

Lower Prevalence of Risk Factors for SIDS in East German Compared to West German Parents

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Objective and Study Sample

The authors investigated what subgroups of the German population have higher prevalence of modifiable risk factors for SIDS: smoking during pregnancy, infants sleeping prone, or on sheepskin. Data were obtained by questionnaires mailed to a stratified random cluster sample of parents who raised infants at 1 - 6 months of age in December 1995. Regions of this cross-sectional study were three states of Germany: Lower Saxony, Northrhine-Westphalia, and Berlin.

The response among the German population was 76 %, yielding a sample size of 2,936. Mothers and fathers of 2,783 children could be categorised to have been raised either in former East or in West Germany, before the unification in 1990. In 2,217 cases, both mother and father were raised in West Germany, in 443 cases both partners had grown up in East Germany.

		Father		
		west	east	
Mother	west	2217	42	2259
	east	81	443	524
		2298	485	2783



Results

In comparison to West Germans, East German parents were more likely to be residents of Berlin (Figure 1), to be younger (mean age of mothers 27.5 vs 29.8 years, fathers 29.8 vs 32.4 years, U test: $p < 0.01$) and to have higher educational levels (low education: mothers 5.8 % vs 15.5 %, fathers 6.1 % vs 24.5 %; χ^2 test: $p < 0.01$).

There were considerable differences in the prevalence of major risk factors for SIDS (see Figure 2). East German mothers were less likely to exclusively breast feed their offspring at the time of the study (40.0 % vs 46.1 %, $p < 0.05$) and to have smoked during pregnancy. Household smoking at the time of study, however, was as prevalent as among West German parents.

Prevalence proportions of infants being laid to sleep in the prone position or on sheepskin were also higher among West German parents. In terms of crude relative risks (RR), children of East German parents were less likely to be laid to sleep in the prone position (RR 0.45, 95% confidence interval [95%CI] 0.30-0.74) or to sleep on sheepskin (sheepskin with sheet: RR 0.26 [95%CI 0.18-0.38]; without sheet: RR 0.39 [95%CI 0.27-0.57]) than were infants of West German parents.

After adjustment for potential confounders using logistic regression, the observed East-West differences remained virtually unchanged (Table 1).

Table 1. Adjusted* odds ratios for the prevalence of risk factors for SIDS in East compared to West German parents.

Risk Factor	OR*	95% CI
Mother smoked during pregnancy	0.57	0.41-0.80
Infant sleeps prone	0.34	0.14-0.83
Infant sleeps on sheep skin	0.29	0.21-0.40

*) adjusted for parents' age and education, infant's age, and state of residency

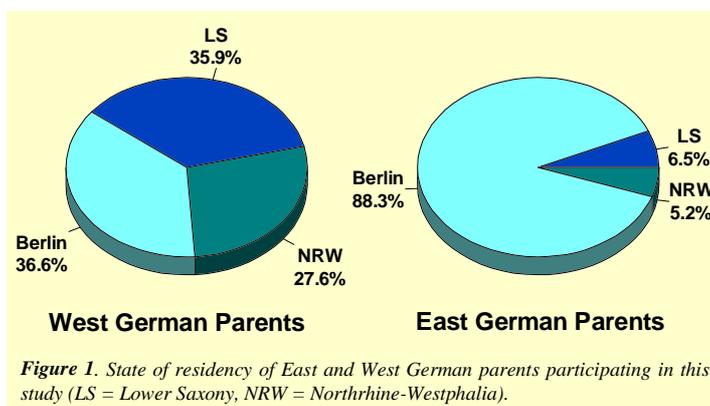


Figure 1. State of residency of East and West German parents participating in this study (LS = Lower Saxony, NRW = Northrhine-Westphalia).

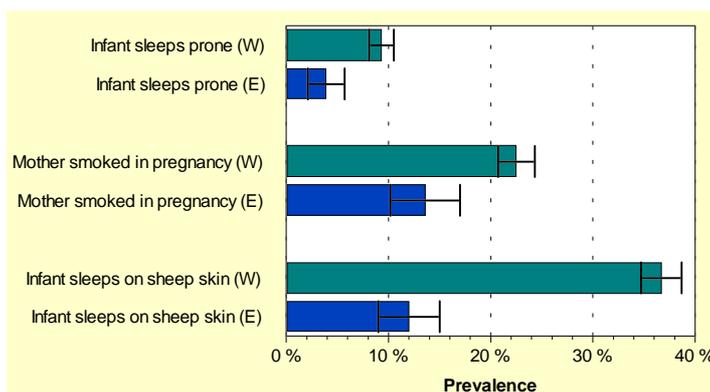


Figure 2. Prevalence estimates (and their 95% confidence intervals) of risk factors for SIDS among West (W) and East (E) German parents.

Discussion

The finding of lower prevalence proportions of risk factors for Sudden Infant Death Syndrome among East compared to West German parents was a surprising result of this cross-sectional study. Our data suggest that historical differences in pregnancy and infant care between the formerly separated states of East and West Germany may still exist in young parents and that the early East German interventions aiming at the reduction of major risk factors for SIDS were in fact successful.

After a series of sudden, unexpected infant deaths in day-nurseries, the East German Ministry of Health had decreed in 1972 that "the prone position must not be used during sleep, without supervision, in perambulators, under bed covers, or in tight clothing" [2].

In a recent survey on the true SIDS incidence in the former German Democratic Republic (East Germany), where all childhood deaths were autopsied, 0.6 SIDS cases per 1,000 live births were estimated to have occurred between 1985 and 1989, which is one of the lowest rates in the world [3].

References

- [1] Schlaud M, Eberhard C, Trumann B, Kleemann WJ, Poets CF, Tietze KW, Schwartz FW. Prevalence and Determinants of the Prone Sleeping Position in Infants - Results from Two Cross-Sectional Studies on Risk Factors for SIDS in Germany. *Am J Epidemiol* 1999; 150: 51-57.
- [2] Verfügungen und Mitteilungen des Ministeriums für Gesundheitswesen der DDR. Berlin: VuM 1972; 8: 47.
- [3] Vock R, Schlaud M, Anshütz U, et al. The incidence of sudden infant deaths in the former German Democratic Republic between 1985 and 1989. *Eur J Pediatr* 1999 (in press).