INTERNET-DELIVERED EXPOSURE THERAPY TRAINING FOR PARENTS OF CHILDREN WITH ANXIETY: THERAPIST AND PARENT PERCEPTIONS OF USABILITY

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Katherine Jane Mazenc, candidate for the degree of Master of Arts in Clinical Psychology, has presented a thesis titled, *Internet-Delivered Exposure Therapy Training for Parents of Children with Anxiety: Therapist and Parent Perceptions of Usability*, in an oral examination held on August 29, 2017. The following committee members have found the thesis acceptable in form and content, and that the candidate demonstrated satisfactory knowledge of the subject material.

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Abstract

Cognitive behaviour therapy (CBT) has been identified as an effective form of treatment for childhood anxiety disorders, but many families are unable to access it. One possible way of increasing access to treatment is by providing online CBT training to parents so that they can implement CBT with their children at home. Exposure therapy is a particularly beneficial component of CBT but poses unique challenges in the development of a parent-administered, Internet-delivered CBT (ICBT) program, as research suggests that parents may be hesitant to implement exposure techniques with their children. Few studies have investigated ways to address such challenges. The aim of the present study was to develop and test the usability of a parent-administered, online exposure therapy module. The exposure therapy module was created in conjunction with six other modules, which together comprised a larger, parent-administered, ICBT program. The program, titled The Child Anxiety Course for Parents, was based on the University of Manitoba’s self-help, parent-administered Coaching for Confidence program, but was modified to reflect a therapist-guided mode of delivery. An iterative approach was used to test four domains of the module’s usability: acceptability, clarity, user-friendliness, and feasibility. During the first testing iteration, 10 therapists reviewed the exposure therapy module and provided verbal feedback during focus groups. Their feedback was analyzed using a thematic analysis approach and was incorporated into further development of the module. The primary suggestions that emerged from therapist feedback were to: include more detailed information for parents; provide parents with more encouragement; and incorporate references to information contained in other modules of the program (e.g., cognitive restructuring). Therapists also expressed
satisfaction with the proposed mode of therapist guidance (i.e., a weekly check-in e-mail message from a therapist), although some suggested increasing the contact to twice per week. During the second testing iteration, five parents of children with anxiety reviewed the module, provided verbal feedback during individual sessions, and completed usability questionnaires. Descriptive analyses were used to assess usability ratings while thematic analysis was once again employed to analyze verbal feedback. Parent feedback was generally favourable, as parents relayed high levels of satisfaction with module content and with the prospect of a weekly check-in with a therapist. The primary suggestion for module improvement was to include more examples showcasing the implementation of exposure therapy. Based on parent feedback, the exposure therapy module was finalized. Changes to the module from therapist and parent feedback resulted in an acceptable, clear, user-friendly, and feasible exposure therapy module ready to be implemented and its efficacy evaluated in further studies. Findings are expected to inform future research into parent-administered exposure therapy for childhood anxiety disorders. Furthermore, The Child Anxiety Course for Parents, which is expected to eventually serve as a treatment option for families in Saskatchewan, is one of the only known therapist-guided, parent-administered programs delivered entirely via the Internet. By contributing to the development of such a program, the present study may ultimately assist in increasing children’s access to mental health services, thereby reducing anxiety among Saskatchewan children.
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Dedication

This project is dedicated to my family.

To my parents, Rose Marie and Emile: You have been an unwavering source of support, encouragement, and motivation. Mom, thank you for introducing me to your love of learning and for your endless enthusiasm in my work. Dad, thank you for your patience and humour as I move through my lengthy academic journey.

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1.0 Introduction

1.1 Overview

Childhood anxiety disorders have a negative impact on children’s academic, social, and family functioning, and often persist into adulthood if left untreated (Children’s Health Policy Centre, 2012). While cognitive behaviour therapy (CBT) has been identified as an effective method of treatment for child anxiety, many families face barriers in accessing it (Rapee, Schniering, & Hudson, 2009). One way to address barriers is through parent-administered CBT, in which parents learn how to implement CBT strategies with their children. Researchers have developed parent-administered CBT programming in which training is provided through workbooks and periodic face-to-face or telephone contact with a therapist (Thirlwall et al., 2013; Rapee, Abbott, & Lyneham, 2006). It may be possible to reach more families by developing a program in which all training is provided over the Internet. However, exposure therapy, which is a particularly beneficial component of CBT, may present unique challenges, as research suggests that parents may have difficulty understanding and implementing certain exposure techniques (Holmes, March, & Spence, 2009). One way to address these challenges is through usability testing during the initial program development phase. Prior research has identified usability testing as an effective and efficient means of developing online therapy programs that are acceptable, clear, user-friendly, and feasible (e.g., Currie, McGrath, & Day, 2010; McMillen & Pehrsson, 2009). Therefore, the purpose of the present study was to develop and test the usability of an online, parent-administered exposure therapy module.
The impetus for this study stemmed from my own rural upbringing. I grew up in a small town where I witnessed the difficulties faced by families seeking mental health services, including barriers related to a lack of trained therapists nearby, as well as concerns about stigma. From this, I developed an interest in online therapy, which has been identified as an efficacious and accessible treatment option for adults with anxiety and depression. Through collaboration with my supervisor, Dr. Lynn Loutzenhiser, I began researching ways to apply online therapy principles to the treatment of childhood disorders. Together, Dr. Loutzenhiser and I came up with the idea of a parent-administered online therapy program. It is my hope that by contributing to the development of such a program through the design of an exposure therapy module, this project will ultimately assist in increasing families’ access to mental health services.

1.2 Child Anxiety

As outlined by the Children’s Health Policy Centre (2012), childhood anxiety disorders are the most common mental disorders in childhood and affect approximately 6.4% of Canadian children. The most frequently occurring of these disorders are generalized anxiety disorder, specific phobia, social anxiety disorder, and separation anxiety disorder. Symptoms of anxiety disorders range from excessive worry about multiple concerns to extreme fear of a specific object or situation. Such symptoms interfere with children’s social, emotional, and academic development, and present a risk in later life for the development of other psychiatric disorders.

In addition to having serious personal consequences for the individual child, child anxiety also poses a societal burden. Estimates indicate that public expenses related to healthcare, school absences, and loss of parent productivity are 20 times higher for
children with anxiety compared to their non-anxious counterparts (Breinholst, Esbjorn, Reinholdt-Dunne, & Stallard, 2012). Because anxiety disorders tend to last into adulthood, societal costs may become long-term (Bodden, Dirksen, & Bogels, 2008). Identifying, developing, and implementing effective and accessible treatment programs for child anxiety can avoid these costs.

1.3 Cognitive Behaviour Therapy

Cognitive behaviour therapy (CBT) has been identified as the treatment of choice for a range of childhood anxiety disorders, including generalized anxiety disorder, specific phobia, and social anxiety disorder (Children’s Health Policy Centre, 2012; Piacentini & Roblek, 2002). Through CBT, children learn to recognize physiological and psychological indicators of anxiety, to reappraise the way they process information, and to modify behaviours that contribute to anxiety (Mendlowitz, 1999). CBT has several components, including psychoeducation regarding the nature of anxiety, cognitive restructuring by identifying and challenging anxiety-provoking thoughts, and systematic exposure to feared situations (Wehry, Beesdo-Baum, Hennelly, Connolly, & Strawn, 2015). During the course of CBT, children also learn techniques for managing somatic reactions and strategies for relapse prevention.

CBT has been found to lead to significant improvements in child anxiety symptoms, as well as reductions in anxiety diagnoses. A systematic review of meta-analyses provides support for the efficacy (i.e., performance under ideal and controlled circumstances) of CBT for treatment of anxiety disorders in both children and adolescents, with effect sizes in the large range (Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012). To examine the effectiveness (i.e., performance in “real-world”
circumstances), Chiu et al. (2013) assessed the performance of CBT programs in elementary schools. Forty children with anxiety disorders were randomly assigned to CBT treatment or a three-month waitlist condition. At post-treatment, 95% of CBT participants had improved, compared with only 16.7% of participants in the waitlist condition. It was concluded that CBT programs for child anxiety are indeed effective in real-world conditions, such as the school setting.

Not only does CBT lead to improvements immediately following treatment, but positive outcomes also appear to carry over into the long-term. One study examined follow-up outcomes associated with CBT for child anxiety by comparing 66 participants who had been either successfully treated or unsuccessfully treated (Benjamin, Harrison, Settipani, Brodman, & Kendall, 2013). The study took place anywhere from six to 19 years following treatment. Results indicated that compared to those who had responded successfully to CBT for an anxiety disorder in childhood, those who had been less responsive ended up with higher rates of panic disorder, alcohol dependence, and drug abuse as adults. It was concluded that when CBT is implemented effectively in childhood, its beneficial effects carry over into the long-term.

Despite empirical support for CBT as an effective treatment, due to its time- and resource-intensive nature, many children do not have access to CBT (Thirlwall et al., 2013). There are a number of obstacles that make it difficult for parents to access CBT programming for their children, including issues related to expense, time, and transportation. Those who live in rural or remote areas are at an even greater risk of encountering barriers to treatment. One possible way of increasing accessibility is through the utilization of low-intensity CBT interventions. These interventions are
becoming increasingly popular in the United Kingdom, where children face similar barriers to treatment, and therefore may also prove beneficial in a Canadian context. Low-intensity interventions are based on traditional CBT (i.e., CBT delivered in-person by a therapist) but are delivered via written materials or information technology, with limited therapist guidance.

One low-intensity intervention that has received empirical support in the treatment of both adult and child anxiety disorders is Internet-delivered cognitive behaviour therapy (ICBT). The online modality of ICBT allows for a greater number of individuals to access treatment and to do so at a time that is most convenient for them. There have been several studies evaluating ICBT programs for adults, as well as a number of studies evaluating ICBT for children. The results of these studies are outlined below.

1.4 Internet-Delivered Cognitive Behaviour Therapy

Online therapy is an increasingly popular form of treatment for a range of psychiatric disorders in adults. More specifically, ICBT is emerging as a viable treatment for disorders such as anxiety and depression. ICBT programs vary in level of therapist involvement, ranging from those that are directed by a therapist (i.e., guided) to those that involve minimal or no therapist support (i.e., unguided). These programs have many advantages over face-to-face therapy, including increased accessibility, anonymity, and cost-effectiveness, as well as improved standardization (Khanna & Kendall, 2010).

There is a large body of research that emphasizes the efficacy and effectiveness of ICBT for adults. For example, Andrews, Cuijpers, Craske, McEvoy and Titov (2010) conducted a meta-analysis of 22 studies that evaluated the efficacy of ICBT for major
depressive disorder, panic disorder, social phobia, and generalized anxiety disorder in adults, compared to a control condition. The mean effect size was .88, suggesting that ICBT is an acceptable form of treatment for these disorders. Additionally, these researchers reviewed five studies that made direct comparisons between ICBT and traditional face-to-face CBT, with results suggesting that both modes of treatment are equally beneficial. Overall, it was concluded that clients generally adhere to and are satisfied with ICBT, despite the significantly reduced amount of contact with a therapist.

More recently, Hedman, Ljotsson, and Lindefors (2012) conducted a systematic review to assess the applications, efficacy, and cost-effectiveness of ICBT for adults. Findings indicated that effect sizes of ICBT were large in the treatment of depression, social phobia, panic disorder, generalized anxiety disorder, post-traumatic stress disorder (PTSD), obsessive-compulsive disorder (OCD), and severe health anxiety. It was concluded that while ICBT for depression, social phobia, and panic disorder are the only treatments classified as “well established,” ICBT appears to be as efficacious as and more cost-effective than traditional CBT.

In recent years, usability studies have been used as a means of providing further direction for the design of online therapy programs. Usability testing is a method of evaluating user performance and acceptance of a product during the process of its development (Kushniruk, 2002). From usability studies, general trends have emerged regarding the structure and layout of online programming. For example, Currie and colleagues (2010) tested the usability of an ICBT program for emotional distress in post-secondary students, and found that participants’ primary suggestions were to enhance program navigation, clarity, efficiency, and aesthetic appearance. Participants
recommended shortening sections of text, reducing repetition, and separating a larger module into two smaller modules. Currie and colleagues noted that this aligned with other literature (e.g., Morkes & Nielson, 1997) suggesting that Internet text should be kept concise by using bulleted lists and avoiding repetition. Their results also reinforced the centrality of using images or graphics that directly relate to the text, rather than including images that exist in isolation and have no connection to the content. Overall, the research from Currie and colleagues suggests that participants may be less receptive to programs that they perceive as text-heavy and lacking in visual appeal.

The Online Therapy Unit for Service, Education, and Research at the University of Regina provides a specific example of a Canadian-based ICBT program for adults with anxiety or depression (Hadjistavropoulos, Alberts, Nugent, & Marchildon, 2014). The program, referred to as the Wellbeing Course, was developed by the eCentreClinic (www.ecentreclinic.org) at Macquarie University, Sydney, Australia. It consists of five modules that provide information and instructions about the cognitive behavioural model, thought challenging, pleasant activity scheduling, graduated exposure, and relapse prevention (Hadjistavropoulos et al., 2016). A detailed description of each module can be found in Titov and colleagues (2015). The program is guided in that each patient is assigned a therapist. As clients progress through the program, they are able to communicate with their therapist using an internal messaging system on the server. As noted by the developers, the program provides “a valuable model for mental health providers and administrators who aim to improve access to evidence-based psychological services” (p. 310).
Within the literature on online therapy for adults, there has also been a great deal of research into the role of therapist contact. As outlined by Andersson, Carlbring, Ljotsson, and Hedman (2013), therapist support is typically provided in the form of answers to questions, encouragement, and feedback on homework assignments, with the majority of support consisting of encouragement. The most common type of support takes the form of text messages, such as e-mail, approximately once a week. This requires the therapist to spend about fifteen minutes per client each week. Other forms of therapist support include having the therapist communicate with the client in real time (i.e., in the form of an online live chat) or providing detailed feedback on the client’s writing assignments. According to Andersson and colleagues, while real time communication and provision of homework feedback are equally as effective as weekly messages, they do not significantly reduce the amount of time spent with each client, and therefore are not as highly accessible. As such, it would seem that weekly therapist e-mail contact might be the optimal form of therapist support.

There are some researchers who believe that therapist support may not actually be necessary at all in online therapy. For example, Berger, Hammerli, Gubser, Andersson, and Caspar (2011) compared an unguided self-help treatment for depression with the same intervention complemented with weekly therapist support. Both treatments were found to result in significant symptom reductions compared to the waitlist control group, and there were no statistically significant differences between the two treatment groups. These researchers concluded that online interventions for depression could be effective with or without therapist support. Gerhards and colleagues (2010) compared an unguided ICBT program with treatment as usual (i.e., through a general practitioner) and
with a combination of ICBT and treatment as usual. They found no significant differences in effectiveness and concluded that ICBT is the most efficient and cost-effective treatment, though they noted that all three treatments showed only modest improvements in depression.

Finally, Furmark and colleagues (2009) evaluated the efficacy of guided and unguided self-help for social anxiety. They compared a CBT self-help program in the form of pure bibliotherapy (i.e., self-help books) to an ICBT program supplemented with therapist support and online group discussions. While the guided ICBT program had the highest effect sizes, comparable effects were noted for bibliotherapy supplemented with online group discussions. It was concluded that unguided self-help through bibliotherapy could produce lasting improvement for individuals with social anxiety disorder. It therefore seems feasible that translating unguided bibliotherapy into an online format could result in similar effect sizes.

Despite such support for certain types of unguided ICBT programs, several reviews and meta-analyses point to improved efficacy when ICBT is delivered with therapist guidance. For example, in their review, Newman, Szkodny, Llera, and Przeworski (2010) found that computerized programs are efficacious in the treatment of anxiety and depression in adults but that there is a pattern of lower compliance when technologies are used with little or no therapist contact. The conclusion was that some structured interaction with a therapist is important in the treatment of various psychological problems. Similarly, Richards and Richardson (2012) conducted a systematic review and meta-analysis of computer-based treatments for depression, and
while results supported the efficacy of these interventions, guided interventions were found to have better outcomes as well as greater retention (i.e., fewer drop-outs).

Spek and colleagues (2007) conducted a meta-analysis on ICBT for symptoms of depression and anxiety, and found that guided interventions had a large mean effect size, whereas unguided interventions had only a small mean effect size. Other meta-analyses on ICBT for depression, such as those by Cowpertwait and Clarke (2013) and Andersson and Cuijpers (2009), also suggest that ICBT is more effective when it is provided with therapist guidance. Finally, Johansson and Andersson (2012) conducted a review on Internet-based treatments for depression and concluded that there is evidence of a strong correlation between degree of therapist support and outcome (i.e., a higher degree of therapist support is associated with better outcomes). Overall, despite some research asserting that unguided therapy may be as beneficial as guided therapy, there is a larger body of literature suggesting that therapist guidance produces superior outcomes.

There have also been online therapy programs developed for children. There are a number of computerized CBT and ICBT programs that have been developed specifically for children with anxiety (e.g., Khanna & Kendall, 2008; Stallard, Richardson, Velleman, & Attwood 2011; Spence, Holmes, & Donovan 2006). Many of these programs are administered directly to the child through interactive lessons, while others feature parent involvement.

A program titled Camp Cope-a-Lot: The Coping Cat CD-ROM is one of the more prominent computerized CBT programs for child anxiety (Khanna & Kendall, 2008). This program is designed for children ages 7 to 13, is computer-assisted, and is administered directly to the child, with no parent component. It consists of 12 sessions.
Six of these are implemented independently, while the remaining six are implemented with the assistance of a therapist or “coach.” The coach ensures monitoring of the child’s symptoms, facilitates completion of the exposure tasks, and provides reinforcement and support as needed. The program developers compared Camp Cope-a-Lot to both face-to-face CBT and to a guided education, support, and attention (ESA) condition (Khanna & Kendall, 2010). At post-treatment, Camp Cope-a-Lot and face-to-face CBT children showed significantly better gains than children in the ESA condition. Eighty percent of children who completed Camp Cope-a-Lot no longer met criteria for their principal anxiety diagnosis, compared to 70% of children in the face-to-face CBT condition and 19% of children in the ESA condition. These findings provide support for the feasibility and efficacy of ICBT for child anxiety.

There are also computer-assisted programs that are designed specifically for older children and adolescents. For example, Stallard and colleagues (2011) examined the benefits of a computer-assisted program that was administered directly to adolescents. Twenty participants aged 11 to 16 with depression or anxiety were randomized to receive the therapy, which involved six computerized sessions led by either a psychologist, teacher, or nurse. Adolescents who received the therapy experienced significant post-treatment improvements on more measures than the waitlist control group. Overall, participants reported moderate to high satisfaction with the program. They found it enjoyable and stated that it had helped them understand and cope with their problems.

In regard to programs featuring parent involvement, Spence and colleagues (2006) developed an ICBT program that includes a parent component. There are two
versions of this program: one for children aged 8 to 12 years and one for adolescents aged 13 to 17 years. The program, BRAVE–ONLINE, consists of 10 weekly child or adolescent sessions, followed by two booster sessions after program completion. The child program also includes six sessions for parents, while the adolescent program includes five parent sessions. As children or adolescents move along in the program, they learn about the physiological signs of anxiety, cognitive restructuring, exposure techniques, and problem-solving techniques. The parents, meanwhile, receive psychoeducation on the nature of child anxiety and information about cognitive restructuring, exposure, and problem solving. The program requires therapists to communicate with parents via email and phone intermittently to guide and reinforce program completion. The adolescent version of this program was evaluated by the developers and identified as equally efficacious as clinic-based, face-to-face therapy; furthermore, both parents and adolescents rated the program as highly credible (Spence et al., 2011). It was concluded that ICBT that includes parent involvement is an acceptable alternative for treating child anxiety.

Some researchers have examined the added benefits of involving parents in CBT, whether it be traditional CBT or ICBT. For example, Mendlowitz, Manassis, Bradley, Scapillato, and Miezitis (1999) compared a child-only intervention to a combined parent-child intervention, and found that involving parents in treatment enhanced treatment outcomes, particularly in regard to children’s coping strategies. Involving parents in treatment may be particularly beneficial because parents are often the ones to initiate and facilitate their child’s engagement in treatment, and are typically in charge of helping their child complete CBT homework (e.g., exposure practice). Therefore, being more
actively involved in treatment can help parents learn more about what is helpful for their child, including how to avoid potential pitfalls (e.g., facilitating the child’s avoidance).

In general, research indicates that ICBT programs have been well received by children with anxiety and their parents (Elkins, McHugh, Santucci, & Barlow, 2011; Richardson, Stallard, & Velleman, 2010). This type of therapy appears equally as efficacious as traditional, face-to-face CBT, and is more accessible (for review, see Rooksby, Elouafkaoui, Humphris, Clarkson, & Freeman, 2015). However, many of the above-noted programs still require a high degree of involvement from therapists, as children need assistance in developing and practicing the learned therapeutic strategies. One way to make low-intensity treatments even more accessible is by having parents, rather than therapists, act as coaches. If parents are able to guide their children through treatment, then this increases program efficiency and allows access to a larger population.

1.5 Parent-Administered Cognitive Behaviour Therapy

Researchers have recently begun to examine the possibility of utilizing parents as a means for providing treatment for child anxiety. In these parent-administered programs, parents, rather than therapists, are the ones to guide their children through therapy. An innovative study in the United Kingdom evaluated the efficacy of a parent-administered, low-intensity CBT program for child anxiety (Thirlwall et al., 2013). Training was provided to parents through face-to-face and telephone sessions with therapists. Participants were randomly allocated to either a full-guided or brief-guided parent-delivered CBT condition. Parents in the full-guided condition received four face-to-face and four telephone sessions with the therapist, while parents in the brief-guided condition received only two of each type of session. At post-treatment, the full-guided
condition produced superior outcomes compared to a waitlist control condition, but the outcomes of the brief-guided condition were not significantly different from those of the waitlist condition. At a six-month follow-up period, children in both the full-guided and brief-guided conditions showed significant improvement in anxiety symptoms compared to children in the waitlist condition. The results of this study provide support for the efficacy of therapist-guided, parent-administered CBT.

Recently, a follow-up study examined the long-term outcomes for 29% of the original study sample three to five years following treatment (Brown et al., 2017). It was found that 79% of all children whose parents received either full- or brief-guided CBT were free of their primary anxiety diagnosis, while 63% were free of any anxiety diagnosis. These findings suggest that therapist-guided, parent-administered CBT has long-lasting benefits.

Another study on parent-administered therapy evaluated the efficacy of a pure bibliotherapy program, in which parent training occurred entirely via a self-help book, with no therapist contact (Rapee et al., 2006). While the program was found to be beneficial in comparison to a waitlist condition, it was not as efficacious as face-to-face treatment. The researchers then added therapist contact to the bibliotherapy program, and found that outcomes were superior to those in the first study (Lyneham & Rapee, 2006). In one condition, therapist contact was provided over the telephone, and in another condition, therapist contact was provided via e-mail. The telephone condition was found to be more efficacious than the email condition, as 79% of children in the telephone condition were free of anxiety disorders post-treatment, compared to 33% of children in the e-mail condition. Similar to the study conducted by Thirlwall et al. (2013), these
findings provide support for parent-delivered CBT as an efficacious first-line treatment for child anxiety. However, based on these results, it would seem that more direct therapist contact (i.e., over the phone) is superior to indirect contact (i.e., via e-mail).

Other studies on parent-administered therapy have focused on potential barriers to implementation. Chavira and colleagues (2014) used two modes of treatment delivery to examine the feasibility of CBT for child anxiety. Parents and children were randomly assigned to receive CBT either delivered by an in-person therapist or implemented by the parent with therapist support via the telephone. Outcome variables assessed included treatment satisfaction, barriers to treatment participation, and dropout rates. Results indicated that both modes of delivery were feasible and associated with significant treatment gains. There were no significant differences in dropout rates between conditions. Furthermore, parents in both conditions reported that barriers such as competing stressors and obstacles were either never a problem or only occasionally a problem. Results provide further support for the efficacy of parent-administered programming in which parents receive telephone support from a therapist, and suggest that obstacles and dropout rates in therapist-guided, parent-administered CBT may not be any more pronounced than those in face-to-face CBT.

One way to ensure that even more families are able to access these parent-administered programs is by providing workbook materials and therapist contact over the Internet, thus reducing cost and therapist time. As previously outlined, there have been a number of studies evaluating ICBT programs for child anxiety, including those featuring parental involvement, with results supporting the feasibility of delivering CBT content
over the Internet. However, there are relatively few ICBT programs that are administered primarily via parents.

Vigerland and colleagues (2013) have provided a rare example of a parent-administered ICBT program through their development and evaluation of program for parents of children with specific phobias. This program is a combined parent-child program, in that the parents receive CBT training and guide their child through the program, but there is also a component that is administered directly to the child. While the first six modules are directed at parents and provide them with information about fear, goals, and exposure hierarchies, the remaining three modules are directed at children and include similar information as well as information about coping strategies. As parents work through the program, they are able to communicate through email messages, as well as periodic telephone contact. In their study, the program developers found significant reductions in anxiety symptoms, with 35% of children no longer meeting criteria for a specific phobia. The findings of this study suggest that when parents are provided with online training, they are able to effectively administer CBT to their children.

Recently, Vigerland and colleagues (2016) conducted a randomized control trial comparing this same program to a waitlist control condition. This time, participants were children with a range of anxiety disorders. The treatment was again described as a combined parent-child intervention with seven modules aimed at the parents and four modules aimed at the children. Significant reductions in anxiety symptoms were found at post-treatment, as 20% of children no longer met criteria for their principal diagnosis. By a three-month follow-up period, this number had increased to 50%. Parent-reported child
anxiety was significantly lower in the treatment group than in the waitlist group at post-treatment, though there were no significant differences in child-reported ratings. The researchers concluded that online parent-child interventions with therapist support can reduce clinician- and parent-rated anxiety symptoms.

There has been little research examining the added value of including a child component in parent-administered programs, or assessing the comparable efficacy of a program that is administered entirely via parents. Cobham, Filus, and Sanders (2017) discussed some of the benefits of directing treatment toward parents, rather than children. These researchers developed a parent-focused intervention designed to target parent factors, such as over-protection and excessive reassurance. They argued that parent-focused interventions tend to be briefer and thus less burdensome in terms of time and money. It follows that this may also be true of parent-administered interventions in which parents receive training in CBT, particularly if such interventions are delivered via the Internet. ICBT programs that involve a child component require a greater degree of therapist involvement (to guide the child along), whereas parents are able to work through online interventions more quickly and independently, and do not require as much time from therapists.

Cobham and colleagues (2017) also discussed the role of stigma in preventing parents from seeking in-person services for their children. They argued that parents tend to view their children as more vulnerable to stigma than themselves, and therefore, may perceive a parent-focused intervention as more acceptable than child-focused therapy. This same hypothesis may hold true for parent-administered ICBT; parents may feel more comfortable receiving training and then implementing therapeutic strategies with
their children in the privacy of their home, rather than having their children receive therapy directly. Ultimately, if an ICBT program that is entirely parent-administered is found to be as effective as a combined child-parent intervention, this may serve to greatly enhance treatment accessibility.

While the study by Vigerland et al. (2016) provides compelling support for the feasibility of parent-administered ICBT, this remains a relatively new area of research. As such, there have not been many studies examining the benefits and limitations of these types of programs and elucidating the most effective methods for content delivery. One area that represents a possible source of debate involves the necessity and degree of therapist support. As far as the current state of the literature is known, there have been no studies comparing parent-administered ICBT programs with therapist involvement to those with no therapist involvement. However, the research on ICBT for adults suggests that therapist support produces superior efficacy and lower dropout rates in comparison to unguided programs; it follows that this may also be the case for parent-administered programming. Furthermore, the limited body of research into parent-administered CBT delivered via workbooks, such as the studies by Thirlwall and colleagues (2013) and Rapee and colleagues (2006), suggests that therapist involvement is indeed beneficial.

Researchers at the University of Manitoba have developed and are currently testing an unguided, parent-administered ICBT program for child anxiety. This is the first program of its kind in Canada. There are currently no Canadian programs that are guided in nature. In fact, from a review of the literature, it would seem that out of the parent-administered programs that have been developed in different countries, none are entirely parent-administered (i.e., with no child component), therapist-guided, and
delivered entirely via the Internet. The literature on ICBT for adults (e.g., Newman et al., 2010) and the literature on other forms of parent-administered programming (e.g., Thirlwall et al., 2013; Vigerland et al., 2013) suggest that the development of such a therapist-guided, parent-administered ICBT program could represent a feasible treatment option.

Not only does therapist-guided, parent-administered ICBT have the potential to be as effective as face-to-face CBT but it may also have certain advantages over face-to-face CBT (Thirlwall et al., 2013). First, parent-administered ICBT involves minimal disruption to child activities. Because parents can administer therapy from home, children do not need to be pulled away from school or extra-curricular activities in order to meet with a therapist. Second, this type of treatment allows for clinical gains to continue after therapy has ceased, as parents are in a better position to remember and continue to implement strategies learned in therapy. Third, in parent-administered ICBT, therapists spend significantly less time with families; this means that they can reach a higher proportion of families at a time, thereby reducing waiting lists for services. Although therapist-guided, parent-administered ICBT represents a promising new way of increasing access to treatment, there is reason to believe that exposure therapy, which is a vital component of CBT, may represent a particular challenge when it comes to developing such a program. Therefore, in the design of this type of program, particular attention must be given to the development of an exposure therapy module that provides parents with sufficient guidance and support.
1.6 Exposure Therapy

Exposure therapy is a central feature in most CBT programs for anxiety (e.g., Khanna & Kendall, 2008; Spence et al., 2006). Throughout the course of exposure therapy, participants are systematically exposed to feared situations and stimuli. This involves the construction of an exposure hierarchy, which outlines increasingly difficult, anxiety-provoking activities for participants to complete, beginning with the least feared and moving up to the most feared (Chiu et al., 2013). For example, someone who fears enclosed places may start by sitting in a room with the door slightly ajar for a short time and then eventually work up to staying in a fully enclosed room for a longer period of time. The idea is that eventually participants will become desensitized to the situation or activity. This same principle holds true for exposure tasks for children. The therapist collaborates with the child to make sure that he or she understands the situation, ways to handle the situation, and the intended goal of the experience.

There are three main types of exposure: in vivo, imaginal, and virtual reality (Friedberg & McClure, 2015). In vivo exposure refers to directly encountering the feared situation or stimuli in real life. For example, someone with a fear of spiders would work toward seeing or touching a live spider. Imaginal exposure, on the other hand, involves coming into contact with the situation or stimuli through imagery. Using imaginal exposure, the participant would simply envision a spider. Finally, virtual reality exposure occurs when the feared stimuli is encountered over the computer. The participant may, for example, engage with a computer program that features a spider.

Some research suggests that not only is exposure therapy an important aspect of CBT, but that on its own, it may actually be comparably effective to CBT for certain
types of adult anxiety disorders. While combined cognitive and behavioural approaches have been identified as the most effective form of treatment for certain anxiety disorders, some research suggests that purely behavioural approaches (i.e., exposure therapy) are just as effective, particularly for disorders such as social phobia and OCD (Olatunji, Cisler, & Deacon, 2010). Furthermore, several meta-analyses have examined the efficacy of exposure therapy compared to other, purely cognitive approaches (for review, see Deacon & Abramowitz, 2004). Results suggest that exposure is both necessary and sufficient for the treatment of social phobia and OCD. While it is unknown if these findings hold true for other types of disorders, they do provide support for exposure therapy as not only a powerful component of CBT but perhaps the single most beneficial component for certain disorders.

Exposure therapy appears to be equally as vital in the treatment of anxiety disorders for children (MacPhee & Andrews, 2003; Wehry et al., 2015). One study compared one-session exposure treatment to education support treatment for children aged 7 to 16 with a diagnosis of specific phobia (Ollendick et al., 2009). Treatment consisted of graduated exposure tasks. Results indicated that one-session exposure treatment was superior to the education support treatment, as well as a control group. Approximately half of children in the exposure therapy condition were diagnosis-free at post-treatment and six-month follow-up. These recovery rates demonstrate that exposure therapy alone can result in significant clinical gains, and therefore, is particularly promising in the context of a larger CBT program.

Other studies have taken findings regarding exposure therapy and extended them to the development of Internet-delivered exposure programs, so as to enhance treatment
accessibility. For example, Kenwright, Liness, and Marks (2001) tested the feasibility of computer-guided exposure therapy versus therapist-guided therapy for adults with phobia or panic. Clients worked through six sessions of computer-guided self-help. Researchers compared changes from pre-treatment to post-treatment to those of clients who received the same treatment guided by a therapist. Clients in the computer-guided condition spent an average of only 63 minutes over four sessions with a clinician. This was in contrast to clients in the therapist-guided condition, who spent an average of 444 minutes with a therapist. At post-treatment, both groups had improved, but computer-guided clients had spent 86% less time with a clinician. It was concluded that computer-guided self-exposure therapy is a feasible and effective means of treatment.

In a similar study, clients with phobic or panic disorder were assigned to either exposure therapy guided by a computer system, exposure therapy guided by a therapist, or to computer-guided self-relaxation (Marks, Kenwright, McDonough, Whittaker, & Mataix-Cols, 2004). While dropout rates were higher in the exposure groups compared to the relaxation group, results indicated that both exposure groups led to greater improvements than the relaxation group, which was concluded to be ineffective. When comparing computer-guided exposure to therapist-guided exposure, the computer-guided condition featured higher dropout rates, but it also reduced clinician time per patient by 73% without losing efficacy.

Greist and colleagues (2002) created a computer-driven interactive voice response system for exposure in adults with OCD. They assigned participants to either a computer-guided condition or a therapist-guided condition. Results indicated that therapist-guided exposure was more effective than computer-guided exposure but that
both treatments were superior to relaxation techniques. However, computer-guided patients who completed at least one self-exposure homework session improved as much as therapist-instructed patients. This finding suggests that poor patient compliance with computer-based treatment may explain the weaker results for computer-guided exposure.

Taken together, the above-noted studies suggest that while computer-guided exposure therapy is as effective as therapist-guided exposure for adults, low patient compliance and high dropout rates present notable limitations. From these findings, it would seem that clients find exposure therapy challenging to do independently, and thus are less likely to comply and to carry on with treatment than when they have a therapist to adhere to or to help them address obstacles that arise. This suggests that in developing an online exposure therapy program, it is important to include some structured form of contact with a therapist in order to help clients address the associated challenges of exposure therapy. Therapist contact may be an effective means of providing clients with motivation, encouragement, and support. It is possible that this type of contact can be provided in the form of e-mail messages, as has been found effective in the research on ICBT for adults. The benefit of finding a way to provide therapist support over the Internet, rather than through face-to-face therapy, is that it reduces therapist time, which allows therapists to see more clients, thus reducing waitlists.

Literature in the area of online exposure therapy for children is somewhat limited. While many ICBT programs (e.g., Khanna & Kendall, 2008; Stallard et al., 2011) for child anxiety include an exposure therapy module, few studies have focused specifically on the module’s development. Research into parent-administered exposure therapy is
even scarcer; however, there is reason to believe that parents may find exposure therapy to be the most challenging aspect of guiding their children through therapy.

There is research suggesting that many therapists hold an extreme fear of implementing exposure therapy, and as a result, underutilize exposure therapy in practice (Meyer et al., 2014; Schare & Wyatt, 2013). It appears that some therapists believe that exposure may worsen anxiety symptoms, promote patient dropout, and possibly lead to psychosis and suicidality. If therapists themselves struggle to implement this type of therapy, then it follows that parents may find it even more challenging.

Ginsburg, Silervman, and Kurtines (1995) discussed challenges with traditional, therapist-delivered exposure therapy for children—challenges that may become even more salient in parent-administered exposure therapy. These researchers recommended “contingency management” training (i.e., training in the development of contingencies and skills to facilitate and encourage exposure therapy practice sessions) for parents whose children are receiving exposure therapy. However, they noted that parents’ own anxiety often impedes the process of contingency management, as parents who experience anxiety may be more likely to engage in avoidant behaviours themselves and therefore to encourage avoidance in their children. Additionally, parents with anxiety may experience cognitive distortions (e.g., catastrophizing) that in turn lead them to provide their children with negative or cautioning messages during exposure. It follows that if these issues impede exposure therapy in traditional treatment, then they may become even more challenging in parent-delivered exposure therapy, where parents have the sole responsibility of guiding and enforcing exposure.
Concerns about exposure therapy have been echoed in the limited body of research into parent-administered ICBT. In the development of their combined parent-child ICBT intervention, Holmes and colleagues (2009) noted that exposure therapy presented a notable challenge when it came to translating the CBT program into an online format. They believed that parents would struggle to create exposure hierarchies, and would also hesitate to enforce them. Exposure therapy could be especially challenging for parents when training is provided over the Internet, without a therapist to provide in-person support. It was for this reason that the developers chose to include a mid-treatment telephone call with a therapist as part of the program so that parents would be able to receive guidance from a therapist to help them develop and implement exposure hierarchies.

Despite the anticipated challenges, delivering exposure therapy in a parent-administered and online format may have a number of important benefits. If parents are able to learn exposure therapy strategies on their own time and then implement these strategies with their children at home, this will serve to increase accessibility and reduce wait time for therapy services. In addition, parent guidance may represent an important source of support for children. Exposure therapy is a particularly difficult component of treatment for children because it means that they must purposefully engage in the activities that are causing their anxiety. It is possible that with parents not only being involved in the therapy, but actually being the ones to guide the process, children may feel more supported and secure throughout. Providing training entirely over the Internet will serve to make the treatment even more accessible, as parents will not have to take time out of their schedules to speak to a therapist over the telephone.
When it comes to developing a parent-administered ICBT program, particular focus should be devoted to the design and evaluation of an exposure therapy module. Because exposure therapy is such an impactful component of treatment and yet is perceived as the most challenging to implement, it is important to devote time and attention to developing a module that provides parents with sufficient guidance and support. Usability testing is a promising means of ensuring that the module is acceptable and potentially efficacious prior to program dissemination.

1.7 Usability Testing

The aim of usability testing is to ensure, prior to a program’s dissemination, that the program is “tailored to the needs of the target population and is perceived as user-friendly, helpful, and acceptable” (Currie et al., 2010, p. 420). Usability testing is useful in determining whether a program will be effective and achieve its purpose. It is also an efficient means of evaluation because typically, only five to 10 participants are needed to identify major issues with a program’s usability (Nielsen, 2000; Nielson, 2002). According to Kushniruk (2002), usability testing can be used to assess the interface of a program, as well as users’ satisfaction with the program functions and the quality of information provided therein. It has been suggested that most usability studies examine three aspects of the participant–computer interaction: effectiveness, efficiency, and satisfaction (Hornbaek, 2006).

Currie and colleagues (2010) have provided an example of specific usability objectives in their evaluation of an online CBT program for postsecondary students. These researchers aimed to ensure that the program would be: user-friendly (i.e., easy to navigate); clear (i.e., text is understandable and logical); efficient (i.e., perceptions of the
length of each program module); and acceptable (i.e., likable to users). Through usability testing, participants noted a number of concerns with the program’s user-friendliness and suggested that the developers should add a drop-down navigation menu and add more colour and bolder headings. To increase efficiency, which is closely linked with user-friendliness, participants recommended that the developers eliminate repetitive information. To ensure that the module was clear, they recommended altering certain phrasing and also including more information about program elements (e.g., timeline for completion). Finally, participants requested more realistic examples and customizable elements (e.g., opportunity for participants to type in their own examples), which served to make the program more acceptable or appealing to them.

There is a growing body of literature on usability testing, and, in recent years, frameworks for testing have been established and refined (e.g., Kushniruk, 2002). Methods employed in usability studies may include online questionnaires, telephone interviews with participants, or in-depth video analysis of participants using the system under study. Kushniruk, Patel, Patel, and Cimino (2001) argued that while individual methods alone can provide valuable information, they are often limited if not used in conjunction with other methods. For example, online questionnaires rely on participants’ recall of their interaction with a program after a duration of time, which may constrain their ability to remember certain aspects of the program. Due to these types of limitations, multi-method approaches are often used to gain an in-depth understanding of the program in order to adequately address the usability objectives.

Usability studies frequently employ a “think aloud” approach, in which participants work through the program and provide verbal feedback as they do so.
(Kushniruk, 2002). This allows participants to describe their thought process as they read along and to communicate any areas of confusion. Typically, participants’ comments are audio- or video-recorded. In Currie and colleagues’ (2010) usability study, the researchers employed a multi-method approach, as they had participants “think aloud” and also complete semi-structured interviews. Other studies have used focus groups to gather verbal feedback. In Moore and colleagues’ (2013) evaluation of an online intervention for chronic pain patients, patients participated in either focus groups or individual feedback sessions. Other usability studies have incorporated both qualitative and quantitative methods. For example, Schueller, Washburn, and Price (2016) evaluated mental health providers’ interest in using web and mobile-based tools in their practices by combining the results of two studies, the first of which involved qualitative interviews and the second of which involved a larger scale survey.

It is also common for usability studies to employ an iterative process of evaluation. In iterative testing, the program is tested and the results of that test are then used to inform changes to the program’s design to increase its acceptability to users. For example, in the study by Currie and colleagues (2010), participants provided feedback over the course of three cycles. Following each cycle, feedback was analyzed and used to refine the intervention for the subsequent cycle. Moore and colleagues (2013) also used an iterative process, as feedback from their first cycle of testing (via focus groups) was used to inform the program that was developed for the second cycle of testing (via individual information sessions).

Usability studies typically focus on gathering feedback from the participants to whom the program or intervention is targeted (i.e., the clients or patients). However, as
explored by Schueller and colleagues (2016), it may also be important to gather feedback from the service providers themselves (i.e., the therapists). Seeking the perspectives of those who will be delivering the online program may facilitate the identification of potential problems with the program, and it may help ensure adoption of the program upon its dissemination.

In testing the usability of a therapist-guided, parent-administered exposure therapy module, it is vital to seek feedback from both therapists and parents. Many therapists are reluctant to implement exposure therapy in clinical practice. Involving them in the process of evaluating an exposure therapy module provides them with the opportunity to voice their concerns about module materials and delivery, including anticipated challenges when it comes to guiding parents through the implementation of exposure therapy. This allows for such concerns and challenges to be addressed before the module is distributed to client populations. Thus, usability testing will allow for the development of a module that is acceptable to both therapists and parents, that is clear and user-friendly, and that is a feasible means of treatment for child anxiety.

1.8 Purpose and Objectives of Present Study

In sum, while CBT has been identified as an effective form of treatment for child anxiety, many children do not have access to it. One way to increase access is through the use of ICBT. Moreover, parent-delivered programs are a particularly promising avenue for intervention as they reduce the need for extensive resources (e.g., therapist time), allow for access to a wider population (e.g., those in rural areas), and facilitate the maintenance and continuation of therapeutic gains beyond the duration of therapy. While there is evidence that parents can successfully deliver CBT programming to their
children with anxiety with therapist guidance, we know little about the success of parent-delivered CBT programming online. As some aspects of CBT, such as exposure therapy, may be particularly challenging for parents, it is important to get feedback on usability of ICBT programs before their implementation.

The purpose of the present study was to develop and test the usability of a therapist-guided, parent-administered, online exposure therapy module with (a) therapists who work with children with anxiety; and (b) parents of children with anxiety. The present study involved two iterative phases of usability testing. In Phase 1, therapists reviewed the module online and then provided feedback during focus groups. Based on therapists’ suggestions, the module was modified. In Phase 2, parents reviewed the revised module on-site and provided feedback during individual sessions. Based on parent feedback, the module was finalized. The usability objectives of this study were to develop a module that would be: (a) acceptable (i.e., appealing and likable to users); (b) clear (i.e., understandable and logical); (c) user-friendly (i.e., easy to navigate; efficient); and (d) feasible (i.e., perceived as workable and potentially beneficial in the treatment of child anxiety).

2.0 Module Development

The exposure therapy module was designed as part of a larger, parent-administered ICBT program, *The Child Anxiety Course for Parents*, and was developed in conjunction with six other modules. A team of researchers and research assistants, including the primary researcher, another psychology graduate student, and psychology professors L. Loutzenhisier and H. Hadjistavropoulos, designed each module. Content was largely based on the University of Manitoba’s unguided *Coaching for Confidence*
program, a CBT intervention for children aged 7 to 12 with anxiety. Developers of Coaching for Confidence provided access to their website and consented to the modification of materials.

The 7 to 12 age range was retained for The Child Anxiety Course for Parents; this is the typical range for most ICBT programs, as programming for both younger and older children would require modifications to account for differences in cognitive abilities and need for parent involvement (e.g., Hirshfeld-Becker et al., 2010; Spence et al., 2008).

The Coaching for Confidence program consists of 10 core units and five optional units. The primary researcher and the rest of the research team reviewed and modified each unit to reflect a shift toward therapist guidance; more specifically, based on a review of the literature, it was decided that the modified program would feature weekly secure e-mail messages with therapists.

Ultimately, the research team chose to reduce the number of modules from 10 to seven. It was found that the key components of CBT for child anxiety (i.e., psychoeducation; reward systems; reducing reassurance seeking and checking; exposure therapy; cognitive restructuring; problem solving; and relapse prevention; Khanna & Kendall, 2008) could be sufficiently captured in seven modules. Furthermore, it was anticipated that much of the information contained in the additional modules of the Coaching for Confidence program (e.g., “Bedtime Battles”; “Handling Intense Emotions”) could be provided via contact with the therapist if necessary.

Particular focus was afforded to the modification of the exposure therapy module. The module was structured based on a review of other usability studies that identified ways to enhance program user-friendliness. Consistent with past findings from usability
studies (e.g., Currie et al., 2010; McMillen & Pehrsson, 2000), the primary modification from the *Coaching for Confidence* program’s exposure therapy module involved a reduction of text. Much of the content was eliminated on the basis that, if needed, parents would be able to receive the information via e-mail communication with their therapist. The research team removed points that were deemed either repetitious of previous material or unnecessary to the overarching aims of the module. The team further condensed text by replacing paragraph format with bullet-point format. In order to make the modules more visually appealing, text size was increased, lengthy sections were divided into pages, and images were added.

The exposure therapy module began with an explanation of the rationale for exposure therapy (i.e., “the face-the-fear approach”) and then moved into step-by-step instructions for creating and implementing a “fear ladder.” This represented a change from the *Coaching for Confidence* program, which provided instructions for developing a “step-by-step plan” for facing the fear but did not discuss the plan in terms of a “ladder” or “hierarchy.” The decision to use the term “fear ladder” and to include a visual representation of the ladder was based on a review of other popular CBT programs for child anxiety (e.g., Khanna & Kendall, 2008).

Instructions for the face-the-fear approach included strategies for breaking a feared situation into easier steps, examples of how to discuss the step-by-step plan with the child, and directions for practicing the plan. The module also included information on the use of rewards to motivate the child to practice the fear ladder, as well as tips for helping the child engage in self-evaluation. At the end of the module, there was a brief summary of takeaway points, along with instructions for homework completion (i.e.,
designing and practicing a fear ladder).

Once the module was created, developers of the *Coaching for Confidence* program reviewed it. The developers consulted with the primary researcher and the rest of the research team and provided feedback about the new module materials and format. Suggested changes revolved around wording choice and, in some cases, shifting the order of information. The primary researcher and another psychology graduate student incorporated the suggestions into further development of the module. The revised module was sent back to the developers, who granted final approval of all materials. Upon authorization from the developers, Phase 1 of the present study was initiated; therapist participants were recruited to evaluate *The Child Anxiety Course for Parents*, with particular focus on the exposure therapy module.

### 3.0 Phase 1 Method

#### 3.1 Research Ethics

Phases 1 and 2 of this study were approved by the University of Regina and Regina Qu’Appelle Health Region Research Ethics Boards (Appendix A).

#### 3.2 Participants

Therapist participants were recruited from Regina Qu’Appelle Health Region Child and Youth Services. Child and Youth Services provides programs that address the mental health concerns of children and youth, including their families. Services are provided by a range of professionals, including psychiatrists, social workers, speech and language pathologists, nurses, and psychologists. A recruitment e-mail was sent to the director of Child and Youth Services. The director then recruited members of the Child and Youth team to participate in focus groups. Ten therapists expressed interest in
participating. Because research suggests that five to ten participants is the optimal number for a focus group (e.g., Krueger & Casey, 2015), two focus groups were held, with five participants in each group.

3.3 Procedure

Six days prior to the first focus group, therapist participants received a link through which to view the exposure therapy module. Focus groups were selected as the means of data collection based on other studies that have identified focus groups as useful in the development of ICBT programing (Moore et al., 2013; Williams, 2011); it was anticipated that focus groups would facilitate in-depth discussion and, potentially, the resolution of conflicting views. At the beginning of both focus groups, informed consent was gathered from each participant (Appendix B). During the focus groups, therapists provided feedback on the usability of the exposure therapy module. The focus groups were audio-recorded and transcribed by the primary researcher.

3.4 Measures

Semi-structured interview. A semi-structured interview guide was used to guide the focus groups (Appendix C). The interview began with an introductory question inquiring about participants’ background and experiences in working with children with anxiety. The remaining questions were designed to gather information about the study’s usability objectives: acceptability, clarity, user-friendliness, and feasibility.

To gather information about the acceptability of the module, participants were asked to provide general feedback on the module’s content. They were also asked questions pertaining to the acceptability of the proposed mode of therapist contact (i.e., weekly e-mail check-ins). Next, participants were asked specifically about the module’s
clarity, namely, whether it was easy to understand. Questions pertaining to user-friendliness focused on the general formatting and appearance of the module. To examine feasibility, participants were asked whether they believed *The Child Anxiety Course for Parents* could be effective in treating child anxiety, and whether they anticipated any barriers for parents in implementation. Finally, participants were asked about their own interest in guiding parents through this type of program.

### 3.5 Data Analysis

To meet the objectives of the present study, thematic analysis was conducted. As outlined by Braun and Clarke (2006), thematic analysis is “a method of identifying, analyzing, and reporting patterns (themes) within data” (p. 79). Themes capture important aspects of the data in relation to the research questions. In the present study, thematic analysis allowed for important themes to emerge regarding the acceptability, clarity, user-friendliness, and feasibility of the exposure therapy module.

In thematic analysis, there is no set definition of what constitutes a theme nor of how frequently an idea must emerge for it to be considered a theme; rather, the construction of themes is largely dependent on researcher judgement and interpretation. One of the benefits of thematic analysis is its flexibility and accessibility, as it does not require the detailed theoretical knowledge that is necessary for other qualitative approaches. In the present study, an inductive or “bottom-up” approach was taken, in that the analysis was data-driven and therefore not constrained by a pre-existing theoretical framework.

In accordance with the thematic analysis process outlined by Braun and Clarke (2006), the primary researcher reviewed the focus group transcripts several times to
obtain an overall sense of their meaning. All text relevant to the objectives of the study was highlighted. Individual units of text were manually sorted into four content areas based on the usability objectives of the study: (a) acceptability; (b) clarity; (c) user-friendliness; and (d) feasibility.

Once relevant text had been identified and sorted, the primary researcher and research supervisor began the coding process. A code refers to the most basic element or unit of text that represents a meaningful idea. The primary researcher and research supervisor engaged in consensus coding, as together they worked through individual units of text to generate codes. Following the initial coding process, the primary researcher and research supervisor reviewed the codes and organized them into meaningful groups (i.e., themes) by identifying repetitions of broader ideas, phrases, and examples.

According to Braun and Clarke (2006), “a pattern in data is rarely, if ever, going to be 100% complete and non-contradicted” (p. 95), but it is still important to take steps to ensure that the researcher’s interpretations and analytic claims are consistent with the data extracts. In the present study, this was done following a reliability procedure commonly employed in qualitative health research (e.g., Graneham & Lundman, 2004; Mayring, 2014; Purves & Dutton, 2013; Wakefield, McLeod, & Smith, 2003). Once initial themes had been identified, an undergraduate psychology student was recruited to act as a second coder. The primary researcher oriented the student to the coding scheme, and the student coded approximately one-third of all participant statements, which were randomly selected using an online random number generator. Once the student had
finished coding, the primary researcher and student examined each statement to assess whether they had assigned it the same theme.

It was discovered that there was a lack of consensus regarding the meaning and assignment of certain themes. The primary researcher and student discussed every statement for which there was disagreement, and concluded that much of the disagreement resulted from themes that were similar in nature and therefore overlapped with one another. As explained by Braun and Clarke (2006), it is important to consider how each theme fits into the broader overall “story” that the data is telling, and therefore, to ensure that there is not much overlap between themes. The primary researcher and student noted that there were several statements that could subjectively fit into two or three different themes, thereby suggesting that the themes did not sufficiently capture the broader story. Through collaborative discussion between the primary researcher and the student, themes were refined. The primary change involved collapsing the narrower themes, for which there had been significant overlap, into broader themes.

Following theme refinement, the primary researcher reviewed and recoded all statements. Another psychology undergraduate student was recruited to act as a third coder, once again coding a random sample of one-third of participant statements. This time, review of the recoded statements and discussion between the primary researcher and student revealed strong consensus regarding the meaning and assignment of themes (i.e., agreement was achieved on approximately 81% of statements). To further ensure reliability by controlling for chance agreement, calculation of Cohen’s kappa was undertaken. While there is no universal agreement on what constitutes an acceptable level of inter-rater reliability, there is research suggesting that kappa levels of .61 to .80
indicate substantial agreement, while values above .80 indicate almost perfect agreement
(Burla et al., 2008; Hallgren, 2012). In the present analysis, the inter-rater reliability was
found to be $\kappa = .75$, thereby providing substantial support for the researcher’s
interpretation and analytic claims. Throughout the process of recoding and refining
themes, the primary researcher and research supervisor engaged in continuous discussion
to gain insight into the conceptualization of the emerging themes, and ultimately, to
define and label final themes.

4.0 Phase 1 Results

4.1 Participant Characteristics

A total of 10 therapists participated in this study. Three of the therapist
participants were social workers and seven were psychologists. Their educational
backgrounds included Bachelors of Social Work, Masters of Social Work, Masters in
Educational Psychology, Masters in Clinical Psychology, and Doctors of Philosophy in
Clinical Psychology. All participants had experience working with children with anxiety
and their parents. On average, participants had nine years of clinical experience, with a
range from one to 19 years. One participant reported past experience acting as a therapist
in an ICBT program for adults.

4.2 Thematic Analysis

As noted above, four content areas were explored during the focus groups: (a)
acceptability; (b) clarity; (c) user-friendliness; and (c) feasibility. Themes emerged
within each content area.
Acceptability. Two themes emerged pertaining to the appeal and likeability of the module: (a) Provide parents with more encouragement; and (b) Therapist contact is perceived as valuable.

Provide parents with more encouragement. This theme encapsulates feedback relating to a perceived need for more support and validation within the module. Participants spoke of the challenging nature of exposure therapy, and suggested incorporating more recognition or acknowledgement of this difficulty within the module. They believed that acknowledging the level of difficulty would help parents feel more supported and encouraged, and offered the following insights:

• “One thing with Module 4 I was thinking about was having kind of more recognition of how difficult it is for parents to have children face their fears.”
• “They’re suffering and you like push them into the fire…so that was the one piece where I felt like parents might try this and be like, ‘I can’t do it.’”
• “And I guess the other thing more specifically to the fear exposure is the discomfort of parents around having to do that…there’s something difficult about having your child facing their fears and feeling uncomfortable, right?”

Therapist contact is perceived as valuable. This theme encapsulates feedback related to the proposed mode of therapist contact. In general, there was consensus that one weekly e-mail check-in would be an acceptable frequency and means of contact. One participant described the importance of some form of therapist support:

• “I’m really happy to know that they have that weekly check-in from a person to emphasize the points because I think it’s very easy to read that much and go,
‘Okay, I’m just going to take this piece, this page right here. I like this page and not this,’ and it’s like, ‘No, you have to take it all.’”

Another participant expressed satisfaction with the decision to limit therapist contact to only once per week, stating that if there was no limit, parents might be more likely to contact the therapist on a daily basis.

Although there seemed to be agreement that a weekly check-in would be suitable, there was some discussion of extending the contact to twice per week. During this discussion, one participant stated:

- “You’re doing emails like the parent’s supposed to take the lesson, try it out for the week, and get an email check-in? Because I wonder if there could be, just flipping that and having a parent read it and there being quick check on like, ‘How do I translate this onto my child,’ and then they can go forth and try and do that for a week?”

Another participant expanded upon this idea, suggesting that there be two check-ins: one at the beginning of the module to answer parents’ questions about the upcoming week and one at the end of the module to review how the week went.

Additionally, some participants had ideas for what to include within the weekly check-in (i.e., what type of support to provide). One participant suggested that in addition to simply checking in to see how the parent is doing, it might also be beneficial for the therapist to review the homework.

- “Working with clients that way, you can see sometimes there’s a misperception. They thought they were doing the homework correctly and they weren’t. Or I could just guide to maybe one step further...like, ‘You’ve got to this point but...
here’s how we could extend where you’re at.’ Or maybe like the hierarchy, I would not want that to be done incorrectly. If they haven’t broken it into small enough pieces…it would just give the opportunity for us to coach parents a little bit further.”

Overall, therapists relayed belief that it was important for parents to have some form of ongoing contact with a therapist, whether it be weekly or twice a week, and that the contact could serve as a useful way of providing parents with guidance on their homework.

Clarity. In relation to whether the module was understandable and logical, one theme emerged: *Provide parents with more detailed instruction*. This theme reflects participants’ perception of a need for more psychoeducation, explanation, and clarification in certain areas of the module. For example, participants suggested providing parents with more information about what to expect in terms of changes in their children’s anxiety levels while practicing the fear ladder. Two participants provided the following insights based on their own experiences teaching parents how to implement exposure therapy:

• “[Parents] can be like, ‘Oh no, he’s getting worse than better,’ and that education around, ‘No, that’s great; we want him to get pushed through that. Sometimes it does get worse before it gets better.’”

• “I know in [our group], we emphasize…the goal is not to eliminate anxiety; it’s to learn how to tolerate it. So really emphasizing that with parents because that’s really a misunderstanding for them. They think we’re just going to cure them.”
As participants described their experiences working with parents to deliver exposure therapy, they also made note of common pitfalls and suggested providing parents with education about the associated risks. Feedback included the following:

- “I would suggest making just even a one liner in there to explain how allowing your child to leave the situation when their anxiety has spiked is more detrimental, because that was what we struggled with the most. That’s where we had to jump in the most and do the most amount of social coaching was saying, ‘Stop. Their anxiety will come down. Trust us.’”

- “The other piece that I wanted to add is that there are some parents that would see this, say the fear ladder, and they would jump to the top. They’re impatient with the progress, the slow progress, and so a discussion about the risks of doing that.”

Participants also relayed a perceived need for more explanation and examples in some areas of the module. They voiced concern that parents might have difficulty understanding certain points, and made the following suggestions for clarification:

- “I don’t think I saw anywhere in there about letting parents know that sometimes these fear ladders need to be broken down into even smaller steps, and so an example of what that may look like.”

- “I find that not only children and adolescents struggle with the hierarchy, but sometimes adults do too, so I could see that too, that there might be a little bit of confusion or misunderstanding. I know when we have used it in other parenting programs, we would usually do the coaching, breaking it down, and sometimes needing to break it down even more, so that would be an area where I could see them needing a little bit more help or clarification.”
• “You’re talking about the fear ladder, and I thought, ‘ Couldn’t there be examples right beside that ladder about what each of these things could mean, so that while the parent is reading it, they can also visualize what the example might be?’ ”

**User-friendliness.** One theme emerged pertaining to the module’s ease of use:

*Enhancing the layout.* This theme encapsulates feedback about the module’s organization, aesthetics, and mode of delivery. Within this theme, participants relayed satisfaction with the style, color scheme, and graphics used throughout the module. In regard to the organization, however, participants emphasized a need for the exposure therapy module to refer to skills learned in other modules of the program, stating that it was important to ensure continuity. For example, they believed that the exposure therapy module should include reference to the use of rewards, which was discussed in an earlier module. One participant stressed the importance of repetition, stating that rewards were something that should be referenced repeatedly throughout the entire program.

Participants also expressed concern that the exposure therapy module did not include information about cognitive restructuring. They suggested changing the order of the modules so that the cognitive restructuring module would come before the exposure therapy module, and therefore the exposure therapy module could refer back to it. The rationale for this change was summarized with the following comments:

• “If you’re in an individual therapy session, you’re not going to start exposure before you talk about thoughts. That’s going to be one of the first things you’re going to start addressing, I think.”

• “I would prefer that Lesson 5 be before exposure because that was how we got the kids to endure the exposure.”
Finally, participants had suggestions for making the module’s mode of delivery smoother (i.e., more accessible). One recommendation was to include a “PDF fillable” version of the homework sheet so that parents could complete the worksheet on the computer if desired, as not all parents have access to a printer. Another recommendation was simply to ensure that the module would be cell phone compatible to allow for more convenient access, and also to reach parents who do not own a computer.

**Feasibility.** Three themes emerged relating to the potential usefulness and workability of the module: (a) concerns about timeframe; (b) barriers to implementation; and (c) interest in program delivery.

**Concerns about timeframe.** This theme refers to participants’ perceptions surrounding the achievability of module completion. More specifically, participants discussed whether parents would be able to complete the module in the allotted time of two weeks. They provided the following insights:

- “Our group…all of the feedback said that they wished they had more than two weeks of exposure therapy. So I think at least two weeks of exposure therapy. That is the most important part.”

- “And I think because exposure therapy is when they really get into the meat and potatoes of the work, if they just say two weeks of exposure, they might expect that in two weeks their kids will be doing better, whereas if you give it three or four weeks, then it shows, ‘No, it takes some time.’”

Conversely, other participants raised the possibility that parents would drop out if the module extended beyond the two weeks. Some participants suggested that if the two-week timeframe were retained, simply reminding parents that exposure therapy was an
ongoing process and that they should continue practicing beyond the two-week duration could combat the identified concerns:

- “Maybe you could do a quick review in modules, do a quick review of, ‘How’s your exposure going? Are there things you need to tweak?’ Or could it be the communication between the therapist and the parent? Focus on that as well, so that even though there’s ongoing psychoeducation about the themes, there’s a recognition that the parent might still be working on the exposure.”

**Barriers to implementation.** This theme includes feedback about potential obstacles parents may encounter in delivering the exposure therapy module to their children. Participants indicated that it could be difficult for parents to brainstorm ways to approach their children’s feared situations. One participant divulged:

- “You can’t possibly give every example in the world, but if a parent has a child who’s scared of something, it might be difficult to come up with, ‘How do I do this ladder? Where do we start?’ I think it’s good, but it’s overwhelming, too.”

Other participants identified parents’ own anxiety and other emotions as potential barriers. They noted that many parents of children with anxiety experience anxiety themselves, and that this could make it difficult to follow through with the implementation of exposure therapy. This concern was reflected in the following comments:

- “If you’re doing your fear ladder and you’re talking about the rewards and then before you actually start doing something, you need to get your own anxiety in check. Because if you have an anxious parent that goes, ‘We’re going to do this’
and your anxiety is increasing, you’re actually going to heighten the situation before you even get started.”

• “I think the parents’ anxiety is definitely a barrier because if they see their child having a meltdown in their first exposure and that’s just too much for them and they don’t have the skill set to endure that.”

• “That self-regulation for parents is a big piece of this, right? And so when your child acts out in ways that you think, ‘You’re way too old to be acting this way,’ like having a meltdown as you’re going to school, it’s hard for parents, like they panic themselves and they’re embarrassed and they’re ashamed because they should know better. So there’s a lot of emotional experience that parents have. But it will be very interesting because they might do really well.”

Finally, participants indicated that the reading level of the module may be too high for some parents. One participant described the module as very “cerebral.” Another participant stated:

• “I just thought that the level was maybe a little bit higher than a lot of the clients we see. With the language… I just wondered if a typical parent that we see would really get it.”

While discussing reading level as a barrier, participants noted that highly educated parents may have an easier time implementing the module than others. They also made the following predictions:

• “I mean there are parents that I see, all you needed was just a little tiny bit of direction and they could just take it and run. I think those parents would do very well. Other parents, like one family I’m seeing, I don’t think they could’ve. They
were so stuck that, and their child’s reaction was so strong that they needed support in getting through those pieces, so I think it’s going to depend.”

• “And I could see that being those high functioning parents who are doing lots of reading and things on their own that would find something like this appealing because they don’t necessarily, they’re busy and they’re competent, so they don’t necessarily want those one-on-one.”

• “I think for high functioning parents, it will work. High functioning kind of independent who are able to follow through.”

**Interest in delivery.** The last theme involves participants’ own interest in and willingness to facilitate parent-administered exposure therapy. When asked if they would be open to guiding parents through *The Child Anxiety Course for Parents*, the majority of participants replied, “yes.” Some noted that their workplace would need to adopt or modify certain policies (i.e., agency standards) and procedures (e.g., record keeping) to make this possible but affirmed their own interest in providing such a service. In affirming their interest in delivering the program, several participants indicated that they viewed the program as a feasible option for reaching more families. This was reflected in the following remark:

• “We always talk about ways, how do we keep waitlists low? How do we get the services required? And I think this is just another way for clients that are already connected with us.”

**5.0 Module Modification**

Therapist participants provided a number of recommendations to enhance the module’s acceptability, clarity, user-friendliness, and feasibility. Before acting on these
suggestions, the primary researcher met with the rest of the research team to discuss their merits and workability. In deciding which suggestions to incorporate into further development of the module, the research team strove to strike a balance between including sufficient guidance for parents and also ensuring that the module did not become too long. If a suggestion was not feasible within the budgetary parameters of the project, it was excluded. Even so, the research team deemed the vast majority of suggestions feasible and incorporated them into further development of the module.

To provide parents with a better understanding of how to implement exposure therapy, more explanation and examples were added to the module. To provide parents with more encouragement, statements such as the following were added throughout the module:

We know it can be very difficult for children to face the things they are afraid of. However, we have heard from many parents who have tried this approach that it pays off to stick with it.

Steps were also taken to enhance continuity across modules. Parents were provided with reminders on how to help their children use relaxation and cognitive restructuring techniques. Information was also added to remind parents that exposure therapy is an ongoing process and that it may take time to see progress. The only recommendation for the exposure therapy module that was not taken was to add a video example demonstrating the implementation of exposure therapy; this was not possible within the budgetary and time parameters of the study. However, it was believed that the added text examples would help compensate for the absence of a video example. Once all modifications were complete, Phase 2 of the study was initiated as parent participants were recruited to review the revised version of *The Child Anxiety Course for Parents*. 
6.0 Phase 2 Method

6.1 Participants

Parent participants were recruited through the University of Regina’s Listserv address book. A recruitment e-mail was sent out to all University of Regina employees (Appendix D). Employees who were interested in participating e-mailed the primary researcher, who confirmed their eligibility and arranged dates and times for sessions. To be included in this study, parents had to have a child between the ages of 7 and 12 who experienced anxiety. For their time, participants received $100 compensation ($50 per session).

Initially, five participants were recruited. Participants were selected on a first-come, first-serve basis. The decision to recruit only five participants was based on multiple studies that found five participants to be a sufficient number for assessing problems with the usability of the program (McMillen & Pehrsson, 2009; Nielsen, 2000; Nielsen, 2001). Following the collection of data from all five participants, the primary researcher and research supervisor reviewed the data to assess sample saturation. In qualitative research, saturation refers to the point at which the collection of new data does not shed any further light on the issue under investigation (Glaser & Strauss, 1967). Through collaborative discussion between the primary researcher and the research supervisor, it was determined that there was substantial overlap among participants’ feedback; indeed, by the fifth participant, there was little new information being gleaned. Therefore, no further feedback was sought at this time.
6.2 Procedure

Parent data was collected via individual feedback sessions. It was anticipated that individual sessions would allow for parents to read through the program at their own pace, and would facilitate the collection of parents’ initial impressions of the program, as they would be able to voice a thought as soon as it came to mind. Each parent’s participation was broken into two individual sessions, both of which were held on the University of Regina campus. Sessions lasted approximately one to two hours.

At the beginning of the first session, informed consent was gathered (Appendix E) and participants received access to a computer, on which there was a link to a survey through Qualtrics.com. Participants completed a brief demographic questionnaire and then reviewed the first four modules of the program. During the second session, participants reviewed the remaining three modules, including the exposure therapy module. All modules were viewed on Qualtrics.com, as the website designed specifically for dissemination of the program was under construction and not available for preview. The module presentation on Qualtrics was nevertheless the same presentation that would have appeared on the intended platform.

As they read through the exposure therapy module, participants were asked to “think aloud.” The primary researcher was present during each session. All sessions were audio-recorded. At the end of the module, participants completed a questionnaire designed to measure its usability. At the end of the second session, once they had reviewed the entire program, participants completed measures designed to assess their perceptions of the program’s usability and credibility, and their expectations regarding the potential success of the program in treating their children’s anxiety symptoms.
6.3 Measures

**Demographics.** Participants completed a demographic profile (Appendix F) designed to gather basic demographic information, including their age, gender, education level, and the size of the town or city in which they resided. They were also asked how many children they had and how many of their children experienced anxiety. Finally, participants were asked to provide information about their children, including their children’s age, gender, level of anxiety (ranging from mild to severe on a 7-point Likert scale), and the extent to which (ranging from not at all to very much on a 5-point Likert scale) anxiety interfered with their functioning across a range of situations (i.e., at home, at school, and in other activities).

**Usability.** To gather information pertaining to the four usability objectives (i.e., acceptability, clarity, user-friendliness, and feasibility), five measures were used: (a) Exposure Therapy Module Satisfaction Questionnaire; (b) Post-Study System Usability Questionnaire; (c) Credibility/Expectancy Questionnaire; (d) open-ended questions; and (e) the “think aloud” approach.

**Exposure Therapy Module Satisfaction Questionnaire (ETMSQ).** The 19-item ETMSQ (Appendix G) was designed by the primary researcher to measure the usability of the exposure therapy module. The structure of the questionnaire was based on Lewis’ (1995) usability measure. Participants were asked to rate their level of agreement with statements on a 7-point Likert scale ranging from 1 (strongly agree) to 7 (strongly disagree). Items were designed to reflect the present study’s usability objectives: acceptability (e.g., “The examples in this lesson were helpful”); clarity (e.g., “The information in this lesson was clear”); user-friendliness (e.g., “I liked the layout of this
lesson”); and feasibility (e.g., “I would feel comfortable implementing this lesson with my child”). Two items were taken verbatim from Lewis’ measure (i.e., “The organization of information in this lesson was clear”; “Overall, I am satisfied with this lesson”). Four items were based on Lewis’ questions about program interface but were broken down into more specific aspects of interface (e.g., “The visual appearance of this lesson was pleasant; “The amount of information on each page was acceptable”). The remaining items were tailored to the specific content and feasibility of the module, and did not closely reflect items within Lewis’ measure.

Descriptive analyses were employed on data from the ETMSQ to generate mean ratings for each individual item. An overall score was also generated by taking the mean of all 19 items. Certain items (e.g., “This lesson did not teach me any new information”) were reversed by subtracting scores from 8. Possible total scores ranged from 1 to 7, with lower scores indicating stronger levels of agreement.

Post-Study System Usability Questionnaire (PSSUQ; Lewis, 1995). The PSSUQ is a standardized 19-item questionnaire designed to assess user satisfaction with computer systems (Appendix H). Participants were asked to rate their level of agreement with statements such as “Overall, I am satisfied with how easy it is to use the system” and “The organization of information on the system was clear.” Each item was rated on a 7-point Likert scale ranging from 1 (strongly agree) to 7 (strongly disagree). There was also a not applicable option that participants could select if the question was not relevant, as was the case with items pertaining to system quality, since the program was not available for viewing on its intended system. The PSSUQ has demonstrated strong
psychometric properties, including sufficient reliability and construct validity (Lewis, 2002).

Descriptive analyses were employed on data from the PSSUQ to generate mean usability ratings for individual items. Although all 19 items of the PSSUQ were administered, due to the constraints of the module not being available for preview on its intended system, any questions pertaining to the system quality were not applicable. As such, the system quality subscale was dropped from the present study. Total scores were generated for the remaining two subscales: information quality and interface quality. A total score was created for the information quality subscale by taking the mean of items 11 through 15, and a total score was generated for the interface quality subscale by taking the mean of items 16 through 18 (see Appendix H). Possible total scores ranged from 1 to 7, with lower scores indicating stronger levels of agreement.

*Credibility/Expectancy Questionnaire (CEQ; Devilly & Borkovec, 2000).* Participants’ perceptions of the credibility of *The Child Anxiety Course for Parents* and their treatment expectations were measured using the CEQ (Appendix I). The CEQ is a standardized questionnaire consisting of six items that reflect two different factors: cognitively based credibility and relatively more affectively based expectancy. Credibility refers to how believable and logical the treatment seems, while expectancy refers to improvements that clients believe will be achieved by the treatment. The CEQ has demonstrated strong psychometric properties, including high internal consistency and good test-retest reliability (Devilly & Borkovec, 2000).

For the present study, the wording of the CEQ was modified slightly to assess parents’ beliefs about their children’s treatment and symptoms (e.g., “your child’s
symptoms” rather than “your symptoms”). In keeping with the original CEQ, participants were presented with two sets of questions. The first set consisted of three questions that reflected treatment credibility (e.g., “At this point, how logical does the therapy offered seem?”; “At this point, how successful do you think this treatment will be in reducing your child’s anxiety symptoms?”). Responses were rated on a 9-point Likert scale ranging from 1 (not at all) to 9 (very much). The second set consisted of three questions that reflected treatment expectancy (e.g., “At this point, how much do you really feel that therapy will help to reduce your trauma symptoms?”; “By the end of the therapy period, how much improvement in your symptoms do you really feel will occur?”). One of the expectancy questions used the same 9-point Likert scale as the credibility questions, while the other two questions used an 11-point Likert scale designed to measure predicted improvement in symptoms, ranging from 0% (not at all) to 100% (very much).

The two items that used an 11-point response scale (ranging from 0% to 100%) were recoded to correspond to the 9-point scale used for the other items. This was done following the same procedure used by Nock and colleagues (2007). Values from 40-60% were collapsed into one value (i.e., a score of 5). Total scores were generated for the credibility subscale, the expectancy subscale, and the overall scale. Possible scores ranged from 1 to 9, with higher values indicating higher credibility and more positive treatment expectations.

“Think aloud” approach. Participants were instructed to provide verbal feedback as they worked through the exposure therapy module. They were advised that this feedback could pertain to the content, structure, and feasibility of the module. Their
comments were audio-recorded and transcribed by the primary researcher and two undergraduate psychology volunteers. Feedback was analyzed using a thematic analysis approach.

**Open-ended questions.** A set of open-ended questions was developed by the primary researcher to gather additional usability information that may have been missed in participants’ verbal comments (Appendix J). Following the review of the exposure therapy module, participants received one broad question (i.e., “Do you have any additional comments about the lesson?”) and space for typing a response. Once participants had reviewed all seven modules, they received four qualitative questions about the program as a whole (e.g., “What would be some challenges in implementing the program with your child?”; “What would make it easier to implement the program with your child?”). Typed responses were analyzed using a thematic analysis approach.

### 6.4 Data Analyses

**Thematic analysis.** All qualitative data, including verbal feedback and typed responses to questions, were analyzed using the same thematic analysis approach as employed in Phase 1 (Braun & Clarke, 2006). The primary researcher reviewed transcripts several times and highlighted all text relevant to the objectives of the study. Once again, individual units of text were sorted into the four usability objectives: (a) acceptability; (b) clarity; (c) user-friendliness; and (d) feasibility. Together, the primary researcher and research supervisor engaged in consensus coding and organized codes into broader themes.

A psychology undergraduate student then reviewed and coded a random selection of one-third of the data. As was the case in Phase 1, there was disagreement regarding
the meaning of certain themes, which resulted in a lack of consensus on several statements. As such, the primary researcher and student reviewed all statements for which there was disagreement, and, based on collaborative discussion, refined the themes. The majority of theme refinement revolved around collapsing narrower themes into broader or more encompassing ones. The research supervisor assisted in labelling and redefining the themes. The primary researcher reviewed all data once again and recoded each statement based on the new themes. Another psychology undergraduate student was recruited to review and recode a random selection of one-third of the data (generated using an online random number generator). Review of the recoded data and discussion between the primary researcher and student revealed strong consensus (i.e., agreement on 92% of statements) regarding the meaning and assignment of themes. Calculation of Cohen’s kappa was once again undertaken to control for chance agreement. The inter-rater reliability was found to be $\kappa = .88$, indicating excellent agreement (Burla et al., 2008; Hallgren, 2012).

7.0 Phase 2 Results

7.1 Descriptive Analyses

Participant characteristics. A total of five parents participated in this study. Four of the participants were mothers and one was a father. Participants ranged in age from 34 to 41 years ($M = 39.2; SD = 3.35$). Overall, participants were well educated; one held a graduate degree, three held undergraduate degrees, and one had completed college, technical, or vocational school. All participants were employed full-time and all were married or in common law relationships. Additionally, all participants were Caucasian.
Two participants lived in a town with a population of 10,000 people or less and three participants lived in a city with a population of 200,000 people or more.

Two participants had two children, two participants had three children, and one participant had five children. Three participants had only one child who experienced anxiety, and two participants had two children who experienced anxiety (but were outside of the program’s targeted age range). Of the children who experienced anxiety and were within the program’s age range, the average age was 9 years (SD = 1.64), with a range of 8 to 12 years old. Two of the children were male and three were female.

On average, participants reported that their children experienced moderate to severe levels of anxiety ($M = 5$; $SD = .71$). In terms of the degree to which anxiety interfered with their children’s functioning, participants reported that their children experienced moderate to high levels of interference at home ($M = 3.6$; $SD = .89$), at school ($M = 3.8$; $SD = 1.1$), and in other activities ($M = 4$; $SD = 0$).

**Module satisfaction.** The total score for the exposure therapy module questionnaire ($M = 1.76$; $SD = .57$) suggests that participants were predominantly satisfied with the usability of the module. Participants either “agreed” or “strongly agreed” with the majority of statements. Mean satisfaction ratings for individual items ranged from 1.2 (e.g., “This lesson provided me with a good understanding of how to break a fear into smaller steps”; “The length of this lesson was suitable”) to 3.4 (“It would be difficult to complete the homework for this lesson”).

**Usability.** Total mean scores on the information quality and interface quality subscales of the PSSUQ were 1.52 ($SD = .36$) and 1.6 ($SD = .43$), indicating highly favourable impressions of the program’s usability.
**Credibility and expectancy.** Total scores on the CEQ ($M = 6.8; SD = .57$) reflected generally favourable ratings. The total mean score for the credibility subscale was $7.93$ ($SD = .55$). The total mean score for the expectancy subscale was $5.67$ ($SD = 1.05$).

### 7.2 Thematic Analysis

As noted above, the four areas of usability assessed during the sessions with parents were: (a) acceptability; (b) clarity; (c) user-friendliness; and (c) feasibility. Themes emerged within each area.

**Acceptability.** Within feedback pertaining to the module’s appeal and likability, two themes emerged: (a) Parents connect with the material; and (b) Therapist support is perceived as valuable.

**Parents connect with the material.** This theme encapsulates feedback in which participants indicated that the module resonated with them. Many participants articulated that the content of the module was highly relevant to their own children. For example, one participant remarked:

- “I already like this lesson. Fear is a big factor in my child and avoidance is a big one so just even confirmation that the avoidance is actually making it worse is good.”

Other comments within this theme reflected a more general sense of satisfaction with the module. On several occasions, participants stated that they liked the module and found the materials helpful. At other times, participants expressed interest in the subject matter, sometimes stating that they had learned new information or had been presented with a new way of thinking about their children’s anxiety.
Participants also commented favourably on specific sections and strategies within the exposure therapy module, such as:

- “The line about ‘It’s helpful to incorporate practice sessions as part of your child’s regular routine’ is really helpful. I wouldn’t have thought of that.”
- “On slide 21—the story ideas—I really like the suggestions—the children’s stories, the Berenstain Bears, and the Scaredy Squirrels, and writing a story with your child. I think these are just great ideas, and the YouTube videos.”
- “I like the fear ladder that kids can understand, and parents. Oh, and there’s a thermometer. That’s good, too.”

Finally, participants spoke positively of the examples included within the module. Some participants stated that they found the examples helpful and would like to see even more examples included. Other participants spoke of an appreciation for the realistic nature of the examples:

- “They’re real life examples. I don’t have issues with a babysitter but lots of parents probably do, so they can take this exact example and use it. It’s good to have real life examples.”

**Therapist support is perceived as valuable.** This theme includes statements that reflect a desire for guidance or encouragement. The primary piece of feedback that emerged within this theme involved appreciation that the module would include support from a therapist. Participants asserted that having a therapist with whom to communicate would be helpful in case they had questions or wanted feedback as they worked through the module.
There were a couple of areas for which participants noted that they would appreciate more guidance. However, as reflected in the following statement, participants believed that such guidance could simply come from the therapist contact:

- “My only question that would come out of this lesson, and maybe this would be a question that I would ask my therapist, but with the ladder and doing the different steps, what do you do in the situation of—and it kind of talked about this—like when you take your child to the dentist or for needles? I don’t really know how you would practice something like that.”

In addition to therapist support, participants also divulged that they appreciated sections of the module that included recognition of the level of difficulty involved in the tasks. For example, one participant asserted:

- “I think in slide 29, I appreciate as a parent just acknowledging the difficulty a parent watching a child in the situation and the fact that you can’t change it.”

**Clarity.** In relation to the module’s clarity, one theme emerged: *The material is easy to understand.* For the most part, participants indicated that the materials were clear and logical. One participant expressed appreciation that the language did not include complex medical terms. Other participants echoed this view, stating that the module was an “easy read.” There were very few areas for which participants requested further clarification. There was, however, one participant who relayed confusion resulting from the example of the homework worksheet. She asserted that the visual representation of the fear ladder had misled her:

- “The worksheet didn’t help me much, but I understood the concept. It’s just that when I got to the visual, I had lost what was in my mind how to do it.”
In spite of rare instances of confusion, participants communicated general satisfaction with the exposure therapy module’s coherence and intelligibility.

**User-friendliness.** Two themes emerged in relation to the module’s ease of use: (a) The layout is appealing; and (b) The amount of information is suitable.

**The layout is appealing.** This theme refers to participants’ feedback regarding the program’s aesthetics and organization (e.g., graphics; colour scheme). As participants read through the program, many of them commented favourably on its appearance:

- “I notice that throughout the program, wherever there is sort of like a conversation, it shows it sort of like a text message. I like that. Just because so many people are used to seeing that so it just automatically makes sense.”
- “I like how on some slides, there is pictures—just that it’s not all text….If the whole thing was text on every slide, it would be just a bit much.”
- “All the spacing seemed good and…even the way the pictures always went with what was happening and all that stuff.”
- “You don’t get too much in your face at one time. The pictures were appropriate and even the font was good.”

As they read through the module, some participants indicated that whenever they had a question about the content, it was immediately answered on the following page (i.e., it was intuitive). Furthermore, many participants expressed an appreciation for the consistency of the way in which information was presented (i.e., that the same structure was followed for each module). In discussing the structure of the module, participants stated:
• “That was a good module. I like that the structure was predictable, so I know there will be a summary of what we talked about and then talk about the homework or what the homework should feel like or look like…so I like the consistency.”

• “On slide 11, talks about the six main steps to face-the-fear approach and what I’ve liked so far with this program is now I know it’s going to go into great detail with each of the steps…That’s one thing I’ve noticed about the program is just that it nicely lays out all of the steps.”

• “I think I like how it’s organized and it’s very step-by-step and kind of works through the ladder and the thermometer and kind of picking different tasks in the ladder and how to get through an anxious time. I think it’s laid out well.”

Also related to the layout of the program, some participants mentioned that it would be helpful if they could more easily refer back to different parts of the program. They made the following inquiries:

• “I’m just wondering like when you give this to people, like it’s being implemented, will they have access to all the previous lessons? Because it says, ‘She can tackle these thoughts with the realistic thinking steps from Lesson 4,’ and I don’t remember that.”

• “A question that popped into my head…would this be available to people on an ongoing basis that they can refer back to at any time? I could see myself if I go through this once, it’s great, but if I want to refer back…there won’t be a time limit on accessing the program?”
In addition to wanting to be able to go back to other modules, participants communicated a desire for easier reference back to previous pages within the module. One participant remarked:

- “It was easy to navigate. One thing that might be helpful is, you know on PowerPoint, you have on the slide—it shows all the pages. Like when you’re going through it and over here you can see sort of an index. But just have the ability to be like, ‘Oh, what did it say on page seven?’”

Finally, participants discussed the value of having previously learned strategies brought up in the exposure therapy module (i.e., continuity across modules). They made several favorable remarks, including:

- “Structurally, I like the progression of the module. It’s very clear which steps you’re on and I like how it ties to concepts introduced earlier. And generally, I like how I remember from the last grouping as well, how it connects the pieces, starting to connect some of the tools or some of the concepts together. It’s methodical.”

- “So what I’m finding in this lesson is it’s starting to build on what was talked about in previous lessons. It’s good to see that what we did in previous lessons aren’t just like, ‘Okay, no, we’re done with that.’ It keeps kind of building.”

- “This was a really good module. And again, it tied to the progressive muscle relaxation, which was one of the first couple modules we did. I really like that structure.”

**The amount of information is suitable.** This theme encapsulates feedback regarding the amount of information and the number of pages contained in the module.
For the most part, participants indicated that the amount was manageable and efficient. Feedback included the following:

- “I was anticipating that it would be a lot more information and a lot more in depth, but I think for me it’s the right length.”
- “Very thorough without being too much.”
- “I like that the lessons were short because most parents are so busy…If it took me two hours to go through, I wouldn’t do it.”

**Feasibility.** Within the content area pertaining to the perceived workability and utility of the exposure therapy module, three themes emerged: (a) time commitment as a barrier to implementation; (b) motivation as a barrier to implementation; and (c) desire to implement.

*Time commitment as a barrier to implementation.* Within this theme, participants discussed the feasibility of finding time to implement the learned strategies with their children, relaying concern that it would be difficult to take time out of their schedules to do so. When asked to identify challenges in implementing the module, they made the following comments:

- “Time and commitment and routine and stuff would be difficult in our house. With other family attentions and stuff, it would be difficult.”
- “My main comment with the homework, knowing my life with an anxious child, I don’t have time for it. But then you know that the end result is worth it, but just finding that time and being able to do it.”
• “As a parent of a child with anxiety, I find most of my time is eaten up with the anxiety issues and I am exhausted. So finding the time and making the effort—while undoubtedly valuable in the end—might be difficult.”

In light of these anticipated challenges, participants made recommendations:

• “Dedicate some time every day or a few times a week to the program and make out a schedule that we both agree on.”

• “We would have to dedicate some time and maybe even on the calendar, say, ‘Okay, on these days is when we are going to really work on it and from 4:00 to 4:30. I think we would have to set out a schedule for the next how many weeks or however long it takes…maybe write out a contract.”

Also within the theme of time commitment as a barrier, participants spoke of the timeframe for completion of the module. One participant expressed satisfaction that two weeks would be allotted. However, other participants relayed concern that two weeks would not be long enough:

• “On the survey at the end, you ask if it would be difficult to complete the homework for this lesson and my only concern, based on my child, is that two weeks might not be long enough to overcome any of her fears.”

To help address such concerns, one participant suggested including “flexibility” in the end date of the program, noting that “some modules could take longer to feel confident in than others.”

Lack of motivation as a barrier to implementation. This theme encapsulates comments relating to the ways in which motivation difficulties may serve as obstacles in completing the module. Within this theme, participants discussed both their own
motivation and their children’s motivation. When it came to their own motivation challenges, participants made the following comments:

- “Being an online tool without an appointment to go to, to physically be at or connect with someone…it would be more difficult to structure I guess, and especially if you’re in a moment, say you start this program, that you’re in maybe a moment in time when the anxiety isn’t as marked as other times where it would be more top of mind then…so that would be a challenge, I guess, right?”
- “I guess the only challenge would be participation, really. It’s not hard. Lack of effort—the usual MOs.”

Concerns about children’s motivation were summarized with the following comment:

- “The challenge would probably be to keep your child motivated through the whole program. I know for my child, she probably would really like it at the beginning as it’s a new thing we are going to try. Then she would fizzle out.”

One participant noted that therapist support could be an important means of addressing motivation difficulties. She offered the following insight:

- “I suppose if you started to see success right away then that would maybe be motivating and…if you’re not seeing much success and probably both the parent and child aren’t motivated to keep going with it then maybe that’s when you contact the therapist and look at, ‘What do we do to help them keep going?’”

Other participants similarly emphasized the pivotal role therapist support could play in keeping parents on track throughout the program and echoed suggestions to set check-in appointment times with the therapist.
**Desire to implement.** This theme refers to participants’ feedback regarding their ability to deliver the module to their children and their interest in doing so. On various occasions, participants indicated that they would be comfortable implementing the suggested strategies with their children. One participant spoke of a belief that the homework was not only manageable, but that it would be easy to implement:

- “And then the homework too is—like I think it would be effective but it’s also fairly easy to do. Again because if it’s going to be too much of a burden, even though it could be helpful, if it’s a burden the parents aren’t going to do it and the kids definitely aren’t going to do it. I think overall it’s an easy program but easy in a good way.”

One piece of feedback that emerged frequently and consistently across all participants was an interest in participating in the program upon its dissemination. They provided the following insights:

- “If you guys get it up and running, actually tell me because I actually really want to do it. Yeah, I actually think it’s really useful. I think it would actually work.”

- “I think it’s a great program. I could definitely see myself doing it. It would be useful for myself and my daughter.”

- “I hope you can get it up and running and I can use it too. Like I think it’s a really good idea.”

- “That was fun. I feel like I learned a lot. If you get it up and running, you should tell me because I would totally want to do it, actually.”
• “I think by then, I’ll probably be out of the window—[my child] turns 13—but I’d still be interested in having access to the materials because I think it could still be useful.”

In discussing their interest in participating in the program, participants highlighted some reasons that they preferred an online, parent-administered treatment option to other services. One participant disclosed that she preferred this program to an in-person group therapy program she had tried with her child:

• “We ended up stopping [the group therapy] halfway through because she started picking up the behaviours of the other kids. So that’s why this would be really good because there’s not a bunch of other kids around. Like they’re teaching us ways to deal with it without having a bunch of other kids with behaviours that she’s bringing home.”

Another participant spoke of discomfort seeking in-person therapy services for her child due to the associated stigma and noted that an online program would be a preferable way of seeking services. She stated:

• “There’s so much shame and quiet about it, that it’s not talked about, so this might be a way.”

Finally, some participants discussed the potential of the program to improve their children’s symptoms. One participant noted that although her estimation (via the CEQ) of potential improvement in her child’s symptoms appeared low, she actually believed it to be extremely valuable. She provided the following insight:

• “It says, ‘By the end of therapy, how much improvement would there be?’

Because I’m a realist and I would never expect 100% for anything, like for
anxiety, I am going to aim low, but just make sure you know that, to me, is significant. Because if I saw a 10% improvement from doing this little bit of work, that’s huge, you know, for a child. So I’m going to go like 30% but to me that would be—with the effort I would actually have to put in and the outcome to make an immediate difference—I think that’s really big.”

8.0 Module Finalization

Following the analysis of all data, the primary researcher met with the research supervisor to discuss parents’ recommendations for improving the module. Because parents’ suggestions were not as extensive as those gathered from therapists, the primary researcher and research supervisor made fewer module modifications following the completion of Phase 2. The only concrete recommendation for improving the exposure therapy module’s content was to provide more examples of how to implement an exposure ladder. As such, an example was added to the end of the module to assist parents with homework completion. The suggestion to add a navigation bar to improve the module’s layout will be taken once the module is uploaded to its intended website. A final version of the exposure therapy module can be found in Appendix K.

9.0 Discussion

Parent-administered ICBT represents a potentially effective and highly accessible treatment option for child anxiety. As far as the current state of the literature is known, there are no CBT programs that are parent-administered, therapist-guided, and delivered entirely via the Internet. Exposure therapy is anticipated to be a particularly challenging aspect of parent-administered ICBT. Some researchers believe that parents may find it difficult to develop exposure hierarchies and may be hesitant to enforce them. Thus, it is
important to ensure that exposure therapy is presented in a manner that provides parents with sufficient guidance, clarification, and support. The purpose of the present study was to develop and test the usability of an exposure therapy module as part of a larger therapist-guided, parent-administered ICBT program, known as *The Child Anxiety Course for Parents*. The usability objectives of this study were to develop a module that would be acceptable, clear, user-friendly, and feasible. Following initial development of the module, therapist and parent participants were recruited for usability testing. Testing followed an iterative process, in which therapist feedback was used to inform further development of the module prior to its review by parents. Parent feedback was then incorporated into finalization of the module.

The present study contributes to the literature on parent-administered exposure therapy in a number of ways. It is one of the only known studies to focus on the development and evaluation of a therapist-guided, parent-administered, online exposure therapy module. In doing so, this study provides important information regarding what has the potential to become an effective, inexpensive, and easily accessible treatment option for childhood anxiety disorders. More specifically, findings provide support for the developed module’s acceptability, clarity, user-friendliness, and feasibility, and therefore, suggest that the module is ready for implementation and further evaluation.

The results of this study also add to the body of knowledge on usability testing for online therapy programming. Findings provide support for the value of employing different methods of data collection, including focus groups and the “think aloud” approach. The focus groups proved to be an appropriate means of collecting therapist feedback, as they allowed therapists with a variety of experiences in child anxiety
treatment to come together, engage in rigorous and specialized discussion, and build on each other’s suggestions for module improvement. Conversely, using the “think aloud” approach with parents allowed parents to speak in more depth about their own individual children—something that they may have been less comfortable discussing in a group setting. This approach also served as an effective way of gathering accurate first impressions of usability, as parents were able to relay their perceptions of the module without delay. The present study also highlights the utility of using an iterative process to gather feedback. Including a second phase of data collection facilitated the examination of changes that resulted from Phase 1. Without parent feedback, there would have been less support for conclusions drawn about the workability of the module, including the utility of therapists’ suggestions.

Finally, results of the present study illustrate the benefits of collecting feedback not only from clients themselves (in this case, parents), but also from service providers (therapists), as these two groups can offer unique perspectives that together provide a more comprehensive picture of program usability. Gathering therapist feedback was valuable as it allowed for the input of individuals who had expertise in delivering exposure therapy and in working with children with anxiety and their parents. Gathering parent feedback helped to ensure that the module made sense and appealed to the general audience toward whom it was targeted. In the following sections, therapist and parent contributions are discussed in terms of the four usability objectives: acceptability, clarity, user-friendliness, and feasibility. Within this discussion, implications for the implementation of the module are highlighted.
9.1 Acceptability

In their review of the exposure therapy module, therapists expressed concern that there was not enough encouragement provided for parents. More specifically, therapists wanted to see more acknowledgement of the challenging nature of exposure therapy. Their concerns echo those of researchers who have asserted that exposure therapy represents a particularly difficult aspect of parent-administered treatment, especially in the context of an online program (e.g., Holmes et al., 2009). In other forms of parent-administered therapy, parents are able to receive encouragement and validation via face-to-face or telephone contact with a therapist. In an online format, this type of support is not available, and therefore, additional areas of support must be created. To address this issue, therapists suggested simply adding statements throughout the module to recognize the level of difficulty involved in exposure therapy. Parents responded positively to this recommendation, as many of them commented appreciatively on sentences that had been added to reflect more recognition. This suggests that one or two lines of text acknowledging the associated difficulty of exposure therapy may be a simple but effective means of helping parents feel more validated and supported.

Therapist guidance represents another promising way of providing support to parents. Both therapists and parent participants relayed satisfaction with the proposed form of therapist contact (i.e., weekly e-mail messages). Parents, in particular, expressed appreciation for the opportunity to e-mail a therapist if any concerns or questions arose. Because the provision of support tends to be more difficult in an online format, it is important that special attention be given to ensuring that the weekly check-in be used not only as a means of answering parents’ questions, but also as a means of providing them
with encouragement and validation. The literature on ICBT for adults suggests that programs featuring therapist guidance produce superior outcomes compared to programs that are entirely unguided (Cowpertwait & Clarke, 2013; Newman et al., 2010). The limited research on parent-administered CBT via workbooks also points to the value of therapist guidance (e.g., Thirlwall et al., 2013; Rapee et al., 2006). Results of the present study add to a relatively scarce body of literature on the role of therapist guidance in parent-administered ICBT specifically, suggesting that therapist guidance may represent a highly valuable component of treatment.

Of interest, there was some disagreement among therapists regarding how much support should be offered. Some therapists expressed satisfaction with weekly contact, while others requested increasing the contact to twice per week. It is possible that some parents may require more support than others, but once again, the research into parent-administered ICBT is limited. In a study of ICBT for adolescents, the ICBT program, including the level of therapist support contained therein, was individually tailored to each adolescent participant (Silfvernagel, Gren-Landell, Emanuelsson, Carlbring, & Andersson, 2015). In order to individualize the program, a therapist conducted a clinical interview with each participant and, based on the information gathered, selected appropriate modules for each participant to complete. Furthermore, as participants worked through the program, they were able to have additional telephone or face-to-face contact with the therapist if desired. Unfortunately, tailoring the level of therapist support to individual participants may result in reduced efficiency due to the increased amount of therapist time required per client. Research into ICBT for adults that has found one weekly therapist check-in to be a sufficient amount of contact suggests that individual
tailoring may not be necessary, and one to two standard weekly check-ins may indeed be effective. The question of how much support parents actually need represents an important direction for future research.

In discussing the acceptability of the exposure therapy module, participants also directed some of their feedback toward the module’s use of examples. In both their qualitative feedback and their responses to the ETMSQ, parents noted that the examples were helpful. They also requested more examples to further demonstrate how to break a feared situation into smaller steps. The finding that participants responded well to examples is unsurprising, as the use of examples is common in other ICBT programs (e.g., Khanna & Kendall, 2008; Titov et al., 2013). It does, however, provide additional support in regard to parent-administered ICBT specifically, as it suggests that the use of realistic and relatable examples may be an efficient way to make exposure therapy more appealing to parents.

It is also possible that greater use of examples may actually reduce the need for therapist support. If parents are able to gain a strong understanding of how to implement exposure therapy by reading different examples of its implementation, then they may not need to speak to therapists as frequently for clarification. More research is needed to assess whether examples can in fact serve as an acceptable alternative for more frequent therapist contact; if so, this would significantly reduce the amount of time therapists need to spend with each parent, thereby increasing program accessibility. It remains unclear exactly how many examples would be needed to achieve this feat. Furthermore, it is unknown whether the provision of too many examples could be perceived as negative. While examples provide parents with more clarification, they also equate to more text
and, therefore, a longer module, which could potentially reduce the likelihood of parents working through the entire module. In the ICBT literature, while many researchers refer to the use of case examples within their program, they do not typically specify the number of examples included (e.g., Mullen et al., 2015; Silfvernagel et al., 2015; Titov et al., 2013). Therefore, more research is needed to draw firm conclusions about the use of examples in ICBT, and in parent-administered ICBT specifically.

Overall, results indicate that the developed exposure therapy module meets the usability objective of acceptability. The primary piece of feedback that emerged from therapists revolved around the importance of encouragement and support. Parents commented favourably on specific areas that resulted from therapist recommendations, thereby providing support for the value of these recommendations. Across the five parent participants, similar feedback emerged, namely that the content of the module resonated with them, that they appreciated the provision of support, and that they liked the examples. Parents’ main recommendation was to add more examples illustrating the development of a fear ladder—a recommendation that was followed during the finalization of the module.

Although parents did not have many suggestions for enhancing the module’s appeal, their feedback still provides valuable insight into the acceptability of the module. If there had not been a second phase of data collection, then little information could be gleaned regarding whether therapists’ suggestions served to enhance acceptability. Furthermore, without Phase 2, no conclusions about the acceptability of the module could be drawn in terms of parents’ perceptions. Because it is parents who will ultimately be implementing the module with their children, it is important to include
their perspective in module development. In doing so, conclusions about the module’s acceptability can be drawn with a greater degree of certainty.

9.2 Clarity

Therapists and parents provided somewhat conflicting feedback regarding the exposure therapy module’s clarity. Therapist participants voiced concern that parents would have difficulty understanding the instructions for developing a fear ladder. This concern has been echoed in the literature, with some researchers opting to incorporate a telephone check-in with therapists into their program due to anticipation that receiving only written instructions would prove too challenging for parents. Interestingly, parent participants did not express similar sentiments. In fact, in their qualitative feedback, parents stated that the exposure therapy module was easy to understand. Furthermore, in their responses to the ETMSQ, parents affirmed that the module provided them with a good understanding of how to develop a fear ladder and how to practice the ladder with their children. On one item of the ETMSQ, some parents relayed a belief that the homework itself might be somewhat challenging; however, their qualitative feedback suggested that this was due not to a lack of understanding, but rather, to the associated difficulty of the task itself. Their responses on the PSSUQ also reflected satisfaction with the clarity of information.

To address their concern that parents may have difficulty grasping some of the concepts, therapists suggested adding more detailed explanations—a suggestion that did not emerge as frequently among parents. Therapists, it seemed, wanted as much information as possible to be provided within the exposure therapy module. Conversely, parents seemed to appreciate the shorter length of the module and instead indicated that
the few areas where they wanted more clarification could perhaps be addressed via examples or e-mail contact with their therapist. One explanation for the discrepancy between therapist and parent feedback is that therapists’ suggestions that were incorporated into the module (e.g., more detailed explanations) served to make it more comprehensible, and thus when parents reviewed the revised module, there was simply not as much need for clarification. This would provide further support for the value of an iterative approach, as it suggests that the clarity of the module was significantly improved between phases.

Alternatively, it is possible that the parents in the present study were simply not representative of the parents therapists had in mind when discussing their concerns about clarity. Because this sample of parents was highly educated compared to the general population, they may have found the materials easier to understand than would parents typically seen for face-to-face services at a community mental health clinic. Nevertheless, it is also possible that therapists in the present study simply underestimated parents’ capacity. This is a particularly noteworthy possibility, as it could provide illumination for other researchers who have expressed similar uncertainty about parents’ ability to understand the process of exposure therapy based only on written instructions. For example, Holmes and colleagues (2009) chose to incorporate telephone contact with a therapist into their program due, in part, to a concern that parents may have difficulty understanding how to develop exposure hierarchies. The present findings suggest a possibility that telephone contact may not actually be necessary to enhance comprehensibility; further research with a more diverse sample is needed to examine this possibility.
From parent participants’ feedback, it seems that the developed module meets the stated usability objective of clarity. Their overwhelmingly favourable impressions regarding the logic and clarity of the module suggest that parents may do well with written instructions for understanding exposure therapy, and that more research should be conducted to examine whether this holds true upon application of the module. If parents still find the module easy to understand during implementation, this provides support for the potential merits of parent-administered exposure therapy that is delivered entirely via written instructions over the Internet.

9.3 User-friendliness

Therapist and parent participants alike reported high levels of satisfaction with the program’s layout and structure. This was particularly evident in parents’ high ratings of the interface of the program via the PSSUQ and in their high ratings of the layout via the ETMSQ. In their qualitative feedback, therapists and parents confirmed that they found the visual appearance pleasant and enjoyed the graphics, including photos of text message conversations illustrating dialogue between parents and children. They also appreciated the combination of visuals and text and were pleased that there was not an excess of information on each page. As such, the results of the present study provide further support for findings from other usability studies (e.g., Currie et al., 2010; McMillen & Pehrsson, 2009) that have emphasized the importance of visual appeal and of a manageable amount of text (e.g., by using bullet points rather than paragraphs). It can be difficult to strike a balance between providing participants with sufficient information and yet not overwhelming them with too much text. The exposure therapy module seems to have achieved such a balance, and thus can be used as an example for
other researchers, including, though not limited to, those interested in developing online programming for parents.

Based on participants’ receptiveness to the module’s layout, recommendations for other program developers would be to adhere to the following general guidelines: no more than approximately 40 pages of content per module; the rotation of more text-heavy pages with pages containing images; a minimum of one image for every two to three pages; and approximately 24 point font size for the content of each page. Future research into parent-administered programming may benefit from further examination of the effects of these recommendations. While participants’ qualitative comments certainly suggest satisfaction with the layout of the module, it may be beneficial to conduct a quantitative evaluation to compare different formats. For example, studies could assess whether different layouts (e.g., different amounts of information; different numbers of pages) influence parents’ engagement in treatment.

It is noteworthy that the module’s aesthetics (i.e., images; font size; colour scheme), as well as the amount of information and number of pages contained in the module, did not undergo any major transformations from the original module. Therefore, it would seem that usability testing did not serve to significantly improve the layout. However, there were certain aspects of the layout that benefited from the evaluation. For example, parent participants commented favourably on the continuity of information across modules. They appreciated instances where the exposure therapy module drew on strategies from previous modules (e.g., (progressive muscle relaxation; cognitive restructuring). Such continuity was the result of therapist participants’ recommendations
during focus groups. This provides support for the value of usability testing in enhancing layout, and therefore, user-friendliness.

Although therapists and parents were unable to review the module on its intended system (i.e., a website to be designed through the Online Therapy Unit for Service, Education, and Research), they still generated suggestions for enhancing the module’s mode of delivery. Therapists focused on ways to make the module more accessible for parents, such as ensuring that it is cell-phone compatible and that it allows for parents to download and print PDF homework assignments. Parents, on the other hand, focused their suggestions on enhancing navigation. In particular, they wanted a navigation bar to be added to the side so that they could more easily go back to previous lessons and to previous pages within one lesson. This finding has been echoed in other usability studies (Currie et al., 2010) in which participants expressed desire for a navigation bar at the bottom of each page. The suggestion to add a navigation bar will be followed when the module is uploaded to its intended system.

From therapist and parent feedback, it is clear that the module meets the usability objective of user-friendliness. While a number of recommendations emerged during therapist focus groups, by the time the module was presented to parents, parents had few suggestions to add. Furthermore, suggestions from both groups were relatively minor. Based on their feedback, it seems that the module is indeed visually appealing, well organized, easy to navigate, and accessible, and is therefore ready for dissemination in terms of ease of use.
9.4 Feasibility

Therapists and parent participants directed a great deal of feedback toward the perceived workability of the exposure therapy module, including barriers to implementation and their own interest in using the module. In discussing barriers to implementation, therapists tended to speak of barriers that related to parents’ ability to administer the strategies, while parents tended to speak of external barriers in their day-to-day lives. Therapists’ concerns regarding implementation often pertained to the ability of parents to understand the materials; as discussed in relation to module clarity, they made numerous suggestions for improving the comprehensibility (e.g., adding more explanations and examples). However, therapists also expressed concern that parents may have difficulty enforcing the strategy itself. They believed that parents’ own anxiety could represent a significant obstacle to implementation.

There has been some research examining the impact of parent anxiety on traditional (i.e., therapist-directed) exposure therapy. Because exposure therapy requires regular practice in the child’s day-to-day life, parents tend to play an important role in the outcome, even when the therapy is therapist-directed. However, parents of children with anxiety commonly experience anxiety themselves, and sometimes, their own anxiety may make it difficult for them to encourage their child’s exposure practice (Ginsburg et al., 1995). If this is the case in traditional exposure therapy, then it may be even more salient in online, parent-administered exposure therapy, in which parents are entirely responsible for guiding and enforcing the exposure process.

Within traditional exposure therapy, researchers have emphasized the benefits of working with parents on addressing their own anxiety so that they can better facilitate
their child’s treatment. For example, Ginsburg and colleagues (1995) recommended using a “dyad” approach, in which both the child and the parent are taught how to reduce anxiety (e.g., psychoeducation on the importance of exposure). Therefore, parent-administered exposure therapy may actually be at an advantage here, because by nature of the treatment, parents are already receiving psychoeducation on anxiety and on the benefits of exposure therapy. While the information is, of course, targeted toward their child’s anxiety, it is possible that it may be enough to address some of the problems posed by parent anxiety (e.g., parents will receive education on the harm of avoidance, and therefore, may become more cognizant of instances where they are modelling avoidance themselves). To further address parent anxiety, it may be helpful to include more discussion of it within the program by encouraging parents to engage in self-monitoring. It is possible that through self-monitoring, parents may become more aware of whether their own patterns of thinking or behaving could be affecting their child’s treatment.

Therapist contact can also serve as a means through which to evaluate whether parent anxiety is interfering with exposure. If, in communicating with parents, therapists find that parent anxiety is posing a significant barrier, this may be a point at which therapists provide suggested resources for parents to seek help for their own anxiety. It can also serve as a platform to initiate a discussion with parents about whether another adult in their child’s life would be better suited toward acting as the guide during the exposure portion of treatment. Once again, this provides support for the added benefits of therapist guidance in comparison to programs that are entirely unguided.
It is unsurprising that therapists in the present study had concerns about parents’ ability to deliver exposure therapy. The literature has demonstrated that many therapists have reservations about implementing exposure therapy in practice. While therapists in the present study were not hesitant to implement exposure therapy themselves, they had concerns about its potential with parents at the helm. Similarly, research has suggested that developers of parent-administered ICBT are concerned about parents’ ability to implement exposure therapy without face-to-face or telephone guidance from a therapist (Holmes et al., 2009). What was unexpected in the present study was the finding that parent participants did not share these reservations.

In discussing the potential implementation of exposure therapy, parents did not express the same degree of reluctance. While there were a couple of inquiries, such as what to do if the child developed new fears, there was little in parent comments that indicated scepticism about the strategy itself or their own ability to implement it. Parents’ main request for module modification was the allotment of more time for completion (i.e., more than two weeks). In addition, while parents’ responses to the ETMSQ pointed to some expected difficulty with the homework, they also reflected a high level of comfort with implementing the module. These findings are particularly striking given the research that suggests that therapists themselves often worry that exposure therapy may worsen anxiety symptoms (Schare & Wyatt, 2013). One would expect that if therapists, many of whom have extensive training in evidence-based therapy, have concerns about exposure therapy, parents might be even more reluctant.

There are a few possible explanations for the discrepancy between therapists’ and parents’ views of exposure therapy. It is possible that therapists’ recommendations, such
as providing more information and encouragement, which were incorporated into the module prior to parent review, contributed to parents’ more favourable impressions of the module’s feasibility. If this is the case, it provides support for the potential of online programs to successfully address issues revolving around parent anxiety and parent encouragement. It also highlights the benefits of usability testing, and particularly of taking an iterative approach in which testing is conducted with service providers prior to clients themselves.

Alternatively, it is possible that parents in the present study simply did not share therapists’ apprehension about exposure therapy. Indeed, some parents may be more willing to push their children to practice exposure therapy than has been anticipated by therapists and researchers alike. This explanation provides compelling support for the potential workability of parent-administered exposure therapy, as it suggests that some of the challenges predicted by therapists and researchers may not come to fruition upon program dissemination.

However, it is also possible that parents’ high level of comfort with the module would not remain steady if they were to implement it in real life. It may be the case that parents were unable to fully envision the degree of difficulty involved in the task, due to their lack of familiarity with the subject matter. Therapist participants, in contrast, had a wealth of experience in working with parents to deliver exposure therapy, and therefore may have been better able to speak to its practical outcomes. However, it is important not to discount parents’ impressions, regardless of their level of experience in implementation. Parents are the ones most familiar with their children’s capabilities and
preferences, and therefore, are still in a strong position to comment on the perceived workability of implementation.

It is worth noting that some therapists did relay a belief that certain populations of parents would have an easier time implementing the program than others. More specifically, they anticipated that highly educated parents would find it easier to implement. This could also explain why the present study’s sample of parents did not share therapists’ concerns about their ability to implement; they were simply not the population of parents to whom therapists were referring. There has been research examining the impact of education on treatment outcome in ICBT for adults. Alaoui and colleagues (2015) found that higher levels of education predicted greater treatment adherence but not symptom improvement in ICBT for social anxiety. Hedman, Andersson, Lekander, and Ljotsson (2015) found that higher levels of education did not predict treatment success in ICBT for health anxiety. These results suggest that education level may not necessarily have a significant impact on symptom improvement.

It is also possible that highly educated clients may be the ones most interested and most likely to participate in online, self-help treatments. Furthermore, ICBT does not exclusively target the population that presents at clinics for face-to-face services; rather, it targets individuals who face barriers in accessing services. This includes individuals who are uncomfortable seeking face-to-face services, and therefore, may have never attended a clinic. As such, although the present sample of parents may have differed from the parents typically seen by therapist participants, they may in fact be representative of parents who would implement *The Child Anxiety Course for Parents* upon its dissemination.
In discussing their perceptions of barriers to implementation, parent participants tended to focus on barriers in their own day-to-day lives, such a lack of time to commit or a lack of motivation. There is little information in the literature pertaining to the anticipated time commitment involved in parent-administered therapy, although Chavira and colleagues (2014) found in their investigation of parent-administered CBT that parents did not identify competing stressors or obstacles as a significant barrier to implementation. The knowledge base on motivation problems is also limited. There is research into online exposure therapy for adults that suggests some issues with participant adherence and dropout rates. Therefore, it is possible that the same challenges could arise in the dissemination of this exposure therapy module, and such challenges could in fact relate to parents’ self-identified motivation difficulties.

Some parents recommended addressing motivation problems by adding a designated weekly appointment time with the therapist, suggesting that this might be enough to keep parents on track and adhering to the program. There is research suggesting that therapist guidance in ICBT for adults is in fact associated with a reduced risk of attrition in comparison to unguided ICBT (e.g., Newman et al., 2010; Richards & Richardson, 2012); it is possible that this reduced risk is related to perceptions of greater accountability when a therapist is involved, and therefore, higher motivation. The proposed plan for therapist contact within the developed program was initially a weekly check-in message from the therapist. The present findings provide support for this plan but also suggest that it may be beneficial to include a more structured interaction, in which the therapist not only sends a message to the parent on a designated day but the parent actually provides an update of their progress on a designated day. Knowing that
they will need to provide a progress update may be enough to help parents overcome
motivation issues. To further address motivation, it might be beneficial to include a more
thorough review at the beginning of the subsequent module, in which parents are
couraged to take a moment to engage in evaluation of how the last module went.

Parents’ concerns about children’s motivation were somewhat unexpected. The
most common strategy for enhancing children’s motivation in other CBT programs is the
use of rewards (e.g., Khanna & Kendall, 2008). In the present study, a full module on
“Encouraging Cooperation” was included earlier in the program and then referenced
again in the exposure therapy module, and yet parents still worried that their children
would not remain engaged in treatment. This may be another instance in which
structured therapist contact becomes important, as the therapist may be able to provide
parents with more ideas for rewards specifically tailored to their child’s interests.
Alternatively, it may be helpful to incorporate a more structured reward system as part of
the program. For example, perhaps at the beginning of each module, parents can be
instructed to engage in a self-evaluation session with their children, in which they review
in detail the previous week’s progress, provide rewards, and then discuss what needs to
happen in the subsequent week to continue earning rewards. It is possible that further
emphasizing the importance of structure and consistency may facilitate parents’ ability to
address motivation barriers.

Despite participants’ concerns about motivation, their credibility ratings for the
program were high. Past research into parent-administered treatment for conduct
problems found that parents’ credibility scores predicted their motivation and
engagement in treatment (Nock et al., 2007). Therefore, it is interesting that parents in
the present study perceived the program as highly credible and yet still anticipated motivation difficulties. It is possible that their concerns about motivation may not have come to fruition if they had had the opportunity to implement the program. Alternatively, it is possible that the link between perceived credibility and motivation is simply not as strong for child anxiety treatment.

In addition to the barriers identified, one parent expressed concern about the effectiveness of certain CBT strategies, as she had tried them in the past with little success. It may, in part, be due to past treatment experiences that program expectancy ratings on the CEQ were somewhat moderate. The lower expectancy ratings are concerning because expectancy has been linked to certain treatment outcomes. The developers of the CEQ found that expectancy ratings predicted positive treatment outcomes on some measures, such as measures of global distress and subjective units of disturbance (Devilly & Borkovec, 2000). Research into ICBT for adults has also identified a link between credibility and expectancy scores and treatment outcomes. For example, Hedman, Andersson, and colleagues (2012) found that higher expectancy of ICBT at pre-treatment predicted better clinical outcomes among clients with social anxiety. In a more recent study, Hedman and colleagues (2015) found that higher credibility scores predicted greater improvements in health anxiety. This indicates that when participants report more favourable perceptions of credibility and higher expectations, they are more likely to have a positive treatment outcome. If parents are sceptical about the potential efficacy of the program, then this could affect their children’s outcomes. Nevertheless, the expectancy ratings were still on the middle to higher end of the scale, indicating that parents did believe the program had the potential
to lead to some improvement in their children’s symptoms. Furthermore, in their qualitative feedback, parents frequently relayed optimism that the exposure therapy module itself could in fact be helpful for their children.

Because parent-administered therapy is a relatively new area of research, it is important to gather more information about perceptions regarding potential treatment success. It is possible that reservations based on past treatment experiences could represent a significant barrier to implementation of exposure therapy. Perhaps such concerns could be addressed by including a section on past treatment experiences within the module. It may also be beneficial to have therapists communicate with parents before the module commences to assess whether parents have tried exposure therapy before and how that may affect their expectations for treatment outcome. Therapists could also provide psychoeducation around possible reasons for a lack of past success, as well as some tips for going forward.

Despite the predicted barriers to implementation, all parents expressed strong interest in implementing *The Child Anxiety Course for Parents* with their children. Similarly, although therapists predicted some obstacles to implementation, they still relayed interest in delivering this type of program. Both groups emphasized that the program could represent a viable treatment option, particularly for individuals who are unable to seek or feel uncomfortable seeking in-person services. Regarding the exposure module specifically, parent participants spoke favourably about their comfort with implementing it, and in general, relayed optimism about its potential to help their children. Feedback from both groups provides further support for the proposed method of therapist contact (i.e., weekly e-mail messages). Overall, findings from the present
study suggest that the developed module does in fact meet the usability objective of feasibility.

9.5 Summary of Feedback

In discussing the exposure therapy module, therapist and parent participants provided a wealth of feedback about the module’s acceptability, clarity, user-friendliness, and feasibility. The iterative nature of data collection proved highly beneficial, as parents commented favourably on several changes that resulted from therapists’ recommendations. Furthermore, parents had far fewer suggestions for module improvement in comparison to therapists, suggesting that a high degree of improvement resulted from the first phase of data collection. This also highlights the value of using the expertise of service providers (in this case, therapists) in the development of online programming. Parents spoke favourably of the module’s acceptability, clarity, and ease of use. They also reported a high level of comfort with the prospect of implementing the module, thereby providing support for its feasibility.

Overall, results provide a number of directions for the development of other parent-administered exposure therapy modules. Most notably, findings highlight a need for program developers to: provide parents with encouragement by acknowledging the difficult nature of exposure therapy; include several examples that highlight the steps involved in developing and implementing the fear ladder; incorporate references to other skills outside of exposure therapy, such as relaxation; and ensure that the amount of text on each page is manageable by balancing text with images or graphics. Furthermore, results suggest that therapist contact may represent an important means of providing parents with support and validation, helping parents to monitor the impact of their own
anxiety, and helping parents to address motivation difficulties for both themselves and their children. From therapist and parent feedback, it seems that usability testing successfully resulted in the development of a module that is acceptable, clear, user-friendly, and feasible, and as such, is ready for further evaluation through implementation.

10.0 Limitations and Future Directions

The present study is one of the first of its kind to examine therapist-guided, parent-administered, online exposure therapy, and has provided important insights into the development and evaluation of this type of treatment. However, this study also has limitations. Although the framework used in the present study closely mirrored methodologies employed in other usability studies (Currie et al., 2010; Kushniruk, 2002; Moore et al., 2013), there were certain restrictions. Not all elements of the program could be evaluated. For example, while participants were told about the planned mode of therapist contact, they did not have the opportunity to actively engage with the therapist. Furthermore, the exposure therapy module itself was not available for viewing on its final website. Although therapists and parents were able to view the same slides that will be used in the final version of the module, their ability to provide feedback about the system quality may have been restricted. This also means that results from the PSSUQ are somewhat limited, as questions pertaining to system quality were inapplicable, and therefore the system quality subscale and the overall scale could not be interpreted. The primary area of feedback affected by this limitation relates to website navigation; however, both groups were still able to generate some feedback pertaining to that domain (e.g., suggestions to add a navigation bar).
While focus groups have been identified as a useful way of gathering information for the development of ICBT programs (Moore et al., 2013; Williams, 2011), they do carry certain restrictions. For example, during the course of a focus group, one comment can sometimes lead the whole group to focus on one issue, which is then given much more weight than it would have been given in individual interviews. Furthermore, because the feedback gathered during focus groups is based on a small number of participants’ opinions (i.e., is highly subjective), this could lead to feedback that is inaccurate or with which other therapists or researchers disagree. For example, while therapists in the present study believed that the cognitive restructuring module should come before the exposure therapy module, it is possible that other therapists would disagree based on their own experiences. That being said, it is still possible to gather different opinions using a focus group format. For example, when some participants voiced concern that two weeks would not be long enough for the exposure therapy module, other participants challenged this, stating that if the program were any longer, parents may be more likely to drop out. Through collaborative discussion, the group was able to brainstorm a possible compromise (i.e., by including subsequent reminders to continue working on exposure therapy beyond the two week window).

Focus group feedback in the present study may have also been influenced by the fact that all therapist participants worked at the same agency, namely a community mental health clinic. If therapists from private practice had been included, this may have resulted in a wider range of views and suggestions based on experiences with a different population of clients. There was also a risk that because the focus groups consisted entirely of colleagues, this could have reproduced workplace group dynamics, which
may in turn have influenced the direction and tone of the discussion. However, the high quantity of constructive suggestions and continuous brainstorming that emerged during the focus groups could suggest that knowing each other actually made participants feel more at ease and promoted collaboration. Overall, despite the limitations, the use of focus groups in the present study had a number of strengths, most notably the facilitation of in-depth discussion and brainstorming.

The “think aloud” approach employed in Phase 2 of this study has been used effectively in several other usability studies and has been identified as a helpful way of gathering individual participant feedback (e.g., Currie et al., 2010; Kushniruk, 2002; Moore et al., 2013). However, it is possible that the number and nature of participant comments in the present study were limited due to parents’ knowledge that the person conducting the usability testing was also the developer of the program. Participants may not have felt comfortable providing verbal feedback of a critical nature. Nevertheless, they were provided with the opportunity to type additional comments, and it is hoped that this may have helped to combat such concerns.

It is also possible that parents’ quantitative ratings of the module (via the ETMSQ, PSSUQ, and CEQ) may have been different had their responses been anonymous. Because their ratings were tied to their demographic information, they may have been reluctant to appear critical of the module. However, several of the participants discussed their quantitative ratings out loud and seemed comfortable highlighting the reasons for lower ratings on certain items. As such, it remains unclear whether the lack of anonymity did in fact influence ratings.
The iterative nature of the present study (i.e., via two phases of data collection) allowed for connections to be drawn between therapists’ suggestions and parents’ receptiveness to changes resulting from these suggestions. However, direct comparisons between therapist feedback and parent feedback could not be made due to the different methodologies employed in each phase. Therapist and parent participants did not complete the same measures, and therefore, there was no quantifiable way of assessing improvement of usability perceptions from one phase to the next. Furthermore, therapists and parents naturally brought with them different backgrounds and perspectives, and while this was useful in gathering a wide range of unique insights, it also limited comparisons that could be drawn between their feedback. In order to be able to make concrete and quantifiable comparisons between phases, the same audience of users (i.e., therapists or parents) and the same measures would need to be used in both phases. However, using different methodologies and tailoring them to the different groups of participants was also beneficial, as therapists seemed to respond well to the opportunity to discuss their impressions with other therapists, while the “think aloud” approach seemed to allow parents to speak in more detail about the applicability of the module to their own children.

The primary goal of both phases of data collection was to identify major issues with the exposure therapy module’s usability. As has been the case in other usability studies, a small sample of participants (i.e., 10 participants in Phase 1 and five participants in Phase 2) was found to be a suitable number. It must, however, be acknowledged that having a small sample naturally brings with it certain limitations.
This is particularly pertinent in discussing parent feedback, as the small sample may limit generalizability of the results to other parents.

First, the present study’s sample of parents was highly educated, which could mean that their ability to easily read and understand content is not representative of all parents. However, as noted above, it is also possible that the parents who participated in this study may in fact be representative of parents who would be interested in participating in the program, as parents who are more educated may be the ones with a stronger desire to complete a self-help form of treatment. More research is needed to further assess the bearing that educational background may have on treatment engagement and completion. This could be achieved by the inclusion of parents with a wider range of educational backgrounds in the pilot study of the program.

Second, all participants were recruited through the University of Regina’s Listserv address book, and as such, all participants were employed by the University of Regina. This means that the sample was not diverse in terms of geographic location. The extent to which this lack of diversity may have influenced results is unclear; however, it is possible that the results do not generalize to parents from different locations, particularly those living in more rural or remote areas. It is also possible that the results are not representative of parents who work in organizations outside of the University of Regina. Nevertheless, although the present sample of parents consisted entirely of University employees, participants did vary in terms of their job titles and areas.

Third, all participants in the present study identified as Caucasian. As such, results may not be generalizable to parents from diverse ethnic and cultural backgrounds.
This provides an important future direction, as pilot testing of this project should look to evaluate program efficacy across a diverse range of ethnicities and cultures.

Because parent-administered ICBT is a relatively new area of research, there are several research questions to be addressed through further studies. As noted above, the next logical step in the evaluation of The Child Anxiety Course for Parents is to conduct a pilot study. A pilot study can provide valuable information about how the program might work in practice, including information regarding time, cost, barriers to implementation, and effect sizes. Beyond the smaller scale pilot study, future directions may include randomized controlled trials examining the efficacy of The Child Anxiety Course for Parents compared to face-to-face CBT and to unguided programs (e.g., Coaching for Confidence). It may also be important to examine the impact of the parent factors identified within the present study, including education level, presence of anxiety, time commitment, motivation, and past treatment experiences, on treatment outcome.

Finally, it may be beneficial to measure the practical benefits and challenges of the exposure therapy module specifically. Exposure therapy is anticipated by therapists and researchers to be the most challenging component of treatment, but it is also potentially the most valuable. In fact, some research suggests that exposure therapy on its own may lead to symptom improvement for certain anxiety disorders. If this is found to be true of parent-administered, online treatment as well, then families would not necessarily need to complete The Child Anxiety Course for Parents as a whole; rather, the exposure therapy module could be modified to serve as a stand alone treatment option for certain forms of anxiety. If this proved effective, it would mean that families would have to commit less time to treatment, thereby reducing risk of attrition.
11.0 Researcher Reflections

While I believe that the present study provides a strong example of how usability testing can strengthen a program, I also want to highlight that this process was not without its challenges. From my point of view, I had expected a small-scale study such as this one to run smoothly and efficiently; however, I quickly learned that research often takes longer than planned. For example, conducting the thematic analysis was a time-consuming and demanding process, as there was so much detailed feedback to work through and organize. This involved substantial collaboration between my supervisor, my lab volunteers, and me, and often required rereading, reorganizing, and recoding. Through this project, I was able to strengthen my skills as a researcher—skills that I will take with me when I move to the next phase of evaluating this program.

Despite the challenges of this project, I was delighted to find that all of my participants had a wealth of insightful feedback to offer. Therapist and parent participants were incredibly articulate and had many exciting ideas for this project’s improvement. I was also struck by the dedication of parent participants in seeking services for their children. While I had grown up in a rural area that lacked mental health services and had also researched barriers to seeking services, it was nevertheless eye opening to speak firsthand to parents who were searching for a treatment option that fit for them and their children. After hearing from these parents, I feel more strongly than ever that there is a real need for a program like The Child Anxiety Course for Parents. Thanks to my participants’ feedback, I believe that this program has been immeasurably strengthened, and may ultimately serve as a viable treatment option.
12.0 Conclusion

Parent-administered ICBT represents a potentially effective, inexpensive, and highly accessible treatment option for child anxiety. To our knowledge, there are no CBT programs that are parent-administered, therapist-guided, and delivered entirely via the Internet. Exposure therapy is believed to be a particularly challenging aspect of this type of programming, but results from the present study suggest that it is indeed feasible. By contributing to the development of *The Child Anxiety Course for Parents*, which is expected to eventually serve as a treatment option in Saskatchewan, the present study may ultimately serve to increase Saskatchewan children’s access to mental health services. Furthermore, this study can serve as an example for researchers interested in developing parent-administered ICBT programs beyond the Canadian context.
References


Appendix A

Ethical Approval

May 16, 2016

Dr. Lynn Loutzenhiser
University of Regina
Department of Psychology
3737 Wascana Parkway
Regina, SK S4S 0A2

Dear Dr. Loutzenhiser,

RE: REB-16-38, U of R 2016-074
Title: Developing a low-intensity parent-directed CBT treatment program for children with anxiety via the On-Line Therapy Unit

Your application for research ethics review has undergone a harmonized review by the Regina Qu’Appelle Health Region (RQHR) and University of Regina (U of R) Research Ethics Boards (REBs). In accordance with the Research Ethics Review Reciprocity Agreement signed by the University of Saskatchewan, University of Regina, and Regina Qu’Appelle Health Region, the RQHR REB accepts the Certificate of Approval issued by U of R REB. This letter is issued to you in lieu of a Certificate of Approval by the RQHR REB. This letter permits you to conduct research activities as approved by the U of R REB, provided that you maintain a valid and up-to-date Certificate of Approval.

All continuing ethics review will be conducted by the U of R REB. The U of R is authorized to share all communications pertaining to this file with the RQHR REB at their discretion. The RQHR REB may provide input into continuing ethical review activities, as agreed upon by both REBs.

The RQHR REB reserves the right to revoke the privileges described in this letter at any time in order to conduct their own independent research ethics review of your project. Such a decision would be communicated to you and the U of R REB in writing.

If at any time you will require resources, participants, or data from any additional departments, you must provide the RQHR REB with the required signatures before proceeding.

Best wishes for your continuing research endeavours.

Sincerely,

[Signature]

Dr. Jennifer St. Onge, Acting Chair
Research Ethics Board
Regina Qu’Appelle Health Region

cc. University of Regina Research Ethics Board
Appendix B
Phase 1 Consent Form

Participant Consent Form

**Project Title:** Developing a low-intensity parent-directed CBT treatment program for children with anxiety via the On-Line Therapy Unit

**Researcher(s):**
Principal Applicant: Dr. Lynn Loutzenhiser, lynn.loutzenhiser@uregina.ca, 306-585-4078

Co-Principal Applicant: Dr. Heather Hadjistavropoulos, heather.hadjistavropoulos@uregina.ca, 306-585-5133

Co-Applicant responsible for this arm of the project: Katherine Mazenc, katherinemazenc@gmail.com, 306-537-5789

Other Co-Applicants:
Amy Zarzeczny
David Gerhard University of Regina Co-Applicant
Glenna Curry Child and Youth Services-Regina Qu'Appelle Health Region Co-Applicant
Michelle McCarron Regina Qu'Appelle Health Region Co-Applicant
Senthil Damodharan Regina Qu'Appelle Health Region Co-Applicant

**Funded by:** The Saskatchewan Health Research Foundation.

**Purpose(s) and Objective(s) of the Research:**
The aim of this research project is to contribute to the development of a parent-delivered ICBT program for children with anxiety.

**Procedures:**

- We are seeking your consent to participate in a focus group with other mental health professionals. During the focus group, you would be asked to answer a few
specific questions, and would also have the opportunity to raise additional issues or add any content you feel is relevant.

- Your participation is voluntary. It is up to you to decide whether or not you wish to take part. If you decide to participate, you are still free to withdraw until such time as your identity is removed from your data and it has been aggregated with other data. Once that has occurred, withdrawal will no longer be possible. If you do choose to withdraw, you do not have to give any reasons for your decision.

- The focus group would be scheduled at your convenience and, with your permission, would be recorded to ensure accurate interpretation of results.

- We anticipate the focus group will take on average between 2-4 hours to complete, but the length will largely be up to each individual participant and dependent on how much detail he/she wishes to discuss.

- No identifying information about participants will be published and no comments will be attributed to any particular individual.

- Please feel free to ask any questions regarding the procedures and goals of the study or your role.

**Potential Risks:**

- There are no known or anticipated risks to you by participating in this research.

- While comments will remain anonymous, given the population sample it may be possible for some individuals to connect your comments with your identity. You have complete control over what information you do or do not chose to share. Indeed, we encourage you to only answer the questions and address the topics you feel comfortable with.

**Potential Benefits:**

- This research will not result in any direct benefits to participants. However, it will inform peer-reviewed publications, policy recommendations, and production of public and media engagement tools aimed at improving access to mental health treatment for children suffering from anxiety.

**Compensation:** You will not be compensated for your participation in this study.

**Confidentiality:**

- Participants’ identities will remain confidential. No identifying information will be published or otherwise shared in the dissemination of results.

- With your consent, the interview will be recorded to ensure accurate reporting of results, but you may request that the recording devise be turned off at any point.

- Electronic data from the study will be stored on password protected systems and hard copies will be stored in secure locations at the University of Regina. All data will be retained for a minimum of 5 years and will ultimately be deleted and/or destroyed.

**Follow up:**

- To obtain results from the study, please advise a member of the research team that you would like to be advised of any resulting publications from this research.
Questions or Concerns:

• If you have any questions or concerns, please contact the researcher(s) using the information at the top of page 1.
• This project has been approved on ethical grounds by the University of Regina Research Ethics Board on May 9, 2016 and the Regina Qu’Appelle Health Region on May 16, 2016. Any questions regarding your rights as a participant may be addressed to the committee at (585-4775 or research.ethics@uregina.ca). Out of town participants may call collect.

Consent

Your signature below indicates that:
• you have read and understand the description provided;
• you have had an opportunity to ask questions and your questions have been answered;
• you consent to participate in the research project;
• you were given sufficient time to think about it;
• you are free to withdraw from this study, until such time as your identity has been removed from your data, with no negative consequences;
• you understand that by signing this document you do not waive any of your legal rights;
• you have been informed there is no guarantee that this study will provide any benefits to you, and
• a copy of this Consent Form has been given to you for your records.

By initialing below, I acknowledge that I have given permission for my interview to be audio recorded for transcription purposes.

Participant’s initials: ________

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Appendix C

Focus Group Interview Guide

Q1. Could you please introduce yourself and tell us a bit about your experiences working with children with anxiety and their parents?

Q2. We’re not sure how many of you have had a chance to look at the modules, but if you have, what do you think?

Do you have comments about particular modules?

What were your thoughts on the content of the modules? Do you think they are easy for parents to understand? Was there anything missing that you expected to see?

We are particularly interested in your thoughts on the “Facing the Fear” module. Do you think it is easy for parents to understand? Anything that we missed?

What do you think about the formatting/look of the modules? Were they clear enough?

Q3. We are interested in your thoughts on how this program will work.

Our plan is to have parents complete a short screening measure for eligibility, then a longer on-line measure to gain additional information and then a brief phone conversation before beginning the program. What do you think of this?

What do you think of the way the program is ordered?

Our idea is to have parents complete this program in 9 weeks. We are thinking about giving parents a week for most modules, but two weeks for “reducing reassurance seeking and checking” and “facing your fears”. What do you think?

We are planning to have therapists check in with parents once a week for the nine-weeks via e-mail. What do you think about this?

Q4. We are interested in your thoughts on potential barriers for parents in accessing and completing this program. What do you think these might be?

Q5. Overall, how effective do you think this type of parent-directed on-line program will be for treating children’s anxiety?

Q6. Would you be interested in delivering this type of program as a therapist?

What makes you interested/not interested?

What factors might facilitate your delivery of this type of program? (e.g., designated time, manager buy-in, training, computer access)?

What factors might interfere with your delivery of this type of program?
Appendix D

Phase 2 Recruitment Email

subject: Do you have a child between the ages of 7 and 12 who experiences anxiety?

Do you have a child between the ages of 7 and 12 who experiences anxiety?

We are developing a program for parents to help their children manage anxiety. We are looking for parents to help us in the creation of this program by reviewing the program and providing us with feedback.

As a participant in this research project, you would be asked to come to the university and run through our internet-based program.

Your participation would involve 2 sessions. We expect the sessions to take approximately 2 hours.

In appreciation of your time, you will receive $50 compensation per session.

This project is being done by the Child and Family Research Lab under the supervision of Dr. Lynn Loutzenhiser. The project has been approved on ethical grounds by the University of Regina and Regina Qu’Appelle Health Region Research Ethics Boards.

For more information about this research project or to volunteer for this project, please feel free to contact me at katherinemazenc@gmail.com.

Thank you for your time,

Katherine Mazenc
Child and Family Research Group
University of Regina
306-585-4800
Appendix E
Phase 2 Consent Form

Participant Consent Form

Project Title: Developing a low-intensity parent-directed CBT treatment program for children with anxiety via the On-Line Therapy Unit

Researcher(s):

Principal Applicant: Dr. Lynn Loutzenhisser, lynn.loutzenhisser@uregina.ca, 306-585-4078

Co-Principal Applicant: Dr. Heather Hadjistavropoulos, heather.hadjistavropoulos@uregina.ca, 306-585-5133

Co-Applicant responsible for this arm of the project: Katherine Mazenc, katherinemazenc@gmail.com, 306-537-5789

Other Co-Applicants:

Amy Zarzeczny University of Regina Co-Applicant
David Gerhard University of Regina Co-Applicant
Glenna Curry Child and Youth Services-Regina Qu'Appelle Health Region Co-Applicant
Michelle McCarron Regina Qu'Appelle Health Region Co-Applicant
Senthil Damodharan Regina Qu'Appelle Health Region

Funded by: The Saskatchewan Health Research Foundation.

Purpose(s) and Objective(s) of the Research:

The aim of this research project is to contribute to the development of a parent-delivered ICBT program for children with anxiety.
Procedures:

• We are seeking your consent to participate in the review and evaluation of an online therapy program for childhood anxiety. You will be asked to work through the program on-site at the University of Regina by logging into one of our computers. As you work through the program, you will be asked to “think aloud” by providing verbal feedback regarding the program’s structure and content. You will also be asked to complete a battery of questionnaires.

• Your participation is voluntary. It is up to you to decide whether or not you wish to take part. If you decide to participate, you are still free to withdraw until such time as your identity is removed from your data and it has been aggregated with other data. Once that has occurred, withdrawal will no longer be possible. If you do choose to withdraw, you do not have to give any reasons for your decision.

• The program review would be scheduled at your convenience and, with your permission, would be recorded to ensure accurate interpretation of results.

• We anticipate the review will take two sessions, each which will last on average 2 hours, but the length will largely be up to each individual participant and dependent on the speed at which he or she works through the program.

• No identifying information about participants will be published and no comments will be attributed to any particular individual.

• Please feel free to ask any questions regarding the procedures and goals of the study or your role.

Potential Risks:

• There are no known or anticipated risks to you by participating in this research.

• While comments will remain anonymous, given the population sample it may be possible for some individuals to connect your comments with your identity. You have complete control over what information you do or do not choose to share. Indeed, we encourage you to only answer the questions and address the topics you feel comfortable with.

Potential Benefits:

• This research will not result in any direct benefits to participants. However, it will inform peer-reviewed publications, policy recommendations, and production of public and media engagement tools aimed at improving access to mental health treatment for children suffering from anxiety.

Compensation: You will be compensated $50 per session for your participation in this study.

Confidentiality:

• Participants’ identities will remain confidential. No identifying information will be published or otherwise shared in the dissemination of results.
• With your consent, the interview will be audio-recorded to ensure accurate reporting of results, but you may request that the recording devise be turned off at any point.
• Electronic data from the study will be stored on password-protected systems and hard copies will be stored in secure locations at the University of Regina. All data will be retained for a minimum of 5 years and will ultimately be deleted and/or destroyed.

Follow up:
• To obtain results from the study, please advise a member of the research team that you would like to be advised of any resulting publications from this research.

Questions or Concerns:
• If you have any questions or concerns, please contact the researcher(s) using the information at the top of page 1.
• This project has been approved on ethical grounds by the University of Regina Research Ethics Board on May 9, 2016 and the Regina Qu’Appelle Health Region on May 16, 2016. Any questions regarding your rights as a participant may be addressed to the committee at (585-4775 or research.ethics@uregina.ca).

Consent

Your signature below indicates that:
• you have read and understand the description provided;
• you have had an opportunity to ask questions and your questions have been answered;
• you consent to participate in the research project;
• you were given sufficient time to think about it;
• you are free to withdraw from this study, until such time as your identity has been removed from your data, with no negative consequences;
• you understand that by signing this document you do not waive any of your legal rights;
• you have been informed there is no guarantee that this study will provide any benefits to you, and
• a copy of this Consent Form has been given to you for your records.

By initializing below, I acknowledge that I have given permission for my interview to be audio recorded for transcription purposes.
Participant’s initials: _______
Appendix F

Demographic Profile

Before reviewing the program, it is helpful for us to gather some information about you and your family.

How many children do you have?

How many of your children experience anxiety?

If you have more than one child between the ages of 7 and 12 who experiences anxiety, please choose one child to think about when you are answering the questions.

What is your child’s gender?
Male
Female
Other

How old is your child?

How would you rate your child’s level of anxiety?
Mild
1 2 3 4 5 6 7
Severe

How much does your anxiety interfere with his or her functioning in the following areas:
At home
1 2 3 4 5
At school
Not at all
Very much
In other activities

What is your gender?
Male
Female
Other

What is your cultural or ethnic background? Please check all that apply.
Aboriginal
African
Asian
Caucasian
Hispanic
Other

What is your age?
What is the highest level of education you have completed?
Some high school
Grade 12 diploma
Some post-secondary
Apprenticeship
College, technical, or vocational school
Undergraduate degree
Graduate degree

Are you currently:
Working (full time)
Working (part time)
Homemaking
Working half time/school half time
Retired
Not working due to disability
Other

What is your marital status?
Single/never married
Married/living as married
Divorced/Separated
Widow/Widower
Other

Do you reside in Saskatchewan?
Yes
No

Which of the following is the best approximation of the city/town/village in which you reside?
Under 10,000
10,001 to 20,000
20,001 to 30,000
30,001 to 40,000
40,001 to 50,000
50,001 to 60,000
60,001 to 70,000
70,001 to 80,000
80,001 to 90,000
90,001 to 100,000
100,001 to 200,000
200,001 to 300,000
Above 300,000
Appendix G

Exposure Therapy Module Satisfaction Questionnaire

The following questions are designed to assess your satisfaction with Lesson 5. Please rate your agreement with each statement.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

1. The information in this lesson was clear.
2. This lesson did not teach me any new information.
3. This lesson provided me with a good understanding of why it is beneficial for children to face their fears.
4. This lesson provided me with a good understanding of how to use rewards to motivate my child to face his or her fear.
5. This lesson provided me with a good understanding of how to design a fear ladder for my child.
6. This lesson provided me with a good understanding of how to break a fear into smaller steps.
7. This lesson provided me with a good understanding of how to practice the fear ladder with my child.
8. The examples in this lesson were helpful.
9. I do not understand how to fill out the homework worksheet.
10. It was easy to read through this lesson.
11. The organization of information in this lesson is unclear.
12. The length of this lesson was suitable.
13. The amount of information on each page was acceptable.
14. I liked the layout of this lesson.
15. The visual appearance of this lesson was pleasant.
16. It would be difficult to complete the homework for this lesson.
17. I would feel comfortable implementing this lesson with my child.
18. I believe this lesson would be helpful for my child.
19. Overall, I am satisfied with this lesson.
Appendix H

Post-Study System Usability Questionnaire

Now that you have had a chance to read through all seven lessons, we would like to gather your feedback about the program as a whole.

Please read each statement and indicate how strongly you agree or disagree with the statement by selecting a number on the scale. If a statement does not apply to you, select N/A.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Strongly Disagree</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Overall, I am satisfied with how easy it is to use this system
2. It was simple to use this system
3. I could effectively complete the tasks and scenarios using this system
4. I was able to complete the tasks and scenarios quickly using this system
5. I was able to efficiently complete the tasks and scenarios using this system
6. I felt comfortable using this system
7. It was easy to learn to use this system
8. I believe I could become productive quickly using this system
9. The system gave error messages that clearly told me how to fix problems
10. Whenever I made a mistake using the system, I could recover easily and quickly
11. The information (such as on-line help, on-screen messages, and other documentation) provided with this system was clear
12. It was easy to find the information I needed
13. The information provided for the system was easy to understand
14. The information was effective in helping me complete the tasks and scenarios
15. The organization of information on the system screens was clear
   Note: The “interface” includes those items that you use to interact with the system. For example, some components of the interface are the keyboard, the mouse, the microphone, and the screens (including their use of graphics and language).
16. The interface of this system was pleasant
17. I liked using the interface of this system
18. This system has all the functions and capabilities I expect it to have
19. Overall, I am satisfied with this system
Appendix I

Credibility/Expectancy Questionnaire

We would like you to indicate below how much you believe, right now, that this therapy program would help to reduce your child's anxiety. Belief usually has two aspects to it: (1) what one thinks will happen and (2) what one feels will happen. Sometimes these are similar; sometimes they are different. Please answer the questions below. In the first set, answer in terms of what you think. In the second set, answer in terms of what you really and truly feel.

Set 1

1. At this point, how logical does the treatment offered seem?

<table>
<thead>
<tr>
<th>Not at all logical</th>
<th>Somewhat logical</th>
<th>Very logical</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

2. At this point, how successful do you think this treatment would be in reducing your child’s anxiety symptoms?

<table>
<thead>
<tr>
<th>Not at all useful</th>
<th>Somewhat useful</th>
<th>Very useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

3. How confident would you be in recommending this treatment to a friend whose child experiences similar anxiety problems?

<table>
<thead>
<tr>
<th>Not at all confident</th>
<th>Somewhat confident</th>
<th>Very confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

4. By the end of the therapy period, how much improvement in your child’s anxiety symptoms do you think would occur?

10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Set 2

For this set, close your eyes for a few moments, and try to identify what you feel about the therapy and its likely success. Then answer the following questions.

1. At this point, how much do you feel that treatment would help you to reduce your child’s anxiety symptoms?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Somewhat</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

2. By the end of the treatment period, how much improvement in your child’s anxiety symptoms do you feel would occur?

10%  20%  30%  40%  50%  60%  70%  80%  90%  100%
Appendix J

Qualitative Questions

Do you have any additional comments about Lesson 5?

The following questions are for you to provide more detailed feedback about the program.

What did you like about the program?

What did you think could be improved about the program?

What would be some challenges in completing the whole program?

What would make it easier for you to implement this program with your child?
Appendix K

Finalized Exposure Therapy Module

Lesson 5

Facing Fear

Outline

In this lesson, you will learn how to help your child face situations that he or she may be avoiding out of fear. We suggest that you spend two weeks on this lesson.

Many parents report that while this lesson takes time, persistence, and patience, it goes a long way toward helping children overcome their anxiety.
Avoidance

Some children cope with anxiety by avoiding the situations that they fear. Avoiding feared situations makes sense as it can help keep us safe. For example:

- If I am scared of falling off a cliff, I should avoid walking near the edge.
- If I am scared of a wasp sting, I should avoid walking near a wasp’s nest.

However, for children with anxiety problems, **avoidance is the key factor in keeping the fear strong**. In the long run, avoidance causes much more difficulty than the fear itself.
Avoidance and fear

The longer avoidance goes on, the harder it is to overcome the fear.

The best way to reduce avoidance behaviours is through the face-the-fear approach.

Facing the Fear
Face-the-fear approach

The most powerful way to overcome a fear is to face the fear. Another term for the face-the-fear approach is exposure to feared situations or exposure.

We know it can be very difficult for children to face the things they are afraid of. However, we have heard from many parents who have tried this approach that it pays off to stick with it.

Face-the-fear approach

The face-the-fear approach works for a wide range of fears, including fears of:

- Being dropped off at school
- Having a friend over to play
- Learning how to swim
- Being embarrassed
- Losing a parent
- Bodily symptoms

You may find that these examples do not apply to your child. Nevertheless, the principles of the face-the-fear approach are the same no matter what the specific fear is.
Maria (age 7): Afraid of staying with a babysitter

Maria’s grandma was the only person who took care of Maria when her mother, Emily, was away from home. One day, Grandma was away, so Emily hired a babysitter, Claudia. When Emily returned, Claudia told her that Maria had spent the whole time crying.

When Emily asked Maria why she was upset, Maria told her that she was scared that something bad might happen when Mom was away. Emily realized that it was not a good idea to rely on only one person (Grandma) to babysit. She decided to use the face-the-fear approach to help Maria tackle her fear.

Using the face-the-fear approach

There are 6 main steps to the face-the-fear approach:
1. Select areas to work on
2. Create a step-by-step plan
3. Plan rewards
4. Discuss the plan with your child
5. Practice the plan
6. Engage in self-evaluation
Step 1: Select which areas to work on

Usually children with anxiety have a number of different fears. In deciding what fear to work on, it is best to select areas that are most important to you and your child.

- For example, a child may be very shy and have few friends but may also have a fear of needles. Since friendship is such an important part of life, it may be best to work first on encouraging friendships.
- For Emily, helping Maria to be comfortable staying with a babysitter is very important for the whole family.

In addition, some fears come up often, while others come up only once a year. You and your child will see more progress in overcoming anxiety if you practice the situations that come up more often.

Step 2: Create a step-by-step plan

Once you have decided what area of fear to work on, it is time to plan how to help your child face that fear. This can be done using a fear ladder.

A fear ladder breaks the feared situation down into different steps, with the scariest step at the top of the ladder and the least scary step at the bottom of the ladder.
Fear thermometer

It is important to rate each step of the fear ladder by using a fear thermometer. This is a 0 to 10 scale where 0 is the least scary and 10 is the scariest. You and your child can rate your child’s anxiety by comparing different situations.

- For Maria, staying with the babysitter for an hour is a 4 while staying with the babysitter overnight is a 10.

Building the ladder

When building your child’s fear ladder, it is helpful to begin by thinking about your child’s ultimate goal. This goal will be at the top of the ladder. It is the scariest step (the step with the highest fear rating). For Maria, the ultimate goal is to be able to stay with a babysitter overnight, so this is at the top of her ladder.

Other examples of goals include:
- Being able to go to the dentist
- Being able to do a class presentation
- Being able to sleep in their own room at night
- Being able to attend a friend’s birthday party
Breaking the goal into easier steps

Once you have decided on the goal, it is time to break it down into smaller steps that do not produce as much anxiety. These steps will be the remaining steps of your child’s fear ladder (working down to the least scary step at the bottom). There are many ways to break feared situations into easier steps:

- Start with having a trusted adult close by and then practice with a less familiar adult or alone
- Start further away from the situation and gradually move closer
- Spend less time in the feared situation and then longer times
- Start with familiar people and places and then move toward less familiar people and places
- Break complex activities into parts

Moving up the ladder

When your child begins practicing the fear ladder (during step 5 of the face-the-fear approach), he or she will start with the bottom step of the ladder. After repeated practice, this step will become less scary. Once your child is able to practice this step without feeling much anxiety, he or she can move on to the next step.

By beginning with less scary steps (steps 1-3), your child can build up confidence while also learning to gradually tolerate greater levels of anxiety (steps 8-10).
In the fear ladder on the following page, Emily and Maria have listed situations they can practice in order to help Maria become more comfortable staying with a babysitter.

You will see that Emily and Maria have broken the goal (being able to stay with a babysitter) into many small steps. They have rated each step, with the least scary step at the bottom and the scariest step at the top.

At the end of this lesson, you and your child will work on a fear ladder to help your child face his or her fear.
Using stories to face fear

Some feared situations do not come up very often or are difficult to practice repeatedly, such as:

- Visits to the doctor or dentist
- Having an injection or blood sample drawn
- An airplane flight
- Dealing with an upsetting event – such as worries about a tornado

In these cases, parents can use stories and video material. Stories and videos may also be used as the earlier, less difficult steps in a fear ladder before working on real life practice.

Story ideas

Children’s stories: A helpful story will describe a difficult situation and how the child copes effectively in spite of anxiety. The Berenstain Bears and the Scaredy Squirrel series have good stories for younger children.

Writing a story with your child: A versatile approach to facing fears is writing a story about the feared situation and then reading it together regularly until the fear subsides. Make the story detailed and use the child’s own words.

Youtube: You may search www.youtube.com to find helpful videos about situations that are difficult for your child. Be sure to watch the video carefully yourself before sharing it with your child.
Video examples

Some examples of videos that may be useful:

- For a child who has a fear of flying, you can find a Youtube video showing a flight taking off
- For a child who has a fear of needles, you can find a Youtube video of someone getting a needle

Remember to start your ladder with small steps. Watching a video of someone getting a needle may be a higher step. A better starting point might be simply looking at a picture of a needle.

Step 3: Plan rewards

Motivation is very important when it comes to the face-the-fear approach. Many children with anxiety are strongly motivated to avoid the feared situation. It is important for you and your child to plan a reward for facing the fear before you begin practicing each step of the fear ladder.

- Effective rewards were described in Lesson 2.
Helpful hints when using rewards

- The best rewards are agreed upon in advance with your child. It is important for your child to have a clear idea of what he or she is working toward when practicing the fear ladder.
- It is also important to follow through on rewards as soon as possible after the practice. If your child is motivated by a special activity, make sure that he or she gets to do this activity sooner rather than later.
- Some parents find that their child is still resistant to facing the fear even after the promise of a reward. One way to handle this is by using rewards that are immediately available. For younger children in particular, it can be helpful to show them the reward before practice so that they are reminded of what they are working toward.

Step 4: Discuss the plan

Once you have worked out a fear ladder and planned rewards, it is helpful to discuss the plan with your child before getting started.

On the following page is an example of how Emily could discuss the plan with Maria.
Discussing the plan with Maria

Maria, you were really nervous when you stayed with Claudia while Mom went out the other day. Do you remember that?

M I thought something bad might happen. I don’t like staying with a babysitter.

I know it’s hard, but Mom has to get a babysitter sometimes. If we practice that, it will get a lot easier.

But I only want to stay with Grandma.

It’s great when you can stay with Grandma, but Grandma can’t always look after you, so it’s important to practice staying with Claudia too. We can make that a lot easier by having Claudia come over and play with you when Mom is at home. Once you know her more, it will be easier when Mom goes out.

Step 5: Practice the plan

Once you and your child have discussed the plan, it is time to start practicing. Repeated, prolonged practice is very important in overcoming anxiety because it helps make your child’s feeling of comfort in a situation more reliable.

You and your child will begin with the bottom step of your child’s fear ladder. Practice this step a few times until you are sure that your child is handling it with modest anxiety. Once your child feels more comfortable with this step, you can move up to the next one. How quickly you move through each step depends on how your child is doing.
Practice sessions

Longer practice sessions produce stronger results.
- Whenever possible, it is best to stay in the feared situation until you see that your child’s anxiety is reduced. It is helpful to rate the fear before the situation and then near the end of the situation. This will help your child to see that fear usually decreases with practice.

More practice sessions each week also produce stronger results.
- Five 30-minute practices in one week will produce more reduction in fear than five 30-minute practices over five weeks.
- It can also be helpful to incorporate practice sessions as part of your child’s regular routine or schedule.

Practicing tolerating anxiety

It can be very difficult to watch your child face the fear, especially if his or her anxiety does not settle right away. There may be times when you want to end a practice session early. It is important to remember that it takes time for anxiety to decrease, and sometimes it may seem to get worse before it gets better.

It can actually be more harmful to pull your child out of the feared situation too quickly. Facing feelings of fear and finding that he or she can get through them increases your child’s confidence that he or she is able to be brave and cope with anxiety.
Helpful hints when facing the fear

- Because learning to tolerate anxiety is an important part of overcoming anxiety, it is best not to distract your child with too much talking, coaching, or reassurance giving during practice. Encourage your child to pay attention to the fear.
- Remind your child to use skills he or she has already learned to help him or her feel more confident in facing the fear. For example:
  - Maria may experience unhelpful thoughts leading up to a practice session. She can tackle these thoughts with the realistic thinking steps from Lesson 4.
  - If Maria continues to feel anxious after a practice session, she can use progressive muscle relaxation.

Breaking it down into smaller steps

If, after repeated practice, a step is still too difficult (your child is very anxious and does not settle after a reasonable time), you and your child can try breaking the task into smaller steps.

- For example, if Emily finds that Maria is still very anxious every time she practices staying with the babysitter for an hour, she can break this step down further by having Maria stay with the babysitter for a shorter period of time, before eventually working back up to one hour.
Step 6: Engage in self-evaluation

Children look to parents to evaluate how they handle situations. It is also important for children to learn self-evaluation skills. It is helpful to discuss how things went after each practice session. This helps your child to notice that the fear usually goes down over time.

On the following page is an example of a discussion between René and his dad. René has a fear of bees. Today they went to a garden to look for bees and to count them.

René (age 8): Fear of bees

So René, how do you think it went with the practice today?

R
I was really scared at first. But after a while I wasn't so nervous.

How would you rate your fear at the start and then just before we finished and came home?

R
The fear was an 8 at the start and then it was about 4 at the end.

It sounds like it really came down. What do you think we could practice next time?

R
I think I would be ready to go closer to the bees next time.

That is a great idea. Let's practice again tomorrow after school.
Questions for self-evaluation

Here are some questions that help with self-evaluation:

- What did you notice happened to the anxiety as time went on?
- What was the hardest part?
- You were worried about [bad thing happening]. Did you learn anything about that?
- Is there anything you would do differently next time?
- What do you think will happen if you keep practicing this?
In this lesson, we learned:

- Children often avoid feared situations as a way to cope with their anxiety. In the long run, **avoidance causes much more difficulty than the fear itself.**

- The **face-the-fear approach** is the most powerful way to overcome problems with anxiety. While this approach can be challenging, the more time you invest, the more results you will see in reducing your child’s anxiety and increasing his or her confidence and independence.

---

**Homework**

Over the next two weeks, create and practice your child’s step-by-step plan.

- Make a fear ladder, plan rewards, and start practicing with your child a step at a time.

- It may take time to see results, so remember to help your child evaluate and recognize his or her progress along the way.

Continue working with your child on reducing reassurance seeking and checking behaviours, and encourage your child to keep practicing other skills he or she has learned, including progressive muscle relaxation and realistic thinking.
Your child’s fear ladder

Use a fear ladder like this to plan an area to work on (the goal) and steps to reach that goal. Take a look at the examples on the following pages to help you design your child’s fear ladder. Contact your therapist if you would like feedback on the ladder.

Goal:

<table>
<thead>
<tr>
<th>Rating</th>
<th>Situation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
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<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Example of homework sheet

Take a look at the following example for 7-year-old Sam, who is afraid of being dropped off at school.

Goal: Sam is dropped off at school independently.

<table>
<thead>
<tr>
<th>Rating</th>
<th>Situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Mom says a quick goodbye (1 minute). Sam walks from the car to the school and walks to his classroom.</td>
</tr>
<tr>
<td>7</td>
<td>Mom takes Sam from the car halfway to the school door and says a quick goodbye (1 minute). Sam goes walks to the door, goes into the school and walks to his classroom.</td>
</tr>
<tr>
<td>6</td>
<td>Mom takes Sam from the car to the school door and says a quick goodbye (1 minute). Sam goes into the school and walks to his classroom.</td>
</tr>
<tr>
<td>5</td>
<td>Mom walks with Sam into the school and goes to the classroom. She leaves after a quick goodbye 1 minutes. Sam stays with the teacher even if he is upset.</td>
</tr>
<tr>
<td>4</td>
<td>Mom walks with Sam into the school and goes to the classroom. She leaves after 2 minutes. Sam stays with the teacher even if he is upset.</td>
</tr>
<tr>
<td>2</td>
<td>Mom walks with Sam into the school and goes to the classroom. She leaves after 5 minutes. Sam stays with the teacher even if he is upset.</td>
</tr>
</tbody>
</table>
Take a look at the following example for 10-year-old Diana, who is afraid of going to the dentist.

**Goal:** *Diana goes to the dentist.*

<table>
<thead>
<tr>
<th>Rating</th>
<th>Situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td><em>Diana goes to the dentist’s office for a checkup.</em></td>
</tr>
<tr>
<td>9</td>
<td><em>Diana watches a video of someone getting a dental checkup.</em></td>
</tr>
<tr>
<td>7</td>
<td><em>Diana rereads her story out loud several times.</em></td>
</tr>
<tr>
<td>6</td>
<td><em>Diana writes a detailed story in which she goes to the dentist.</em></td>
</tr>
<tr>
<td>4</td>
<td><em>Diana reads a story about another child going to the dentist.</em></td>
</tr>
<tr>
<td>2</td>
<td><em>Diana looks at pictures of the dentist’s office.</em></td>
</tr>
</tbody>
</table>