**Introduction**

For over thirty years, Children’s Wish Foundation of Canada has been granting the single most heartfelt wishes of Canadian children who are diagnosed with a life-threatening illness. Every day, Children’s Wish grants approximately three wishes, totaling nearly 25,000 wishes since its inception.

For the first time in Canada, there is new evidence to support that the wishes granted by Children’s Wish are of meaningful and measureable value to both children and families. The positive emotions a child enjoys when planning and experiencing their wish have a powerful impact on their family and their healing process. The distraction provided by the wish is important to the treatment process and may help to diminish negative side effects. Recent evidence demonstrates that there are positive physical benefits resulting from the planning and experience of a wish. These benefits have a monumental, lasting impact on the child and their family.

It is important to understand the lasting impacts of the wishes granted by Children’s Wish and how they have become a key part of the child and family’s journey when battling a life-threatening illness in Canada.

**Understanding the Context**

The framework in which Children’s Wish is operating is transforming. More children than ever before are surviving illnesses that would have taken their lives in the past. This is in part due to the different medical and non-medical practices that have emerged in recent decades. In addition to better clinical practices, there is a growing awareness of the importance of non-medical psychosocial and psychosomatic programs and services in treating seriously ill patients.

The impact of serious illnesses on psychosocial and psychosomatic health is a growing field of research. In a 2012 article, Psychosocial Care in Cancer, published by Springer Science+Business Media, recent research covering major topics in psycho-oncology, including distress, delivery of care, psychoneuroimmunology, and cognitive deficits related to cancer, is reviewed. Findings from the featured research studies in this article demonstrate that significant patient distress is often long lasting and has negative effects on treatment and healing. As a result of this field of research, the practice of psychosocial care has emerged. Psychosocial care focuses on the emotional and cognitive needs of the patient, and reducing the stress they experience from their illness. Beyond this, the importance of adapting psychosocial care to younger patients is receiving attention in articles like Psychosocial Care of Adolescent and Young Adult Patients with Cancer and Survivors, published by the Journal of Clinical Oncology, which reviews evidence-based psychosocial support interventions and provides recommendations to promote the ability of young patients to cope with their illness.

Despite these findings, and unlike clinical care, there has been very little in the way of evidence-based research to substantiate the impact and value that these psychosocial programs have on children and their families. In identifying this growing trend, Children’s Wish recognized the importance of assessing their own value and the impact their wishes have on children and families who are coping with a life-threatening illness. To better understand the broader impact of wishes, healthcare providers, families of wish children, and the wish children themselves, were interviewed and a survey was conducted with parents of wish children.

The value that Children’s Wish provides is being uncovered in this new landscape. This marks the beginning of Children’s Wish assessing the wider and lasting value of their wishes, which has already lead to remarkable findings that we are excited to share.

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1 Artherholt & Fann, 2011
2 Isaacson & Zebrack, 2012
3 To learn more about the survey, please see Appendix A.
Impact on Emotions

It is undeniable that wishes have a positive impact on the emotions of children suffering from life-threatening illnesses. The results from the 2016 Impakt Survey for Children’s Wish Foundation of Canada show that parents notice an increase in the happiness of their child during the planning and experience of the wish, and after the wish was completed. Only 31% of parents surveyed rate their child’s happiness level as “very high” before the wish. This rating jumps to 57% during the planning of the wish, and 94% after the wish has been completed. 33% of parents surveyed rate their child’s happiness level as “low” or “very low” before the wish, and no parents use this rating during the wish experience or after the wish was completed. Healthcare providers and family members say the planning and experience of the wish made the wish child happy, often for the first time in a long time. For Christina, mother of Emily, “It is impossible to put a value on the constant happiness I saw in Emily.” In children especially, it is important to have positive experiences in the midst of difficult times.

In addition to their child’s increased happiness, parents notice that their children are more hopeful, more grateful, and less isolated after their wish. The Impakt Survey revealed over a 10% jump in the child’s hopefulness after their wish was completed. For Derri, a wish parent, “The value of the wish is that it gave [Cole] and the family hope. In dark moments when he was at his sickest, there was something to talk to him about to give him hope. It truly was priceless.” Almost 75% of parents who were surveyed agree that their child felt isolated from other children their age. This number decreases to just under 50% during the planning stage, and after the wish, only just over 25% agree that their child felt isolated. In addition, there was an 18% jump in parents rating their child’s gratitude level as “high” from before to after the wish. These increases in positive emotions are of great benefit when a child is struggling with a serious illness and going through an incredibly difficult time.

The wish experience also increases overall family cohesion and support. Parents who were surveyed and interviewed agreed that the wish helped all family members build closer bonds with each other, and also helped them to cope with the illness. According to the Impakt Survey, before the wish 31% of wish parents strongly agreed that there was time set aside for family, and after the wish 74% of parents agreed with this statement. The vast majority also agreed that it increased communication between the whole family. Dr. Bruce Crooks from the IWK in Halifax, and a referring medical partner to Children’s Wish, knows that the wish “is part of making the family whole again.” The family is the child’s main support system while they are undergoing treatment, and their strength being raised can impact the young patients directly.

“I can see in my patients that happiness and hope and positive emotions can and do impact their recovery.”

- Dr. Sarah Gander
General Pediatrician, Saint John Regional Hospital, Previous Member of Children’s Wish Medical Advisory Committee

Though the positive emotions resulting from wishes may have been recognized in the past, what has not been fully understood is recognizing how these positive emotions affect the child and their family. Beyond making the child and their family feel better emotionally – which is extremely important in itself – there are studies that show the relationship between positive emotions and healing. Specifically, a review commissioned by Elsevier examined the emotions associated with serious diseases including cancer, HIV, cardiovascular disease, and autoimmune disorders in order to understand how emotions are connected to these illnesses. In this paper, Barak asserts that “emotional responses are components of complex physiologic interactions that affect the body’s ability to
remain or become healthy or to resist or overcome disease.\textsuperscript{6} This paper includes studies that reveal that positive emotions induce an increase in secretory immunoglobulin A (an antibody important in immune function) and a decrease in salivary cortisol (a stress-induced hormone that suppresses the immune system and slows bone formation). In addition, a 2015 study conducted on behalf of the Journal of Health Psychology about wish granting reveals that feelings of gratitude are an important factor in resilience and may help towards improving physical health status.\textsuperscript{7} Studies assessing the psychosocial care of children, like that conducted by Weinter et al., reinforce the importance of families experiencing positive emotions, as “the emotional well-being of the parent has been shown to influence child mood and coping.”\textsuperscript{8} According to Dr. Jeremy Friedman, Chief of Pediatric Medicine and Associate Pediatric-in-Chief at SickKids and the head of the Children’s Wish Medical Advisory Committee, “there is no doubt that the more depressed a child is, the less well they do at every level, and the happier they are, the more likely they can fight off the illness.”\textsuperscript{9} Positive emotions experienced by these young patients during the wish granting process can have important effects on their treatment.

**Impact on Distraction**

The wish and the planning of the wish provides children battling against life-threatening illnesses an important distraction tool. 96% of parents surveyed agree that the planning of the wish, and even memories of the wish, provided a distraction from their child’s treatment or illness. Morgan, a wish parent, shared how she and her son Conor, then 3, would sketch drawings of the tree house he was getting as his wish, which gave him something else to focus on besides his chemotherapy treatment.\textsuperscript{10}

This distraction not only helps take the child’s mind off their illness, but it may also help reduce some of the negative side effects of treatment. Pediatric patients identify pain and nausea as the two most prevalent symptoms of cancer treatment.\textsuperscript{11} Having a mental distraction from the treatment can reduce these symptoms. Current Biology published a study in 2012 that examined how attention can modulate responses to pain. This study demonstrated that the perception of pain can be reduced with mental distraction by inhibiting pain signals in the spinal cord.\textsuperscript{12} Michelle, a wish mom, shared that in the days leading up to her daughter Paige’s reveal of her wish tree house, she was not sick to her stomach like she usually was.\textsuperscript{13} Dr. Sarah Gander, General Pediatrician at Saint John Regional Hospital and former member of Children’s Wish Medical Advisory Committee, explains the difference a wish makes in the nausea of her patients. Children undergoing treatment often focus on whether it will make them feel sick, so they usually do experience physical symptoms. When they are able to have their mind on other things, however, they forget about feeling ill and no longer experience the usual nausea.\textsuperscript{14}

Many wish parents shared with us that they were able to use the wish as a motivator for their children to get through or resume their treatments and/or surgeries. This motivation proves priceless to parents. For wish mom Allison, “knowing that Robyn had to get through the surgery first and then she would go on a wish trip was essential to motivating her to stay positive and focused through the surgery.”

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\textsuperscript{6} Barak, 2006
\textsuperscript{7} Chaves, Vasquez & Hervas, 2015
\textsuperscript{8} Weiner et al., 2014
\textsuperscript{9} Friedman, 2016
\textsuperscript{10} Pisni-Ray, 2016
\textsuperscript{11} Miller, Jacob & Hockenberry, 2011
\textsuperscript{12} Spreger et al., 2012
\textsuperscript{13} Hansen, 2016
\textsuperscript{14} Gander, 2016
Physical Impacts

Beyond the positive physical impacts discussed above as a result of positive emotions and distraction, wishes are able to provide other essential physical outcomes to children battling life-threatening illnesses. Through our analysis, we found that the experience and planning of the wish increases the energy levels of most pediatric patients. This also has an impact on their level of physical activity, which is significantly higher after participating in the wish. We learned from Dr. Heather Hodgson-Viden, Assistant Professor, Department of Pediatrics at the University of Saskatchewan and referring medical partner of Children’s Wish, that her patients come back from their wish with a renewed sense of vigour. The immune system requires energy to function, so the increases in energy experienced by wish children can provide a much needed boost for the immune system. Susan, a wish mother, shares that increased energy can make a world of difference, even if it is something simple like walking into an appointment and leaving the wheelchair at the door, like her child Addison did.

A wish can help reduce the physical toll that treatment and illness can take on a child. According to wish parents that were surveyed, over a third agree that the treatment was taking less of a physical toll on their child after the wish had been completed. This has a positive impact on the child’s overall quality of life.

“As a doctor, I can optimize medication to relax or reduce my patient’s pain. But allowing them a wish is in many cases as therapeutic as most of the medical things I can do for them.”
- Dr. Jeremy Friedman, Chief of Pediatric Medicine and Associate Pediatrician-in-Chief at SickKids and the head of the Children’s Wish Medical Advisory Committee

Medical professionals have asserted that the experience of a wish has helped their patients better adhere to treatment plans and has increased the likelihood that the patients take their medication. Dr. Jamie Gruman, Associate Professor of Organizational Behaviour at the University of Guelph, is currently conducting research on happiness and the effects of wish granting. Dr. Gruman attests that wishes can lead to better treatment compliance in young patients. Complying with treatment plans can sometimes be a struggle with young patients, but with the positive outcomes from a wish, many are more willing to comply.

Parents are able to recognize important changes in their child because of a wish. According to parents surveyed, 93% agree that the wish was an essential part of their child’s healing or treatment, and 100% agree that they saw noticeable changes in their child after their wish was completed.

Many medical professionals shared anecdotes about the positive physical impacts they observe in their patients. Through his experience working with Children’s Wish, Dr. Paul Kantor, Professor & Divisional Director of Pediatric Cardiology at the Stollery Children’s Hospital and a member of the Children’s Wish Medical Advisory Council, has recognized how the positive outcomes of the wish, including hope and happiness, can help the child to recover.

Impacts that Last

Not only are these afore mentioned impacts significant to the child and the family during their illness and treatment, but they also have long lasting effects. 93% of wish parents agree that their wish experience has influenced their child’s future and/ or life goals. Adam wants to work for Caterpillar after visiting their headquarters for his wish, Sabrina will audition for The Voice after her confidence was boosted by singing with her favourite band for her wish, Hunter became a professional chef after meeting Chef Michael Smith for his wish, and Emily who is now an airline attendant with Air Transat after she travelled with them as the airline partner of Children’s Wish. 100% of parents agreed that their wish

15 Gruman, 2016
16 Kantor, 2016
provided long-lasting and positive changes for their family. Michelle shared with us that the impact of her daughter Paige's wish “will last forever”. Many wish children remain engaged with Children’s Wish and continue to feel the effects of their wish years later.

“The deep and powerful impact of Robyn’s wish has lasted in each of our family members. Six years later, all of us continue to remember and celebrate [the wish]. The wish has made Robyn into the woman she is today.”
- Allison, wish mother

The wish experience allows children and their families to find a happy memory in a difficult time. 94% of survey respondents strongly agreed that their wish experience was an important and positive experience. Christina, a wish parent, said that her daughter Taylor “still talks about her wish all the time, and it lets her focus on being positive. [The value] is everlasting!”

The fact that these wishes go beyond the immediate present is priceless for most families, and furthers the value of Children’s Wish to these families.

Conclusion

As evidenced above, research has revealed that Children’s Wish is more than a transactional wish granting organization. Children’s Wish actually contributes to transformational social and physical change in Canadian children diagnosed with a life-threatening illness, along with their families, in a meaningful and measureable way. The advancement of research on psychosocial care is reinforcing that wishes can be an essential part of treatment for children with life-threatening illnesses. These wishes prove to be an excellent way of providing children with psychosocial treatment that has positive and lasting results.

This emerging evidence has revealed that Children’s Wish is of much more value to children, families and healthcare providers than was previously known. It is undeniable that the children and families who have received a wish through Children’s Wish are able to see and feel the immediate and long-term impacts of their wish. Investing in a wish is more than a simple gift transaction. It is making a profound difference in the lives of children and families, and in our Canadian healthcare system.

“At the same time that I found out about my surgery, I also got a call from Children’s Wish and found out that I was going to Disney World. I didn’t have time to worry or think too much about my surgery because I was excited about planning my trip to Disney. The wish gave me magic. Now my wish is that every child who is sick should have a wish to help them get through it.”
- Robyn, wish child
Appendix A

Impakt Corp created a survey that was completed by 52 wish parents. This survey was distributed on June 24, 2016 and closed on July 14, 2016. It was sent out to a total of 84 candidates. The survey asked agree-disagree statement, rating (1-4) scales, multiple choice questions, and open-ended questions. Comment boxes were included in most questions for additional information. The bulk of the survey asked candidates to measure the impacts of the wish on the child and on the family. If you would like more details on the survey please contact Children's Wish directly.

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