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FROM GENES TO CHILD CARE: TOP TEN STUDIES ON ECD FOR 2007

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For the seventh consecutive year, the Centre of Excellence for Early Childhood Development (CEECD) has selected the best research studies on early childhood development (ECD) involving at least one researcher from a Canadian institution.

A panel of judges from CEECD committees¹ selected the Top Ten from a larger group of studies on ECD published in the leading scientific journals in 2007. The studies in this year's *Bulletin*, titled "From Genes to Child Care," reflect the broad range of influences on early childhood development.

Two of the studies examine genetic structure and development, two examine outcomes associated with low birth weight babies and two involve problems associated with severe developmental delay. It is interesting that two more selected studies reported no effects on some aspects of early childhood development: mother's use of antidepressant medication during pregnancy was not associated with major birth defects, and early breast-feeding was not related to fewer

allergies and asthma at age 6. A study of differences in unilingual and bilingual infants' ability to distinguish between spoken English or French, using visual cues, and a study of infant day care complete the Top Ten. It's a virtual tour de force in determining the factors influencing young children's development.

Topping the 2007 list was the study of effects associated with infant day care by the *Université de Montréal's* Sylvana Côté and a team of colleagues. Results of this 5 year longitudinal study carried out on a large sample of children and their families who live in Quebec can be seen as yielding both good news and bad news. The good news is that use of nonmaternal infant care prior to the age of 9 months was associated with a reduction of later physical aggression in high-risk

children, defined as those whose mothers had not completed high school and had a history of behaviour problems and depression in their adolescence. There were no similar effects of infant care for children of mothers with better education. The bad news was that many poorly educated mothers did not use the available infant and day care provided by the Quebec government, as most did not work outside the home.

The Côté study provides an excellent example of how high quality research can influence future research and inform public policy. As an example of the former, *Université Laval* professor George Tarabulsy used Côté's findings to design a study to determine whether active encouragement of infant care use for high risk mothers can be effective. On the political front, the positive effects associated with infant care use have important implications for policy makers in an area that remains highly controversial in Canada.

Over the years, our annual Top Ten has generated a total of 70 scientific papers. The figure at the bottom of the page shows the distribution of authors among Canadian research institutions. McGill University had at least one author on 23 of the 70 articles, the University of Toronto 21, and McMaster University had 16. A sample of 70 over seven years gives a very good idea of where world class excellence in ECD research can be found in Canada. 🐾

1. Centre of Excellence for Early Childhood Development. *Bulletin* of the Centre of Excellence for Early Childhood Development. Montréal, Québec: Centre of Excellence for Early Childhood Development; 2001-2007. Available at : <http://www.excellence-jeunes-enfants.ca/structure.asp?lang=EN>. Accessed 09/15/08

