

Publication

Is there a differential impact of parity on blood pressure by age?

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)**ID** 2730115**Author(s)** Dratva, Julia; Schneider, Cornelia; Schindler, Christian; Stolz, Daiana; Gerbase, Margaret; Pons, Marco; Bettschart, Robert; Gaspoz, Jean-Michel; Künzli, Nino; Zemp, Elisabeth; Probst-Hensch, Nicole**Author(s) at UniBasel** [Dratva, Julia](#) ; [Schindler, Christian](#) ; [Künzli, Nino](#) ; [Zemp Stutz, Elisabeth](#) ; [Probst Hensch, Nicole](#) ; [Schneider, Cornelia](#) ;**Year** 2014**Title** Is there a differential impact of parity on blood pressure by age?**Journal** Journal of hypertension**Volume** 32**Number** 11**Pages / Article-Number** 2146-2151**Keywords** blood pressure, cardiovascular health, hypertension, parity, reproductive factors, women

In pregnancy, women experience metabolic and hemodynamic changes of potential long-term impact. Conflicting evidence exists on the impact on blood pressure (BP). We investigated the association between parity and BP in the Swiss Study on Air Pollution And Lung and Heart Disease In Adults cohort.; Multilevel linear and logistic regression analyses were performed in 2837 women aged 30-73 years, with data on parity, number of births, BP, and doctor-diagnosed hypertension adjusting for potential confounders. Hypertension was defined as at least 140/90 mmHg, doctor diagnosed or taking relevant treatment. Stratified analyses were performed by age (>40, 40-59, and ≥ 60 years) and menopausal status.; Parous women had a mean of 2.3 pregnancies (SD 0.95, range 1-7). A total of 26% were nulliparous. Mean BP was 119/76 mmHg in nulliparous and 121/76 mmHg in parous women. Parity had a significant adverse effect on BP in women at least 60 years [SBP 5.6 mmHg, 95% confidence interval (CI) 2.3 to 8.9; DBP 1.8 mmHg, 95% CI 0.1 to 3.6] and protective effect in women below 40 years (SBP -3.4 mmHg, 95% CI -5.8 to -1.0; DBP -0.2 mmHg, 95% CI -1.0 to 0.6). With increasing number of births, SBP (mmHg/birth; 95% CI) increased in older (1.2, 95% CI 0.2 to 2.2) and decreased in younger women (-1.6, 95% CI -2.6 to -0.5). Opposite effects of parity were also found for diagnosed hypertension. No interaction by menopausal status was found.; Our analyses yield differential effects of parity on BP in older vs. younger women. Reductions in BP in younger parous women have been described before; the opposite impact in older women is new. The findings may constitute biological mechanisms in an aging population or reflect birth cohort effects.

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