



## “Psychology Works” Fact Sheet: Paediatric Oncology

### What is Paediatric Oncology?

Paediatric Oncology is an area of medicine that treats children diagnosed with cancer. The most common types of childhood cancers include solid tumors (cancer found in the bones and soft tissues; ¼ of these are found in the brain), leukemia (cancer in the blood), and lymphomas (cancer in the lymph nodes).

Overall, 82% of children can be cured from cancer (Childhood Cancer Foundation Canada, 2011).

Cancer during childhood can be very distressing to both the child and immediate family members. Normal routines and family functioning are disrupted dramatically during the treatment period. Once treatment ends, children continue to be monitored for relapse, second cancers arising from their treatments, as well as other physical, cognitive, and emotional side-effects that can occur long after treatment ends.

### How can psychology help?

Psychologists make valuable contributions to the understanding and care of children and families faced with pediatric cancer, and are commonly a part of pediatric oncology treatment teams. Because children are still in the process of developing, cancer can interrupt, delay or impair their physical, cognitive, social, and emotional development. For this reason psychologists can play an important role throughout the child or adolescent’s process of cancer treatment, as well as after their treatment has ended.

Psychologists can support and assist children and their families to effectively cope with the distress associated with a cancer diagnosis and cancer treatment. A child's age or developmental level, personality, normal coping style, support system, as well as the type of cancer treatment needed, will affect how he or she copes. Late effects such as growth impairment, sterility, cardiac complications, limb/bone disfigurement, cognitive impairments, and secondary cancers, can also affect social and emotional functioning, academic success, employment, and overall quality of life.

### What psychological treatments are effective?

Psychologists can provide many important services to pediatric cancer patients and their families.

Specialized assessment and treatments that are helpful include:

**Assessment.** Children that experience emotional or behavioral declines during their cancer treatment may benefit from a psychological assessment to assist in identifying and treating problem symptoms. Children who are at-risk for developing cognitive decline as a result of their cancer treatment may benefit from a specialized type of evaluation called a neuropsychological assessment. Psychologists also play an important role in screening survivors of childhood cancers who may be at-risk to develop psychological difficulties years after cancer treatments have been completed.

- Neuropsychological Assessment is a specialized type of evaluation that may be particularly useful for children at-risk to develop cognitive late effects. These may include problems staying focused or attentive, trouble holding onto information for short periods of time (e.g., remembering spoken instructions), difficulty processing information quickly, and difficulty with planning, organization, and behaviour regulation. These late effects can have an impact on academic skill development, as well as social, and vocational functioning. Cognitive late effects are most often seen in children who were



treated for a brain tumour, received certain types of chemotherapy (e.g., methotrexate when given at high doses intravenously or when given into the cerebral spinal fluid) or received radiation to the brain. A neuropsychological assessment can be used to help identify strategies that will assist the child at school and to monitor their development as they get older. Early identification of cognitive late effects can promote future academic, vocational, and socio-emotional quality of life for childhood cancer survivors.

**Treatment.** Children who are experiencing distress related to emotional, cognitive, or behavioral symptoms during or after cancer treatment may benefit from specialized and targeted treatments to improve these symptoms and overall quality of life.

- Cognitive – Behavioral Therapy is a type of treatment that has been shown to be effective for individuals who are experiencing symptoms of anxiety or mood. This treatment targets thoughts, beliefs, and behaviors, in order to improve symptoms. *Relaxation therapies* including *mindfulness-based strategies* can also help to cope with negative thoughts, emotions, and physical symptoms of stress/anxiety. *Social skills therapies* target deficits related to interpersonal and communication skills.
- Pain Management interventions can complement medication treatments for cancer pain (e.g., bone pain, needle pain, mouth sores). Pain management strategies include hypnosis, relaxation, imagery, and desensitization. These have also been found to be useful when anticipatory nausea and vomiting develops.
- Parent Therapy is treatment directed at parents, often when young children are displaying physical or behavioral signs of maladjustment to their cancer or treatment experience. Parents typically benefit from specific guidance and education to enhance skills required to parent a child with a life-threatening illness. Such interventions also may be useful in parenting other siblings who might be acting out due to changes in the family structure/routine.
- School Reintegration is a psychological intervention directed at the school and may include talking with the classmates and staff to explain what cancer is and how it is treated, assistance with a re-entry plan, and ways to promote adaptive functioning while at school. Some children find it hard to go back to school, especially if they experience physical changes (e.g., hair loss, weight loss or gain, limb amputation) as a result of their cancer treatment. School participation helps restore a child's normal routine and developmental path, and fosters hope for the future.
- Complicated Grief Therapy is a specialized type of treatment for managing complex symptoms of grief. Parents of children with incurable cancer are at greater risk of experiencing a form of grief that is more severe, prolonged, and debilitating due to the nature of this loss. This treatment commonly targets symptoms that can resemble depression or post-traumatic stress disorder. Among the aims is to help facilitate a transformational process that often involves a re-evaluation of self, life priorities, and relationships in order to move forward in life in a meaningful way without their deceased child.



**Consultation, Teaching, Research.** Psychologists collaborate with other health care providers and provide consultation to community partners and schools to deliver psychological support to patients, families, and staff. Psychologists are often involved in training other allied health and psychology graduate students, as well as in program development and research to advance the psychological care of children and adolescents treated for cancer, their parents, and their siblings.

## Where do I go for more information?

### **For Parents:**

*Children's Oncology Group Family Handbook* (2011). Curesearch Children's Cancer.

[http://www.childrensoncologygroup.org/downloads/ENGLISH\\_Handbook\\_2nd-Screen\\_Viewing.pdf](http://www.childrensoncologygroup.org/downloads/ENGLISH_Handbook_2nd-Screen_Viewing.pdf)

*Childhood Cancer: A Guide for Families* (2009). Canadian Cancer Society.

[http://www.cancer.ca/~media/cancer.ca/CW/publications/Childhood%20cancer/ChildhoodCancer\\_2009\\_EN.pdf](http://www.cancer.ca/~media/cancer.ca/CW/publications/Childhood%20cancer/ChildhoodCancer_2009_EN.pdf)

### **For Children and Adolescents:**

*Chemo, Crazyness & Comfort: My book about childhood cancer.* Nancy Keene, American Childhood Cancer Foundation, 2002. (For ages 6-12)

*Imagine What's Possible: Use the Power of Your Mind to Take Control of Your Life During Cancer.* Skole & Skole. American Cancer Society, 2011. (Grades 4 through 6)

*Childhood Cancer Survivors: A Practical Guide to Your Future.* Keene, Hobbie, Rucione. O'Reilly & Associates Inc., 2007.

### **For Siblings and Classmates:**

*Drums, Girls & Dangerous Pie.* Sonnenblick, Scholastic Inc, 2006. (Siblings, ages 12 and up)

*When Your Brother or Sister has Cancer: A guide for Teens.* National Cancer Institute, 2013.

<http://www.cancer.gov/publications/patient-education/When-Your-Sibling-Has-Cancer.pdf>

*This fact sheet has been prepared for the Canadian Psychological Association by Drs. Danielle Cataudella, Psy.D., C.Psych., Cathy Maan, Ph.D., C.Psych., Andrea Downie, Ph.D., C.Psych., and Ann Klinck, Psych. Assoc., C.Psych.*

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Your opinion matters! Please contact us with any questions or comments about any of the *Psychology Works* Fact Sheets: [factsheets@cpa.ca](mailto:factsheets@cpa.ca)

Canadian Psychological Association  
141 Laurier Avenue West, Suite 702  
Ottawa, Ontario K1P 5J3  
Tel: 613-237-2144  
Toll free (in Canada): 1-888-472-0657