Treating anxiety disorders

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Challenging children’s fears
Anxiety disorders are the most common mental disorders that children face. We discuss the number of children affected and the typical course of these disorders.

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Successfully treating childhood anxiety
We conducted a systematic review of the latest studies on treating childhood anxiety. This research revealed several innovations in using cognitive-behavioural therapy in different formats and at different developmental stages.

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Fighting anxiety from the front lines
Aware that cognitive-behavioural therapy is highly effective in helping children and youth deal with anxiety, we sought out a psychologist who not only practises the therapy but who also teaches others how to use it.

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Stopping stigma
We respond to a reader’s question about whether our policy of keeping children’s identities private actually perpetuates the stigma associated with mental disorders. We also identify steps that everyone can take to help reduce stigma.

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How to Cite the Quarterly
We encourage you to share the Quarterly with others and we welcome its use as a reference (for example, in preparing educational materials for parents or community groups). Please cite this issue as follows:

While most children do not experience problematic worries, anxiety disorders are nevertheless the most common mental disorders in childhood. An estimated 6.4% of children (or 40,000 in BC) have severe enough problems to warrant a diagnosis.\textsuperscript{1–3} The most common anxiety disorders and average ages of onset are outlined in Table 1.

**Table 1: Common Childhood Anxiety Disorders**

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Description</th>
<th>Average Age of Onset\textsuperscript{3}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generalized anxiety disorder</td>
<td>Excessive worries about multiple concerns, coupled with mental and physical symptoms, e.g., poor concentration, insomnia, muscle tension</td>
<td>6 years</td>
</tr>
<tr>
<td>Specific phobia</td>
<td>Extreme fear of an object or situation, e.g., an animal or thunderstorms</td>
<td>6 years</td>
</tr>
<tr>
<td>Social phobia</td>
<td>Severe and persistent fear of being humiliated or embarrassed in social situations, e.g., speaking in class</td>
<td>7 years</td>
</tr>
<tr>
<td>Separation anxiety disorder</td>
<td>Excessive fear about being separated from important individuals, e.g., parents or caregivers</td>
<td>9 years</td>
</tr>
<tr>
<td>Obsessive-compulsive disorder</td>
<td>Recurring intrusive thoughts accompanied by excessive behaviours, e.g., frequent checking to make sure doors are locked</td>
<td>10 years</td>
</tr>
<tr>
<td>Panic disorder</td>
<td>Repeated unexpected severe anxiety attacks that begin abruptly, peak quickly and include physical symptoms, e.g., racing heart, nausea</td>
<td>13 years</td>
</tr>
<tr>
<td>Posttraumatic stress disorder*</td>
<td>Persistent intrusive recollections of the trauma, e.g., nightmares, coupled with physical and mental symptoms, e.g., sleep problems, hypervigilance</td>
<td>Not reported</td>
</tr>
</tbody>
</table>

* Additional information on posttraumatic stress disorder and childhood traumas is featured in a previous Quarterly issue.

**The importance of careful assessments**

Any child suspected of having an anxiety disorder should be carefully evaluated by a qualified mental health professional. During such assessments, practitioners will inquire about not only anxiety symptoms but also additional areas of the child’s life. Doing so enables them to differentiate between anxiety disorders and other potential problems, such as mood concerns. Practitioners will also distinguish anxiety problems from other concerns by being aware of how anxiety can present differently across various developmental stages. For example, younger children may have somatic complaints that can easily be mistaken for physical...
health problems, while adolescents may display irritability and anger that can easily be mistaken for "bad behaviour." As well, by judiciously assessing concerns, practitioners can distinguish between anxiety disorders that share similar characteristics (highlighted in Table 1).

The course of anxiety disorders

Most anxiety disorders wax and wane. In fact, after three to four years, as many as 80% of children no longer meet criteria for the anxiety disorders with which they were first diagnosed. Still, children who are diagnosed with an anxiety disorder are at increased risk of having the same anxiety disorder or a different one in the future. Young people who experience severe anxiety — associated with high levels of impairment — are particularly likely to have their disorders persist. However, as we highlight in our review article, effective treatments are available for children to help stop these disorders and to prevent them from reoccurring.

Children with anxiety disorders often experience additional challenges. In particular, they are eight times more likely to experience depression. They are also more likely to experience severe behavioural problems such as conduct and attention-deficit/hyperactivity disorders. Overall, there is strong evidence that childhood anxiety disorders are associated with a high degree of long-term disability and distress, in part because of these concurrent difficulties.

Consequently, children with anxiety disorders require a high level of treatment and support, as do their families.

Balancing prevention and treatment

Because anxiety disorders affect many thousands of children, clinical treatment programs cannot reach them all. Policy-makers therefore need to consider ongoing investments in prevention programs that can reduce the incidence, so fewer children experience problematic anxiety. We identified a number of such programs in the previous issue of the Quarterly. In addition to investing in prevention programs, policy-makers need to ensure that children with severe anxiety are identified early and provided with effective treatments. The review article that follows examines the latest research evidence on these treatments.
Successfully treating childhood anxiety

Because childhood anxiety disorders are such an important public health concern, the Children’s Health Policy Centre team has conducted two previous systematic reviews on treating them effectively. In our 2004 research report, we found that cognitive-behavioural therapy (CBT) was effective for treating most anxiety disorders. Because of the potential for serious side effects, we also suggested limiting medications to fluoxetine and using this only in the most severe cases. We based these conclusions on data from randomized controlled trials (RCTs).

In the summer 2007 Quarterly, we uncovered four new RCTs — all evaluating CBT. Based on the cumulative evidence, we concluded that CBT remained the standard of care for treating most childhood anxiety disorders. Since 2007, researchers have continued to evaluate childhood anxiety treatments. Given this, we conducted another systematic review to capture the latest high-quality studies.

Using our usual systematic review methods (see Appendix), we uncovered six RCTs described in 10 different publications, all examining CBT programs. These programs were Cool Kids,10 Coping Cat,11–13 FRIENDS,14–16 Skills for Academic and Social Success (SASS),17 Strongest Families18 and Timid to Tiger.19 Children participating in these programs had a range of anxiety diagnoses, including generalized anxiety, obsessive-compulsive disorder, panic, posttraumatic stress, separation anxiety, and social and specific phobias. Notably, we did not uncover any new medication trials that met our inclusion criteria.

New variations on established treatments

While all the programs were CBT-based, four programs took particularly distinctive approaches. In two cases, programs were delivered without children ever having face-to-face contact with a practitioner. With Timid to Tiger, practitioners taught parents to use CBT techniques with their young children. With Strongest Families, children were given handbooks and videos, then telephone coaching by practitioners; FRIENDS and SASS were delivered in schools.

For more than 20 years, CBT’s effectiveness in treating childhood anxiety disorders has repeatedly been demonstrated.

CBT ESSENTIALS

Cognitive-behavioural therapy (CBT) is the first-line treatment for childhood anxiety disorders. While it can include a variety of techniques, practitioners typically incorporate:

- Education about anxiety
- Progressive muscle relaxation exercises
- Deep breathing techniques
- Challenges to anxiety-provoking thoughts
- Exposure to anxiety-provoking situations

As well, clinicians using CBT can and should involve families. Typically, parents are provided with information and encouragement to support their child’s treatment, including assisting their children through relaxation and exposure exercises.10
Programs were evaluated in Canada (*Strongest Families*), the United States (*Coping Cat*, *FRIENDS* and *SASS*), Australia (*Cool Kids*) and the United Kingdom (*Timid to Tiger*). *Coping Cat* and *FRIENDS* were assessed in two different formats: child only, and parent and child together. Table 2 provides more details about studies and participants.

<table>
<thead>
<tr>
<th>Child Ages (years)</th>
<th>Program Elements</th>
<th>Control Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>2–9</td>
<td><em>Timid to Tiger</em>: 10 group parent sessions (n = 38)</td>
<td>Waitlist (n = 36)</td>
</tr>
<tr>
<td>6–12</td>
<td><em>Strongest Families</em>: 13 individual child telephone coaching sessions + parent &amp; child handbooks &amp; videos (n = 50)</td>
<td>No treatment (n = 41)</td>
</tr>
<tr>
<td>7–11</td>
<td><em>FRIENDS</em>: 11 group child sessions (n = 20) OR <em>FRIENDS</em> + parent training: above + 9 group parent sessions (n = 17)</td>
<td>No treatment (n = 24)</td>
</tr>
<tr>
<td>7–14</td>
<td><em>Coping Cat</em>: 16 individual child sessions (n = 55) OR Family CBT: 16 family sessions (children provided with <em>Coping Cat</em> workbook) (n = 56)</td>
<td>Family support, attention &amp; education (n = 50)</td>
</tr>
<tr>
<td>7–16</td>
<td><em>Cool Kids</em>: 10 group child &amp; parent sessions (with children only, parents only &amp; combined activities) (n = 60)</td>
<td>Group support &amp; attention (n = 52)</td>
</tr>
<tr>
<td>14–16</td>
<td><em>Skills for Academic and Social Success (SASS)</em>: 14 group child sessions + 2 group parent &amp; teacher educational sessions (n = 19)</td>
<td>Group support, attention &amp; education (n = 17)</td>
</tr>
</tbody>
</table>

n Number of participants

**Rigorous evaluations, impressive results**

In all six RCTs, researchers used the gold standard for assessing children’s anxiety outcomes: diagnostic interviews. In most studies, researchers assessed whether children met criteria for both their primary anxiety disorder (i.e., the disorder causing the most impairment) and any other anxiety disorder. Children participating in *Timid to Tiger*, *Cool Kids* and *SASS* were significantly less likely to meet diagnostic criteria for their primary anxiety disorder at final follow-up compared to control children, as Table 3 illustrates. Children participating in *Timid to Tiger*, *Strongest Families* and *Cool Kids* were also significantly less likely to have any anxiety disorder at final follow-up. In addition to diagnostic outcomes, symptom outcomes such as frequency and severity were also analyzed in five of the RCTs. Four programs — *FRIENDS*, *Coping Cat*, *Cool Kids* and *SASS* — significantly reduced these symptom outcomes, with moderate to large effect sizes. Taken together, these findings once again demonstrate CBT’s effectiveness in treating childhood anxiety.
CBT can be successfully used with children across a range of developmental stages — from toddlers to teens.

Nuancing CBT

For more than 20 years, CBT’s effectiveness in treating childhood anxiety disorders has repeatedly been demonstrated. But now, researchers are asking and answering more nuanced questions, refining what we know about CBT. The new studies we examine here suggest several important lessons.

First, by carefully designing the control groups, researchers have shown that simply having an adult pay extra attention to children (or to their parents) is not what makes CBT effective. Rather, as Cool Kids, Coping Cat and SASS demonstrate, it is CBT’s specific techniques that make these programs beneficial.

Second, our review reveals that CBT can be successfully used with children across a range of developmental stages — from toddlers to teens. Notably, Timid to Tiger demonstrated that CBT worked with children as young as two years.

Third, our review reveals that CBT can be used effectively even with children who have complex clinical concerns. Most children involved in Cool Kids, Coping Cat and Timid to Tiger (plus a third of those involved in FRIENDS) had at least two concurrent anxiety diagnoses. As well, 42% of children in SASS and 26% in Strongest Families had at least two mental disorders (of various other types). These new studies provide strong evidence that CBT can work well for children who have multiple mental health problems.
Fourth, these six studies show that the one-to-one child-to-practitioner model is not the only route to success. Rather, practitioners can use CBT in various formats — with individuals, with groups and with parents. Strikingly, the *Timid to Tiger* trial reveals that CBT can even be successful when children do not directly participate.

Fifth, these new studies establish that CBT’s utility is not limited to traditional clinical settings. *FRIENDS* and *SASS* were effectively delivered in schools. As well, with *Strongest Families*, children made significant gains using videos and handbooks at home, augmented by telephone coaching by practitioners (and parent education).

**Applying the findings to help more children**

Given the strong evidence that CBT is effective for anxiety disorders, practitioners can be confident that by using it, they are providing children with a highly effective treatment. Also, because the programs evaluated in this review are all described in treatment manuals, practitioners with experience using CBT should be able to implement them easily.

But our review has additional implications. Currently, fewer than 25% of children with anxiety and other mental disorders are receiving the clinical treatment services they need, a critical shortfall.¹ These six new studies suggest ways that CBT can be delivered more efficiently, potentially reaching many more children even with existing resources — by training parents, by treating children in groups, by using unconventional treatment settings such as schools and homes, and by using new approaches such as telephone coaching with practitioner support. Extending the reach of clinical services in innovative ways like these is crucial if we are going to move from treating the minority of children with anxiety disorders to treating the majority.
Fighting anxiety from the front lines

Anxiety is the “common cold of mental health,” according to registered psychologist Sarah Newth. Besides being ubiquitous — about 1 in 10 children face some sort of anxiety problem — anxiety is also costly. For example, children with anxiety often miss school or avoid their peers, which can lead to long-term adult problems such as isolation and underemployment. And, of course, it leads to serious distress, stopping children from doing things they’d really like to do and sometimes isolating them from family and friends.

Unlike the common cold, however, there is a proven treatment for anxiety. That treatment is cognitive-behavioural therapy or CBT.

As a registered psychologist who uses CBT with children and as a trainer for other therapists in BC and Saskatchewan, Newth says that she especially enjoys being on the front lines. “One of the things I love about doing CBT is that it really does work,” she says. “When you have a child and family that are willing to participate, it’s amazing to see the results.”

Gradually approaching the feared task

According to Newth, the main reason CBT is so effective is its “gradual exposure component.” She says that if she were forced to abandon all other aspects of CBT, she would choose to retain just this one because it “gets right at the heart of the main factor that causes people to maintain their anxiety.”

Gradual exposure involves helping children take small steps toward what they fear while also reducing what therapists call “excessive safety behaviours.” Excessive safety behaviours are actions children take to try to reduce their anxiety. Unfortunately, while such behaviours may reduce anxiety momentarily, they end up perpetuating it in the long run.

If, for example, a child is terrified of being separated from parents or caregivers, excessive safety behaviours would include the child’s ongoing efforts to stay in close proximity to them. To address this, Newth says, “We would then set up what we call a ‘fear ladder,’ where we ranked items that involve practising being in the feared situations.” At the bottom of the ladder would be a small step — perhaps having the parent leave the child at home with an older sibling for 30 minutes. The next step might involve the child spending one hour at school, building toward full attendance.

“The key word is gradual,” Newth says. “A skilled CBT therapist is able to tap into the feelings of children so they feel masterful. The further they go, the kids start to get so pumped up. Kids love to master things. It’s a very powerful tool for us.”

“A skilled CBT therapist is able to tap into the feelings of children so they feel masterful.”

Sarah Newth, Registered psychologist
Training therapists in CBT

Fortunately, kids aren’t the only ones who love to master CBT. Newth says that most of the therapists she has trained have also been highly motivated. “In fact, some of them are frustrated that their own schooling programs didn’t include CBT,” Newth says. Recently, she trained a large number of therapists for the BC Ministry of Children and Family Development.

What’s most encouraging about CBT, according to Newth, is that with the appropriate training, just about anyone can learn to do it. “What’s key is the training and the experience,” she says. A wide variety of people can use the therapy, including social workers, psychologists, teachers and parents. “That’s what’s so exciting about it,” Newth says. “We have a huge array of individuals who can participate.”

Ending the suffering

Unfortunately, the very nature of anxiety means that many children who suffer from it go unnoticed. These kids seldom cause problems in the classroom — and, as a result, suffer in silence, their difficulties going undetected for years. “I see many adults who talk about their problems going right back to childhood,” Newth says. “The sooner we treat, the better.”

That’s why she’s pleased that many countries are starting to emphasize the value of this early intervention. “Increasingly they’re concluding that we can’t afford not to provide treatment,” she says.
Stopping stigma

To the Editors:
In the most recent issue of the Quarterly, you used a pseudonym for a parent “to protect the privacy of her child.” I was wondering if you could explain the necessity and rationale of doing this so that readers do not get the impression that you are perpetuating the stigma of mental health challenges.

Kelly Czmielewski
Victoria, BC

At the Children’s Health Policy Centre, we are strongly committed to protecting children’s privacy and to shielding them from adversities wherever possible. We therefore choose not to reveal children’s identities in the Quarterly. We believe that such exposure could cause children to pay a price that far exceeds any potential gains.

When a child is publicly identified as having a mental disorder, stigma can be among the cascade of consequences. Stigma can cause families to avoid treatment, meaning that children do not get help as early as they should or even at all.20 Stigma can also lead to bullying and rejection by peers,20 limited social opportunities21 and self-esteem problems.21

How we change attitudes and actions

That said, without question, the stigma associated with mental disorders must be reduced. Collectively, we can all take steps to achieve this goal. As a starting point, television shows and movies could stop portraying people with mental disorders as violent and unattractive.22 These stereotypes could be replaced with more accurate and compassionate depictions, such as those that are often used for physical health problems. Policy-makers, practitioners, teachers, families and advocacy organizations could all engage to address these issues, as many are starting to do.

The widespread use of derogatory language to describe people with mental disorders should also be addressed. When researchers have asked adolescents to describe mentally ill individuals, phrases such as “psycho” and “nutter” are
commonplace. But the problem likely starts with adult attitudes. For example, researchers have also found that one in five adults is unwilling to have his or her own child befriend or be in a classroom with a child who has a mental disorder.

Addressing these attitudes could go a long way toward reducing the stigma associated with mental disorders. Then, collectively, we can all take steps to help protect children’s rights. For instance, schools can ensure that children with mental disorders receive supportive learning opportunities alongside their peers, without being negatively singled out.

Many organizations are working to reduce the stigma of mental illness, including the Canadian Mental Health Association, the Mental Health Commission of Canada, the World Health Organization and the Offord Centre for Child Studies. Please visit their websites for more information on actions individuals can take to help curb this problem.

Contact Us

We hope you enjoy this issue. We welcome your letters and suggestions for future topics. Please email them to chpc_quarterly@sfu.ca or write to the Children’s Health Policy Centre, Attn: Jen Barican, Faculty of Health Sciences Simon Fraser University, Room 2435, 515 West Hastings St., Vancouver, British Columbia V6B 5K3 Telephone (778) 782-7772
Research methods

For our reviews, we use pragmatic systematic methods adapted from the Cochrane Collaboration. We first searched the following databases: Medline, PsycINFO, CINAHL and ERIC. We limited our search to randomized controlled trials (RCTs) published between 2007 and 2012, because our previous issue and research report included trials published prior to these dates. We then assessed retrieved studies using the inclusion criteria detailed in Table 4.

Two different team members then assessed each retrieved article. Any differences regarding inclusion were discussed until consensus was reached. We accepted six RCTs using this approach.

<table>
<thead>
<tr>
<th>Table 4: Inclusion Criteria</th>
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<tbody>
<tr>
<td><strong>Basic Criteria</strong></td>
</tr>
<tr>
<td>• Peer-reviewed articles published in English about children aged 0–18 years</td>
</tr>
<tr>
<td>• Interventions specifically aimed at treating anxiety disorders</td>
</tr>
<tr>
<td><strong>Original Studies</strong></td>
</tr>
<tr>
<td>• Clear descriptions of participant characteristics, settings and interventions</td>
</tr>
<tr>
<td>• Majority of children met criteria for an anxiety disorder diagnosis</td>
</tr>
<tr>
<td>• Random assignment of participants to intervention and control groups at study outset</td>
</tr>
<tr>
<td>• Follow-up of three months or more (from end of intervention, including booster sessions)</td>
</tr>
<tr>
<td>• Maximum attrition rates of 20% at follow-up or use of intention-to-treat analysis</td>
</tr>
<tr>
<td>• Outcome measures included diagnostic assessments</td>
</tr>
<tr>
<td>• Reliability and validity of all primary measures documented</td>
</tr>
<tr>
<td>• Levels of statistical significance reported for primary outcome measures</td>
</tr>
</tbody>
</table>
BC government staff can access original articles from BC’s Health and Human Services Library (www.health.gov.bc.ca/library/).


2012 / Volume 6
1 - Preventing Problematic Anxiety

2011 / Volume 5
4 - Early Child Development and Mental Health
3 - Helping Children Overcome Trauma
2 - Preventing Prenatal Alcohol Exposure
1 - Nurse-Family Partnership and Children's Mental Health

2010 / Volume 4
4 - Addressing Parental Depression
3 - Treating Substance Abuse in Children and Youth
2 - Preventing Substance Abuse in Children and Youth
1 - The Mental Health Implications of Childhood Obesity

2009 / Volume 3
4 - Preventing Suicide in Children and Youth
3 - Understanding and Treating Psychosis in Young People
2 - Preventing and Treating Child Maltreatment
1 - The Economics of Children's Mental Health

2008 / Volume 2
4 - Addressing Bullying Behaviour in Children
3 - Diagnosing and Treating Childhood Bipolar Disorder
2 - Preventing and Treating Childhood Depression
1 - Building Children's Resilience

2007 / Volume 1
4 - Addressing Attention Problems in Children
3 - Children's Emotional Wellbeing
2 - Children's Behavioural Wellbeing
1 - Prevention of Mental Disorders