

# VOJTA THERAPY IN THE REDUCTION OF PERINATAL RISK IN PRETERM INFANTS WITH RESPIRATORY DISTRESS SYNDROME AND BRONCHOPULMONARY DYSPLASIA

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## AIMS

To study if Vojta therapy can reduce the perinatal risk and decrease the days of hospitalization of preterm infants with Respiratory Distress Syndrome (RDS) and Bronchopulmonary Dysplasia (BPD).

## METHODS

Sixty preterm infants with gestational age (GA)  $\leq 32$  weeks and a diagnosis of RDS were randomly allocated into two groups: experimental group (EG, N=32 preterm infants; 15 girls and 17 boys), and a control group (CG, N=28 preterm infants; 11 girls and 17 boys). Both groups received standard of care in the neonatal intensive care unit (NICU), additionally the EG received two daily sessions of 10 minutes during 30 days of Vojta therapy. *There were no significant differences between the groups in GA [EG: 28.2 weeks, CG: 28.9 weeks, p-value=0.218], birth weight [EG: 1122.56 g, CG: 1160.35 g, p-value=0.630] and gender distribution [p-value=0.554].*



All infants were assessed with the Perinatal Risk Inventory (PERI) when discharged. Two t-Student tests were carried out of mean differences for independent samples between the scores of perinatal risk and of the days of hospitalization of both groups. D statistic was calculated to determine the effect size.

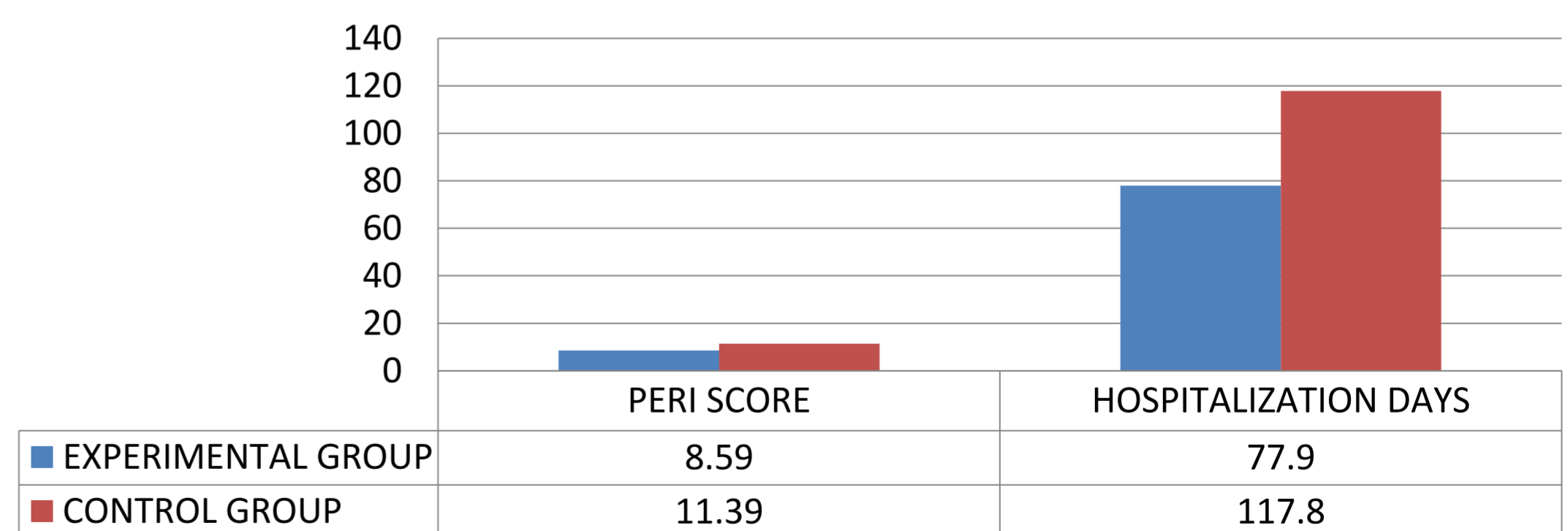


## RESULTS

Our findings reveal significant differences between both groups, with significantly better outcome among the infants who received Vojta Therapy; infants in EG obtained lower PERI scores [p-value<0.001] and were less days in hospital [p=0.001] when compared to the CG. The effect size was large among the EG in the reduction of perinatal risk (d=0.95) and of the days in hospital (d=1.86).

| Group Statistics     |                  |    |        |                |                 |
|----------------------|------------------|----|--------|----------------|-----------------|
|                      | Treatment Groups | N  | Mean   | Std. Deviation | Std. Error mean |
| PERI SCORE           | Experimental     | 32 | 8.59   | 2.85           | 0.50            |
|                      | Control          | 28 | 11.39  | 3.01           | 0.56            |
| HOSPITALIZATION DAYS | Experimental     | 32 | 77.90  | 28.58          | 5.05            |
|                      | Control          | 28 | 117.78 | 54.72          | 10.34           |

Difference between experimental and control group means



|                      | Independent Samples Test<br>t-test for Equality of Means |    |         |                 |                       | Effect size         |
|----------------------|--|----|---------|-----------------|-----------------------|---------------------|
|                      | t  | gf | p-value | Mean Difference | Std. Error Difference | Cohen's d statistic |
| PERI SCORE           | -3.697   | 58 | <0.001  | -2.799          | 0.757                 | 0.95                |
| HOSPITALIZATION DAYS | -3.465   | 58 | 0.001   | -39.879         | 11.510                | 1.86                |

## CONCLUSIONS

The Vojta therapy has high clinical relevance; it is effective in reducing perinatal risk scores and days of hospitalization of preterm infants with RDS and BPD.

## ACKNOWLEDGEMENTS

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## REFERENCES

- Scheiner AP, Sexton ME. *Prediction of developmental outcome using a Perinatal Risk Inventory*. Pediatrics. 1991; 88 (6): 1135-41.
- Bauer H, Appaji G, Mundt D. *Vojta Neurophysiologic Therapy*. Indian J Pediatr. 1992; 59: 37-51
- Fernández-Rego FJ, Gómez-Conesa A, Pérez-Lopez J. *Efficacy of early physiotherapy intervention in preterm infant motor development. A systematic review*. J Phys Ther Sci. 2012; 24(9): 933-40

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