



## The Rising Anxiety in Children

(NDNR – October 2008)

By Iva Lloyd, BScH, RPP, RHN, ND

Why are the minds of so many children unsettled? The incidence of anxiety and depression continues to rise, with recent stats indicating that anywhere from 5% to 20% of children and youth suffer from one or both of these conditions. This rise is a concern as it is associated with significant morbidity and impairment in social and academic functioning. Children with anxiety tend to have more somatic complaints, tend to be more isolated, have fewer close friends, and have poorer self esteem. Anxiety is also associated with an increased risk of mental emotional problems later in life, and an increased risk of isolation, addictions, obesity, and suicides.

Childhood anxiety, such as separation anxiety is often the first type of mental health disorder that appears. Anxiety is a subjective internal mental state of concern, apprehension, and uneasiness. It arises when the internal mind chatter doesn't stop and there is a feeling of overwhelming uncertainty either due to an event that happened in the past or that might happen in the future. With anxiety the mind is busy with "what if" and "if then" scenarios. In children these scenarios are often created by what a child has heard or seen, as apposed to adults where there is often more of an active thinking process that drives anxiety. With anxiety the mind is over active and unable to ground itself. There is an internal sense of not being safe within one's environment, for some children it only occurs in specific situations, for others when they are tired or overly stressed, and for some it is a more global state. There is a lack of earth and a person's 'earth' is a reflection of their identity, their sense of safety, protection, boundaries, security and structure.

It is common for all individuals to feel anxious periodically, especially when faced with new experiences. Children are constantly encountering new experiences: their first day at school, the first time they are left with friends or family, toilet training, initially everything is a new experience. The causes of childhood anxiety are multi-factorial and are greatly impacted by the current lifestyle and environment that they live in. Anxiety results in psychological and somatic symptoms and it becomes a health concern when the effects are more intense, when the incidences last longer, and when the anxiety leads to phobias that interfere with life. The following are a few of the areas that a practitioner might want to expand upon when assessing children with anxiety.

### **Food**

Roughly 20% of children and adolescents have food hypersensitivities. This results not only in an increase in somatic complaints, but the concern about food intolerances and the caution and apprehension associated with eating increases anxiety, both in children and in their parents. Food intolerances also impact the absorption of other nutrients and can contribute to nutrient deficiencies.

Most children have an imbalanced diet; with excesses in the "wrong" foods and deficiencies in needed nutrients. The presence of artificial flavors, sugar, caffeine, and simple carbohydrates has been associated with increased behavioural symptoms, including anxiety. The presence of trans-fats in food causes inflammation in the brain resulting in nerve cells becoming more rigid and decreased memory, mood, and increased anxiety. Also, many children become dehydrated when drinking water is replaced with high sugar juices and pop. As water is essential to life and communication, a lack of water impacts every physiological function of the body as well as an individual's psychological state.



Omega 3 deficiency is associated with anxiety as a lack of omega 3 affects serotonin and other neurotransmitter and influences fluidity of nerve cells. The following deficiencies have also been shown to be associated with anxiety: selenium, folic acid and B12, thiamine, niacin, vitamin C, vitamin E and magnesium. The consumption of cereal is associated with lower levels of cortisol, which has been found to decrease anxiety. Food that increases the stimulation of the nervous system (sugar and caffeine) are more likely to aggravate anxiety; whereas food that is grounding (root vegetables and warm food) and food that decreases oxidative stress will often lessen anxiety, as will eating according to a schedule.

## **Childhood development and learning**

Anxiety in children is associated with a feeling of not being safe, secure, or protected. A child's lifestyle that is unstructured, unscheduled, and lacks boundaries adds to these feelings; as does one that is too structured or too restrictive. How a child develops and learns to interact with their external world greatly impacts their mental state, both as a child and as an adult.

Age two to five is a crucial time for brain development and for the start of a child's imagination and creative thinking. At this age children realize they are separate from their mother and the concept of "I" starts to develop. Initially children learn by mimicking, imitating, and observing the world around them. How a child spends their play-time greatly impacts their learning and their perceptions, both consciously and unconsciously. For example, daydreaming and imaginative play promote the child's perceptual maturity, emotional growth, and creative development; whereas play-time that is spent with game boy, in front of a computer or television is very passive and greatly limits development on all levels.

Learning requires time for reflection and for absorbing and processing experiences. It requires human interaction and interaction with the environment. The current emphasis of technology is replacing human interaction with simulated learning environments. There is a concern that this type of learning is adding to the tremendous increase in childhood anxiety, as well as impacting overall learning ability. Children are taught to memorize; not to think and reason and there is too much information without a strong grounding in what is real.

## **Family and Peer Dynamics**

During development most children need to work through one or more anxieties or fears, such as anxiety about the dark, about being left alone, etc. If there is insecurity in the family, or if there is neglect, rejection, abandonment, or abuse it will likely create insecurity in the child. Research has shown that there is an increase chance that children will have anxiety if they grow up in a family where the parents are anxious, where one or both of the parents have an addiction, or if parents are overly critical or demanding. Anxiety, to a large degree is a learned behaviour and is strongly dependent on the ability of a child to talk to and interact with their parents (or other adults) when they are fearful or uncertain about new experiences.

A parent's language and how they speak to their child affects their sense of identity and safety. If parents and adults repeatedly communicate a fearful and overly cautious attitude, such as "don't touch", "be careful", "hang on to my hand so you won't fall", or "don't talk to strangers" children will view the world as a "dangerous" place. This results in a decrease in risk taking, contraction on a mental and physical level and hence an increase risk of anxiety.

The labeling of children versus activities also increases the risk of anxiety. Terms such as "bad girl" or "good boy" affect a child's sense of self, they associate their identity with the words, not their actions. Asking parents to



demonstrate how they reprimand or caution their children provides a practitioner insight as to what type of messaging a child is receiving. Is a parent labeling activities as appropriate or acceptable (or not) or are they labeling their children?

The relationship between children and their peers also affects the mental state of children. Peer-rated anxiety was positively correlated with children's self-reported anxiety and was higher among children with anxiety disorder and children with social phobia. Children that reported having close friends or being liked by peers were less like to suffer from anxiety or social phobias.

## **Movement and Play**

Children today are more sedentary. Movement and play are important aspects of development, on all levels. Play provides the opportunity for children to learn, develop, and perfect skills that build competence, it decreases anxiety by teaching children how to cope with the new experiences, it mediates between the unconscious and the conscious, and it stimulates imagination and provides gratifying experiences to young (and old) minds. During active play children interact with their external world and they learn to tell the difference between reality and fantasy; this difference is not as well defined when play is passive or simulated.

Lack of movement is associated with increased restlessness and anxiety. Research has demonstrated that physical activity decreased depression and anxiety and it was associated with increased perceived physical conditioning, body satisfaction and overall physical self-worth. Regular moderate exercise has also been shown to enhance the body's innate ability to defend against oxidative stress.

Not only is the lack of movement in children a concern, so is posture. For example, increased time in front of a computer results in forward head posture and increased lumbar lordosis. The stance of many children is imbalanced, often intentionally. The art of walking and standing straight is seldom a focus of parents or teachers. The result is postural misalignment which then blocks the flow of energy and nutrients, contributing to somatic and psychological symptoms.

## **Television**

The increase in television viewing adds to the sedentary lifestyle of children, it is associated with obesity and with vision impairment, it decreases imagination and language skills, and the messaging that is conveyed adds to the feeling that the world is unsafe. When children decreased their television viewing time it was associated with increased physical and global self-worth, the research postulated that this was because it may have enhanced feelings of self-discipline or self-control that psychologically empowered children to feel better about themselves.

The messages conveyed in television shows lack context and meaning and depict the world as a mean and violent place, filled with uncertainty, danger, and apprehension. Children and youth are particularly vulnerable to these messages, which have been shown to adversely influence their self-image and to increase anxiety and aggressive behaviors. Many children are not able to assimilate and process the barrage of information that is conveyed and since television viewing is a passive process it changes the way that children learn. Their perception of cause and effect is distorted, as is their idea of reality. Decreased television viewing may increase self-esteem by decreasing exposure to unhealthy messages.



Doing is better than watching. Television is a one-way communication vehicle. Knowledge is increased by talking, manipulating materials, participating in gross motor activities, or interacting with other people. There is a need for feedback and interaction in order to dispel anxiety. During the assessment process I encourage you to ask about television behaviour, time spent in front of television and the role of television; is it an educator or baby-sitter.

## **Being “Connected”**

Computer, Internet, cell-phone, smart phone usage is resulting in addiction-like behaviour in children and adolescents and is greatly contributing to the incidence of anxiety and other mental health problems. Prior to kindergarten, children are being exposed to the “wonders” of the computer and internet and even to cell phones. There are even cell-phones that are targeted to tots. Adolescents view cell-phones as the most important device they own; there is even clothing and knapsacks being designed to hold a cell-phone. Children and adolescents are becoming dependent on a cell-phone at younger and younger ages. Text messaging between kids has replaced face-to-face communication. Cell-phones are even becoming part of mental-health patterns, for example, children with obsessive compulsive disorder use the phone to constantly check things and those with social phobia use the phone to avoid interaction with people.

Computers have replaced human interaction and face-to-face learning. There is a concern that digital learning (computers) results in primarily memorization and repetition skills; whereas analog learning (face-to-face conversation and interacting actively) is needed to develop problem-solving skills, reasoning skills, and complex thinking strategies. Faster is not necessarily better. Learning from computers is mostly passive without the internal mental, emotional and physical involvement necessary for cognitive development. Limited cognitive development is a breeding ground for anxiety.

Internet and email usage with children has skyrocketed. This has changed the way that children learn to communicate. Learning to pick up on visual cues and body language is decreased, there is increased uncertainty inherent with the delay in response, and the potential for messages to be forwarded and stored adds to the sense of not being safe. In face-to-face communication the body learns to evaluate feedback with all of its senses; with emails this process is hampered and results in an increased sense of restless. There is a decrease in control when the person you are communicating with is not in front of you. Also, the need to always be turned on often increases anxiety and stress. Internet and email addiction share features in common with impulse control, substance abuse and obsessive compulsive behaviour.

When looking at a computer screen or a television screen for too long the eyes go into an ocular lock (staring) and dis-associative hearing occurs where there is often a lack of connection between words and pictures. In this state the brain goes into lower alpha brain wave activity where active thought and reasoning can't occur.

The concern of EMF radiation, the impact of cell-phone type exposure on developing brains, the Yin Yang imbalances due to holding a phone to one ear, as well the concern of 'blue-tooth' head-set technology all adds to the growing concern of children constantly being connected. I encourage you to ask children and their parents about their on-line usage.

## **Treatment**

The naturopathic approach is to identify and treat the cause of disease. When childhood anxiety is a concern it is important that before supplements, homeopathics, or other treatments are used there is an understanding of the



causal factors. I have found that treating anxiety (in children and adults) often involves lifestyle changes, dietary changes, and working with a patient's internal language and mind chatter. With children, it often involves addressing the language of the parents as well.

From a research perspective cognitive behavioural therapy (CBT) is the most common conventional treatment for anxiety and it has only been shown to be effective about 50% of the time. This is a strong indication that treatment of childhood anxiety must include a different and often broader multi-faceted approach. The naturopathic focus on the treating the root cause and treating the whole person has a lot to offer children and parents that are dealing with this health concern.

## References

- Arriag P et al 2006 Violent Computer games and their Effects on State Hostility and Physiological Arousal. *Aggressive Behaviour*, Vol32: 358-371.
- Borne EJ 2000 *The Anxiety and Phobia Workbook*. New Harbinger Publications, California.
- Bushweller K 2000 *Lessons from the Analog World, what tomorrow's classrooms can learn from today*.  
[www.electronic\\_school.com](http://www.electronic_school.com)
- Busko M 2008 Anxiety Linked with Increased Cell-Phone Dependence, Abuse. *Medscape Medical News*.
- Busko M 2008 Internet Addiction: Fact or Fiction? *Medscape Medical News*.
- Busko M 2008 Treating Anxiety Disorders Early Could Have Huge Public Health Impact. *Medscape Medical News*.
- Cormier E, Harrison Elder J 2007 Diet and Child Behavior Problems: Fact or Fiction? *Pediatric Nursing* Vol33(2):138-143.
- Cotton NS 1984 Childhood pay as a analog to adult capacity to work. *Child Psychiatry and Human Development*, Vol 14(3)
- Goldfield GS et al 2007 Effects of Modifying Physical Activity and Sedentary Behavior on Psychosocial Adjustment in Overweight / Obese Children. *Journal Pediatric Psychology*. 32(7):783-793.
- Hanley K 1999 *The Parent's Up. A to Z Guide to your Toddler*. Comtemporary Books, Illinois.
- Hannaford C 1995 *Smart Moves, why learning is not all in your head*. Great Ocean Publishers, Virginia.
- Hayward C, et al. 2008 The developmental psychopathology of social anxiety in adolescents. *Depression & Anxiety*. Vol 25 (3):200-206.
- Hughes et al. 2008 Somatic Complaints in Children with Anxiety Disorders and their Unique Prediction of Poorer Academic Performance. *Child Psychiatry & Human Development*, Vol39(2): 211-220.
- Jellesma FC, Rieffe C, Terwogt MM 2008 My peers, my friend, and I: Peer interactions and somatic complaints in boys and girls. *Social Science & Medicine* Vol 66(11):2195-2205.
- Jonas WB, Crawford CC 2003 *Healing Intention & Energy Medicine*. Churchill Livingstone, Edinburgh
- Larun L 2006 Exercise in prevention and treatment of anxiety and depression among children and young people. *Cochrane Review Abstracts*.
- Latner JD, Rosewell JK, Simmonds MB 2007 Childhood obesity stigma: association with television, videogames, and magazine exposure. *Body Image* 4(2): p147-155.
- Logan AC 2007 *The Brain Diet*. Cumberland House, Tennessee



- Marklund B, Ahistedt S & Nordström G 2006 Health-Related Quality of Life in Food Hypersensitive Schoolchildren and their Families: Parent's Perceptions. Health Qual Life Outcomes.
- Mason P, Jensen G, Ryzewicz C 1997 No More Tantrums. Contemporary Books, Illinois.
- Prasse JE, Kikano GE 2008 Stuttering: An Overview. [www.aafp.org/afp](http://www.aafp.org/afp).
- Rosenbaum JF, Covino JM 2005 Depression and Anxiety in Children and Adolescents. Medscape Psychiatry & Mental Health, 10(2).
- Rossi E 2007 Shen, Psycho-Emotional Aspects of Chinese Medicine. Churchill Livingstone, Philadelphia.
- Stavrakaki C, et al 1991 Pilot study of anxiety and depression in prepubertal children. Canadian Journal of Psychiatry, Vol36(5):332-338.
- Verduin TL, Kendall PC 2008 Peer perception and liking of children with anxiety disorders. Journal of Abnormal Child Psychology, Vol 36(4):459-469