

RESEARCH ARTICLE

■ **Source:** LeFlore, J. L., Engle, W. D., & Rosenfeld, C. (2000). Determinants of blood pressure in very low birth weight neonates: Lack of effect of antenatal steroids. *Early Human Development*, 59(1), 37–50.

Introduction

LeFlore, Engle, and Rosenfeld (2000) conducted a retrospective, cohort study (Group 1 received antenatal steroids [$n = 70$]) with matched controls (Group II did not receive antenatal steroids [$n = 46$]) to examine the effect of antenatal steroids on neonatal blood pressure (BP) in the first 72 hours of life in very low birth weight (VLBW) neonates. Additionally, the effect of other perinatal factors on BP were studied, which included estimated gestational age (EGA), birth weight (BW), and postnatal age. The results indicate that there are positive linear relationships between BP and BW, BP and EGA, and BP and postnatal age.

Relevant Study Results

BP for Group I and Group II were compared over the first 72 hours of the neonate's life. Since there were no significant differences in initial and subsequent measurements of BP between the groups, subsequent analyses were performed with the groups combined ($n = 116$). To assess the effect of BW on BP, the infants were grouped into those with $BW \leq 1,000$ grams ($n = 36$) and those with BW 1,001–1,500 grams ($n = 80$). The researchers displayed the results of their analyses in figures. Figure 2 displays the relationships between postnatal age in hours and 3 BPs, systolic BP (SBP), diastolic BP (DBP), and mean BP (MBP), for infants with $BW \leq 1,000$ grams. Figure 3 displays the relationship between postnatal age in hours and SBP, DBP, and MBP for infants with a BW 1,001–1,500 grams.