

Spontaneous Versus Directed Pushing Technique: Maternal and Neonatal Outcomes: A Comparative Study in Northern Upper Egypt

Background: Maternal pushing during the 2nd stage of labor is indispensable and important contributor to the involuntary expulsive force developed by uterine contraction results to influence on the mother and fetus. **Aim:** the study was conducted to compare spontaneous versus Valsalva (directed) pushing techniques at the second stage of labor on maternal and fetal outcomes. **Methods:** **Setting:** Delivery Unit of El-Fayoum General and University Hospitals. **Design:** A quasi-experimental comparative study. **Subjects:** A purposive sample of a total of 100 primiparous women; 50 in the Valsalva (directed) pushing group & 50 in the spontaneous pushing group. **Tools:** four tools were used; structured interviewing questionnaire sheet, Apgar score, Visual analog scale, and women satisfaction questionnaire. **Results:** The duration of the second stage of labor was shorter (5-10 min) in a spontaneous pushing (54.0%) group compared to the direct pushing group (2.0%). Oxygen wasn't used at all in spontaneous pushing group compared to 74.0% of directed pushing group. Postpartum hemorrhage was too little in spontaneous pushing group (96.0%) compared to 36.0% of the directed pushing group. Also, all women in the spontaneous pushing group experienced mild perineal pain compared to 32.0% in the directed pushing group ($p < 0.001$). The individual items of the VAS were significantly higher in the directed pushing group than those in the spontaneous pushing group. According to Apgar's score, there was a significant difference between the two groups during both the first and fifth minutes of birth. In the directed pushing group, a higher proportion of babies are admitted to ICU than those in the spontaneous pushing group (18.0 percent versus 10.0 percent). **Conclusion;** spontaneous pushing during the 2nd stage of labor enhanced neonatal and maternal outcomes; whilst directed pushing was associated with an increased duration of the 2nd stage of labor and risk of adverse neonatal outcomes. **Recommendations:** It may be recommended that spontaneous pushing during the second stage of childbirth be included in the procedure for maternal hospitals.

Keywords: maternal, neonatal, outcomes, spontaneous, directed, pushing, second stage of labor

