation was difficult to avoid because of ethical considerations (we could not exclude women who wished to participate in the psychoprophylaxis sessions)”. Moreover, it is challenging in clinical practice to account for the duration of the intervention and the support from fellow participants, which may additionally affect the results and skew the impact of the Lamaze method by itself.

[DongYing et al. \(2012\)](#) conducted a RCT to test the hypothesis that a psychological intervention by a trained nurse could alleviate stress and anxiety prior to cesarean section. Their intervention resembled psychoprophylaxis in terms of breathing training and relaxation, among other parameters. Of the 1246 women initially selected, 119 were finally allocated to psychological visiting and “non-psychological visiting. Beyond beneficial effects on labor parameters (analgesia, less adverse effects and shorter urinary indwelling catheterization), women who had received the psychological intervention had an earlier onset of lactation: 62.9% of participants in the “psychological visiting” group had onset of lactation within the first 72 hours after the cesarean section, in comparison with 36.8% of the “non-

psychological group". They also reported an anxiolytic effect in the intervention group.

4. DISCUSSION

Psychoprophylaxis (Lamaze method) has been for years considered effective for ameliorating the process of childbirth, especially when it is combined with nursing intervention and it deserves to be promoted and applied in clinical practice [Furler et al. \(1964\)](#), [Wu et al. \(2021\)](#)

There are few studies investigating the effect of psychoprophylaxis in the postpartum period ("puerperium"). Although there is evidence that psychoeducation in general may have a beneficial effect over psychological well-being in the postpartum period [Gao et al. \(2010\)](#), [Collado et al. \(2014\)](#), only two studies, from the same region in Greece offer some evidence for the efficacy of Lamaze method in this critical period. The study of [DongYing et al. \(2012\)](#) in China was also reviewed, because breathing training and relaxation was included in a two-session training program, thus resembling psychoprophylaxis, as in Lamaze method breathing technique is a key element. The paucity of data in this field and study limitations (mainly randomization) do not allow sound conclusion. [DongYing et al. \(2012\)](#) in their RCT mention that although participants were masked for group allocation, "it was still possible that they were aware of the group assignment because of the increasing popularity of preoperative education on natural birthing or/and Cesarean delivery and gravidas' avid involvement into antenatal educating classes". Moreover, they raised questions about the research tools they used to measure anxiety and depression. This fact actually undermines randomization, and it is mentioned by most researchers, along with the ethical consideration (i.e they could not exclude women who would like to attend the psychoprophylaxis sessions).

The study by [Natsiou et al. \(2023\)](#) was a non-randomized clinical trial, so it is subject to limitations of confounding factors, such as sociodemographic variables and selection bias due to popularity of the method. Also, as in the Ntella's study, more women in the psychoprophylaxis groups were university graduates and had a better access to services and information, a fact that might have also affected the results. Given this, they may be able to better manage their symptoms of depression, thus increasing the effect of the sessions on postpartum depression.

Regarding the present review a limitation is that studies in non-English language journals were not included. As psychoprophylaxis is particularly popular in Eastern Europe and Asia, some studies might have been evaded. However, no indirect references or relevant English titles indicative of possible effects of psychoprophylaxis in the postpartum period were found.

However, the three studies included in this review provide some ground for future research with reliable tools in representative and stratified samples of women. Future studies could comprise hormones measurements, in order to shed light to underlying physiological mechanisms. There is also evidence that psychoprophylaxis exerts positive effect on cortisol levels. Indeed, [Fu et al. \(2012\)](#) reported a lower saliva cortisol in the intervention group. A psychosomatic approach and psychosocial support should be seriously considered, for postpartum depression prevention, especially in the case of vulnerable women. As [Gjerdingen et al. \(2014\)](#) reported, strong social support, particularly non-partner support, were independently associated with fewer depressive symptoms in the postpartum period. In that context, our findings show potential for prevention and allow interesting hypotheses for future interventions.

CONFLICT OF INTERESTS

None.

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