Saskatchewan
Early Childhood Mental Health
Provincial Network

E-News Edition 5

Mental health in infancy and early childhood affects social functioning, psychological well-being, and physical health throughout life.

Maternal Support and Hippocampal Growth

The early years (0-6) are a critical period for brain development. In fact, by four years of age, a child's brain is already 90% of the size of an adult's brain. Because of the brain's rapid development during early childhood, this is a time when development is most vulnerable and also a time when there is the most opportunity to have a positive impact.

Several studies have examined the link between chronic stress and brain growth and development in young children. These impacts can be life-altering and affect an individual's ability to self-regulate emotions and behaviour; cope with difficulties; or change, learn, and develop satisfying relationships.

Recently, Luby et al. (2012) examined whether maternal support in preschool could decrease maladaptive stress reactions and, thereby, increase hypocampus growth. In past research, smaller hippocampal volume has been shown to be related to adolescent and adult depression and other stress-related health conditions.

Ninety-two children were involved in this study. Two different measurements were taken over the course of several years. The first was taken when participants were 3-5 years old, and thus included an assessment of parent-child interactions, with emphasis placed on levels of maternal support. The second measurement was taken at ages 7-13, when MRIs were performed to look at hippocampal volume. As gender impacts the volume of the hippocampus, this was taken into consideration. Preschool depression scores were also considered.

Maternal support during stressful tasks/times was seen to have a positive effect on hippocampal size. However, maternal support provided to preschoolers who already showed signs of depression did not result in increased hippocampal growth. It is hypothesized that this support needs to occur before the onset of depression and that perhaps depression, in and of itself, may impact growth.

Even though this is the first human research to look at empirical evidence of this association, the findings underscore the importance of fostering brain development in early childhood. Further research in this area is needed.

Upcoming Educational Opportunities

Expanding Horizons in the Early Years. Promoting Mental Health from Conception and Beyond.
April 16-17, 2013. Toronto, Ontario.
www.IMHPromotion.ca

Bounce Back and Thrive, RIRO
Train to be a facilitator of 10-week resiliency groups.
5-day (for those who have not completed 2-day RIRO training): March 18-22, 2013. Toronto, Ontario.
3-day training (for those who have completed 2- day RIRO training): April 8-10, 2013. Hamilton, Ontario.
www.reachinginreachingout.com/becometrainer.htm

Prevention Matters 2013

Social Drivers of Childhood Health

October 2-4, 2013 - Saskatoon, SK

This conference will provide opportunities to explore primary prevention efforts and support the health of Saskatchewan children. The conference will highlight environmental and societal factors that influence the health and health behaviours of children and families.

Registration for the Prevention Matters 2013 conference begins mid-February. For more information or to register, please go to http://www.preventioninstitute.sk.ca/home/prevention-matters-conference

Keynote presentations include:

Dr. Vincent Felitti: The long term impact of adverse childhood experiences.

Dr. Cindy Blackstock: Equality and rights of children in Canada

Dr. Astrid Heppenstall Heger: Children at risk: Building a safety net of community resources.

Kathleen Cooper: Early life exposure to toxic substances and associations with chronic disease.

Dr. Jessica Ball: Hooks, hubs and lifelines: Creating connections for child and family wellness.

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Please feel free to distribute this information to others. If you or someone you know is interested in the network, please contact Lee Hinton at: lhinton@preventioninstitute.sk.ca

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