**Physical education and overweight and obesity in Swedish children**

Rut Skärby, Johnny Ludvigsson, Karel Duchen

**Summary**

Background: Ways of controlling the development of overweight and obesity are needed. All children participate in physical education in school. Is more physical education protective against overweight and obesity in children?

Methods: The ABIS-study, a prospective population-based cohort study of All Babies In Southeast Sweden, has followed children from birth. We analysed overweight and obesity in school-children related to physical education in the 8-year-old follow-up with 3017 children participating and in the 12-year-old follow-up with 3092 children.

Results: In the 8-year-old follow-up the mean age was 7 years and 11 month, 47,7% were girls, the prevalence of overweight and obesity 14,5%. In the 12-year-old follow-up the mean age was 12 years and 4 month, 50,4 % were girls, the prevalence of overweight and obesity 15,3%. More girls were affected by overweight and obesity in the 8-year-old group and more boys in the 12-year-old group. We didn’t find any differences related to physical education but we found other factors supporting that more physical activity is related to normal weight and more sedentary habits is related to overweight and obesity. The most important factors were weight group of the parents in both age-groups. In the 8-year-olds hours of watching television on school days. In the 12-year-old maternal smoking during pregnancy, the experience of being able to run well and a bigger sweets consumption.

Conclusion: We did not find any difference related to amount of physical education in school but we found several other factors with significant association to weight groups in children.