

## **Brains need love too**

*Douglas Institute research and initiatives highlight  
the importance of affection on mental health*

**Montreal, Tuesday, February 1<sup>st</sup>, 2011** – The Chinese philosopher, Lao Tzu, stated that love not only attacks the heart, but also the head. New research findings from the Douglas Mental Health University Institute support this ancient claim, by demonstrating how a mother's love positively affects her offspring's developing brain. The two recently published studies highlight how maternal care makes the baby's brain less vulnerable to stress. In order to make these and other findings better understood, the Douglas has also developed a unique video to promote brain-nurturing.

**Mom's touch and diet** – Claire-Dominique Walker, PhD, director, Neuroscience Research Division, Douglas Institute. *Interviews in French and English.*

The quality and quantity of maternal milk and maternal-infant contact impact the stress response of the adult offspring, according to recent research published in *Developmental Psychobiology*. "This manuscript reviews and highlights how critical factors early in life can shape the physiology and behaviour of adult offspring," says Claire-Dominique Walker, Douglas research scientist and study senior author. "For example, we have shown that, in rodent models, maternal high-fat feeding during the prenatal and lactational period blunts stress responsiveness in neonatal pups. In addition, we demonstrated that maternal licking of pups also blunted adult sensitivity to stress." To put it in other words, they were less vulnerable to stressful situations.

Walker, also director of the Neuroscience Research Division at the Douglas and her team, including PhD candidate Lindsay Naef, suggest that these studies have important implications for human infants. Non-invasive interventions targeted at maternal nutrition and care, are relatively easy to implement and might have a significant effect on the health outcome of the infant.

**Human maternal care studies** – Jens Pruessner, PhD, director, McGill Centre for Studies in Aging, Douglas Institute. Interviews in English.

According to a new finding published in the *Journal of Psychiatry and Neuroscience* the level of parental care received in early life has an important impact on responses to stress of young men and women. This study looked at the influence of early life experiences on the ability of young adults to cope with stressful situations. Psychological and physical indicators of stress, and levels of the stress hormone, cortisol, were measured. "Surprisingly, both low and high maternal care groups were associated with reduced cortisol stress responses," says Jens Pruessner, Douglas research scientist and senior author of the study. "However, while the low hormonal stress levels in the high maternal care group were associated with high self-esteem, subjects in the low maternal care group exhibited low self-esteem."

Based on these findings, Pruessner and his team suggest that low levels of stress hormones might be good or bad, and that only when combining screening of cortisol stress responses with psychological assessments one can describe the individuals' risk to develop stress-related disorders.

**Brains need love too – The video**

Brains need love to function and develop; to share and forge ties; and to deal with mental illness and successfully live with it. You will know more about that video by following this link. [www.douglas.qc.ca/news/1079](http://www.douglas.qc.ca/news/1079)

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**About the Douglas – [www.douglas.qc.ca](http://www.douglas.qc.ca)**

The Douglas is a world-class institute affiliated with McGill University and the World Health Organization. Its mission is to treat people suffering from mental illness and offer them both hope and healing. The Institute's teams of specialists and researchers continually advance scientific knowledge, integrate it into patient care, and share it with the community to increase awareness and thus eliminate stigma around mental illness