

Barriers and Facilitators of Health Promotion and Obesity Prevention in Early Childhood: A Focus on Parents Results from the IDEFICS Study

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Avhandlingen baseras på följande delarbeten:

- I. Haerens L, De Bourdeaudhuij I, Barba G, Eiben G, Fernandez J, Hebestreit A, Kovács E, Lasn H, Regber S, Shiakou M, De Henauw S on behalf of the IDEFICS consortium. Developing the IDEFICS community-based intervention program to enhance eating behaviors in 2- to 8-year-old children: findings from focus groups with children and parents. *Health Educ Res.* 2009 Jun; 24 (3):381-93. Epub 2008 Jul 5.
- II. Regber S, Novak M, Eiben G, Bammann K, De Henauw S, Fernández-Alvira JM, Gwoźdz W, Kourides Y, Moreno LA, Molnár D, Pigeot I, Reisch L, Russo P, Veidebaum T, Borup I, Mårlid S. Parental perceptions of and concerns about child's body weight in eight European countries – the IDEFICS study. *Pediatr Obes.* 2013 Apr;8(2):118-29. Epub 2012 Sep 21.
- III. Regber S, Novak M, Eiben G, Lissner L, Hense S, Sandström TZ, Ahrens W, Mårlid S. Assessment of selection bias in a health survey of children and families—the IDEFICS Sweden-study. *BMC Public Health.* 2013 May 1;13(1):418
- IV. Regber S, Mårlid S, Johansson Hanse J. Barriers to and facilitators of nurse-parent interaction intended to promote healthy weight gain and prevent childhood obesity at Swedish child health centers. *BMC Nurs.* 2013 Dec 5;12(1):27

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ABSTRACT

Background: Childhood obesity has increased dramatically during the past thirty years. Parents are key persons in their children's lives and their efforts to create healthy lifestyles are very important. However, social and economic determinants of health also affect parents' opportunities to promote a healthy lifestyle.

Aims: To explore barriers and facilitators in promoting healthy lifestyles and preventing childhood obesity, focusing on parental roles.

Methods and main findings: Three studies originated from the Identification and Prevention of Dietary- and Lifestyle-induced health Effects in Children and Infants (IDEFICS) study of determinants for two to nine-year-old children's health in eight European countries. The fourth study was a qualitative interview study conducted in southwest Sweden.

Paper I: In focus group discussions (20 focus groups with children and 36 with parents), parents described lack of time, financial constraints, availability and food marketing techniques as barriers for promoting healthy eating. School policies about food varied; only Sweden and Estonia provided free school lunches. Children described great variation in the availability of unhealthy foods and beverages in their homes.

Paper II: Objectively measured Body Mass Index (BMI) of children (n=16 220) were compared to parents' perception of and concern for their children's health and weight status. In all weight categories and all countries, a substantial proportion of parents failed to accurately judge their child's weight status. In general, parents considered their children to be healthy, irrespective of their weight status. Parents of children with overweight or obesity systematically underestimated their children's weight status across eight European countries. Accurate parental weight perception in Europe differed according to geographic region.

Paper III: Swedish IDEFICS participants (n=1825) were compared with an age- and sex-matched referent population (n=1825), using registers from Statistics Sweden and the Swedish Medical Birth Register. Longitudinal child growth data (n=3650) were collected from child health centers and school health services. Families with low income, less education, foreign background or single parenthood were underrepresented in the IDEFICS study. BMI at inclusion had no selection effect but, at eight years of age, the obesity prevalence was significantly greater among referents.

Paper IV: A qualitative content analysis was used to interpret the findings from interviews with nurses (n=15) working at child health centers in the southwest of Sweden. The BMI Chart to identify overweight and obesity in children facilitated greater recognition but nurses used it inconsistently, a barrier to prevention. Other barriers were obesity considered a sensitive issue and that some parents wanted overweight children.

Conclusion: Parents may not perceive their child's growth trajectory from overweight to obesity, and the preschool years may pass without effort to change lifestyle. Therefore, objective measurement and information of children's BMI weight status by healthcare professionals is of great importance. To reach all parents and avoid selection bias, health surveys or health promoting activities must be tailored. Health promoting activities at the family level as well as the societal level should start early in children's lives to prevent childhood obesity.

Keywords: parents, children, obesity, weight perception, registers, prevention, health promotion