Executive Summary of the study Villani et al. (2024) "Antenatal Perineal Training for Injuries Prevention: Follow Up after Puerperium"

Villani, Federico, Cristian Furau, Barbara Mazzucato, Antonella Cavalieri, Oana Cristina Todut, Victoria Ciobanu, Giuseppe Dodi, and Ion Petre. 2024. "Antenatal Perineal Training for Injuries Prevention: Follow Up after Puerperium" Medicina 60, no. 8: 1264. https://doi.org/10.3390/medicina60081264

EPI-NO Clinical Study, Department of Surgical, Oncological and Gastroenterological Sciences, University of Padua, Padua, Italy, and Western University of Arad, Arad, Romania, 2023

The study "Antenatal Perineal Training for Injuries Prevention: Follow Up after Puerperium" conducted by Villani et al. (2024) provides a comprehensive analysis of the effectiveness of antenatal perineal training methods, specifically balloon stretching with the Epi-no device and perineal massage, in reducing perineal injuries and related postpartum complications among primiparous women. The study involved 150 participants who were categorised into three groups: a balloon-stretching group (BSG), a perineal massage group (PMG), and a control group (CG) that did not engage in any perineal preparation.

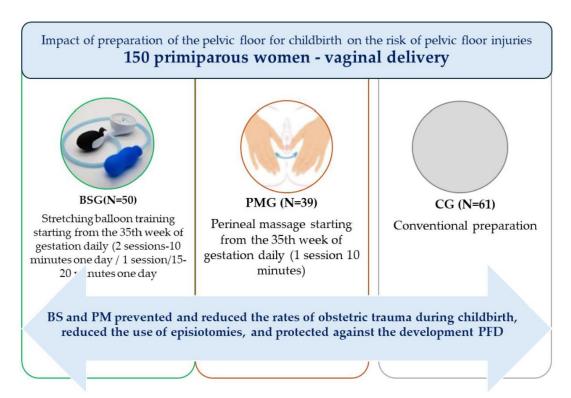


Figure 1: Graphical Abstract (© Medicina 2024, 60(8), 1264; <a href="https://doi.org/10.3390/medicina60081264">https://doi.org/10.3390/medicina60081264</a>; licenced under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/))

# **Key Findings**

### 1. Reduction in Perineal Injuries:

The study found a significant reduction in perineal injuries and the need for episiotomy in the BSG and PMG compared to the CG. The BSG exhibited the lowest rates of perineal trauma, with only 27.5 % experiencing injuries, compared to 48.7 % in the PMG and 68.3 % in the CG.

### 2. Improvement in Labour Outcomes:

The duration of the second stage of labour was notably shorter in the BSG and PMG compared to the CG. This indicates that perineal training can facilitate a more efficient labour process.

### 3. Prevention of Postpartum Dysfunctions:

The BSG showed the lowest incidence of urinary incontinence and dyspareunia within six months postpartum, compared to higher rates in the PMG and CG. The incidence rate of urinary incontinence stands in the BSG at around 23.5 % compared to 43.6 % in the PMG and 55 % in the CG. The rate of dyspareunia in the BSG stands around 11.8 %, in the PMG at 35.5 % and in the CG at 61.7 %. This suggests that antenatal balloon stretching is particularly effective in preventing long-term pelvic floor dysfunction.

# Benefits of Antenatal Perineal Training

#### 1. Reduced Obstetric Trauma:

The practice of antenatal perineal training significantly lowers the risk of perineal injuries, reducing the need for surgical intervention such as episiotomy.

### 2. Enhanced Postpartum Recovery:

Women who engaged in these training methods experienced fewer complications related to pelvic floor dysfunction, such as incontinence and pain during intercourse.

## 3. Improved Labour Efficiency:

The study demonstrated that perineal training can shorten the duration of labour, potentially leading to a smoother and less traumatic delivery experience.

# Conclusion

Antenatal perineal training, particularly the use of the Epi-no device to increase the elasticity of perineal tissues, is highly effective in reducing perineal trauma during childbirth and in preventing associated postpartum morbidities. These methods should be considered as viable options for pregnant women to enhance childbirth outcomes and long-term pelvic floor health.