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Understanding Service Gaps and Support Opportunities in the Treatment of Childhood Anxiety

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Abstract

Globally, anxiety disorders represent the most prevalent mental health disorders in children and youth (Polanczyk et al., 2015), with an increasing number of individuals perceiving the need for professional help (Georgiades et al., 2019). It is unclear, however, where families are seeking help from, what barriers families are facing, and what services are being provided for effective management of symptoms. Two methods were used to investigate possible treatment support models; a questionnaire identified patterns in parental help-seeking behaviours and outlined perceived barriers to professional help, while a scoping review examined key components of parent/caregiver treatment models. Findings showed that parents are seeking help but with various levels of satisfaction, and that psychoeducation and exposure are two of the most prominent elements in parent-led interventions for children with anxiety. These findings collectively showcase how clinicians can increase the inclusion of parents/caregivers in children with anxiety when developing treatment plans.

Keywords: Children, Anxiety, Service-Use, Barriers, Treatment, Parent-Led, Psychoeducation, Exposure

Summary for Lay Audience

Anxiety can be characterized by frequent, recurring thoughts and emotions, as well as physical anxious responses or behaviours that are more intense and disproportionate than their same age peers (American Psychological Association, 2020a). Anxiety disorders represent the most prevalent mental health disorders in children and youth across the globe (Polanczyk et al., 2015). It is unclear, however, where families are seeking help from, what barriers families are facing, and what services are being provided for effective management of symptom. Previous literature suggests that when professional help is accessed for anxiety symptoms, the treatment offered often has not been extensively researched and the process of seeking help has significant barriers for clients, such as cost, transportation, time commitment (Collins et al., 2004). The current project aimed to better understand barriers to care and treatment models that could support families seeking help for anxiety. Two methods were used the first was a questionnaire used to identify patterns in where parents are going for help, how satisfied they are with the care, and what barriers they have experienced or perceive to be present in accessing professional help. Second, a scoping review, which is a review of previous literature used by researchers to clarify concepts and identify knowledge gaps, was completed to understand the common therapeutic elements (i.e. psychoeducation, relaxation, exposure, etc.) of parent/caregiver treatment models for childhood anxiety. Findings showed that parents are seeking help but with various levels of satisfaction, and that psychoeducation, providing information on the disorder/diagnosis, and exposure, systematic and supported introduction to the anxiety inducing target, are two of the most prominent elements in parent-led interventions for children with anxiety. These findings collectively showcase how clinicians can increase the inclusion of parents/caregivers in children with anxiety when developing treatment plans.

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Understanding Service Gaps and Support Opportunities in the Treatment of Childhood Anxiety

Chapter 1: Introduction

Feelings of fear, nervousness, and worry are typical in young children. It is not uncommon for children to fear the dark, become nervous when entering a new classroom, or worry about their parents when they have left on a trip. However, the distinction between typical and atypical fear, nervousness, and worry is critical for understanding how problematic anxiety presents in childhood. According to the American Psychological Association (2020a), anxiety can be characterized by frequent, recurring thoughts and emotions, as well as physically anxious responses or behaviours that are more intense and disproportionate than their same age peers. These intrusive thoughts, feelings, or behaviours impact the daily functioning and mental health and well-being of a child.

Prevalence of Anxiety Disorders in Children

Globally, anxiety disorders are the most prevalent mental health disorders in children and youth. Polanczyk and colleagues (2015) collected data from 27 countries and found a prevalence rate for anxiety disorders of 6.5% in children and adolescents, between the ages of 6 to 18 years. This was higher than both depression and attention-deficit hyperactivity disorder (ADHD). Provincial statistics align with these global estimates; for example, the 2014 Ontario Child Health Study found that 18 to 22% of children and youth will meet the DSM-IV criteria for one mental health disorder, with anxiety disorders being the most common (Georgiades et al., 2019). Importantly though, these statistics are based exclusively on children and youth who have met diagnostic criteria for an anxiety disorder. Many children struggle with anxious thoughts, feelings, and behaviours that are interfering and problematic, but do not receive a diagnosis. For

example, Children's Mental Health Ontario (2020) reports that half of Ontario parents have been concerned about their child's level of anxiety, and a quarter of Ontario parents have missed work due to their child's experiences of anxiety. Further, Towe-Goodman and colleagues (2015) reported that families of children with anxiety were 3.5 times more likely to state their child's behaviour impacts the other members of the immediate family, when compared to parental reports of children without anxiety symptoms. More specifically, parents of children with anxiety displayed a range of impacts such as increased worry, disrupted relationships, restricted social activities, and decreased confidence in their parenting roles. These statistics collectively showcase not only how commonplace anxiety is and the disorders' consequences for children and youth, but the far-ranging impact it can have on the entire family (Children's Mental Health Ontario, 2020). Unfortunately, the impact of anxiety can have on children and their families is exacerbated when services are limited or when the interventions that are provided are ineffective.

Service Availability and Usage for Children with Anxiety

Although the prevalence of anxiety disorders in children has not significantly increased over the last decade (Baxter et al., 2014), there has been an increase in society's awareness and understanding of mental health issues. This growth in awareness and understanding may explain an increased number of families seeking help for mental health services (Children's Mental Health Ontario, 2020). The number of children and youth perceiving a need for professional help in supporting their mental health has gone from 7% to 19% from 1983 to 2014 (Georgiades et al., 2019). It is unclear, however, where families are seeking help from and how help seeking behaviours prompt the support and treatment that is provided for children presenting with anxiety symptoms. Previous literature suggests that the initial contact for help can be influential

on the services that are received or the subsequent referrals that are made. Ford and colleagues (2007) found that in Britain there was little communication between sectors of service providers (i.e. health care and education); as a result, an integrated approach to intervention was not taken. Interestingly, from the same sample, it was determined that children presenting with anxiety receive the least amount of support from mental health providers. Additional research out of Britain, suggests that over half of children with anxiety do not receive any professional help, and that only 2.3% of those that do get help are receiving evidence-based treatment (Reardon, Harvey, & Creswell, 2019). These findings are profoundly consistent with global reports that highlight a lack of collaboration among service providers and indicate a treatment gap for children with anxiety (Alonso et al., 2018).

In the Canadian context, statistics on the availability and usage of mental health services for children and youth with mental health problems are also concerning. Children's Mental Health Ontario (2020) reports that 83% of children will not receive treatment for a mental health disorder. There is also evidence in the literature that children with anxiety may be at a higher risk of not receiving treatment then those with any other mental health challenges. For example, Collins and colleagues (2004) estimated that only a third of children with anxiety are accessing any type of mental health services. Additionally, research conducted in Ontario indicates that for children with only anxiety as a concern or diagnosis, their parents or caregivers have significantly less contact with service providers significantly than children with comorbid mental health diagnoses (Georgiades et al., 2019). This trend is also observed in adults with mental health disorders (Roberge et al., 2011), reflective of an underutilization and limited availability of mental health services for individuals across the lifespan for anxiety.

A subsequent problem compounding the underutilization and limited availability of services is the approach and adequacy of treatment for problematic anxiety. Roberge and colleagues (2011) found that only 20% of Canadians with anxiety are receiving treatment services that meet the minimum requirements for evidence-based care. Additionally, research indicates that the majority of adults with anxiety disorders are not consulting healthcare professionals for concerns regarding their anxiety. Children, however, do not often have the opportunity to speak directly or privately with their health care provider. Therefore, healthcare professionals and mental health service providers are typically relying on parents to report concerns regarding their child's anxious symptoms and presentation of anxiety. Unfortunately, over half of parents of children with anxiety or depression are not discussing behavioural or emotional concerns with a primary caregiver, such as their family physician (Collins et al., 2004). When parents do reach out and receive help, Canadian statistics show that children are likely not receiving evidence-based treatment options.

There are a variety of proposed treatments for childhood anxiety as there are a variety of needs that are presented. One option involves medication to manage children's' anxious thoughts, feelings, and behaviours. According to previous literature, these pharmacological methods are being used more often than psychotherapy techniques, despite the significant difference in relapse rates (60% versus 30%, respectively) (Collins et al., 2004). This pattern may be attributed to the limited access many families have for mental health service providers. Collins and colleagues (2004) also report that the use of psychotherapy techniques is decreasing, despite psychotherapy being an evidence-based intervention option for children with anxiety (Creswell, Waite, & Cooper, 2014; PracticeWise, 2020). Importantly though, evidence-based does not mean that all techniques are effective for every disorder. For example, play therapy,

social skills training, rational emotive behaviour therapy, and psychodynamic therapy are all psychotherapy techniques; yet PracticeWise (2020) advises that these provide minimal support for children with anxiety and their families. Rather, cognitive behavioural therapy (CBT) is argued to be the optimal psychotherapy technique for children with anxiety and their families (Creswell, Waite, & Cooper, 2014; PracticeWise, 2020).

Proposed Solutions for Effective Treatment of Anxiety Symptoms

Cognitive behavioural therapy (CBT) is a form of psychological treatment, categorized as a psychotherapy technique that recognizes the interconnection between thoughts, feelings, and emotions (American Psychological Association, 2020b). There has been extensive research done on the effectiveness of CBT for a variety of mental health disorders, such as anxiety, depression, and eating disorders. This is because CBT is most effective for disorders that are characterized by faulty or unhelpful ways of thinking, as well as learned patterns of unhelpful behaviour. This therapeutic method works by recognizing distorted thoughts or problematic behaviours and evaluating them with factual information or situations based on the individual's current reality. Supplementary, yet equally important, parts to CBT include learning problem-solving and coping strategies for when tough situations arise, learning how to calm one's body and mind when feeling anxious, and gaining confidence in oneself through role-playing and methodical exposure to fears (American Psychological Association, 2020b). For example, if a child has anxiety about going to school a clinician using CBT methodology may introduce them to a *What Are They Thinking?* activity which helps the children verbalize thoughts and feelings that can be assessed by the clinician to identify the child's ability to verbalize cognitions (Stallard, 2002). The clinician would present two characters, one may be a child approaching the school and one could be sitting in their classroom. The child would be asked to suggest what these characters

may be thinking, the idea is that the thoughts projected on the characters are the thoughts and feelings the child experiences when their anxiety is triggers. This then presents an opportunity for the clinician to work with the child in to developing strategies for the characters to help them manage their thinking errors.

There is an extensive research literature supporting the use of CBT for a range of mental health problems. Butler and colleagues (2006) conducted a meta-analysis of literature on treatment outcomes for CBT on various disorders. Their results indicated that CBT is a highly effective treatment option for childhood anxiety, as well as generalized anxiety disorder, social phobia, and panic disorder in adults. Additionally, the meta-analysis revealed that the effects of CBT on anxiety persist for a significantly longer period following the cessation of treatment than alternative methods such as medication or relaxation techniques. Furthermore, Silverman, Pina, and Viswesvaran (2008) examined the effectiveness of multiple treatment methods for children and youth with anxiety in 32 research studies. Results yielded positive treatment responses for cognitive behavioural therapy in both individual and group settings. Further, it was determined that CBT appeared beneficial with parent involvement for children and youth with anxiety (Silverman, Pina, & Viswesvaran, 2008). These results support the use of CBT as a treatment method for children with anxiety, however, majority of the literature used in this review was based on research conducted through clinical trials.

Additional research is needed on the effectiveness of CBT for children with anxiety symptoms that have not yet reached diagnostic levels. Early interventions and opportunities for treatment outside of a traditional clinical setting such as in the family home or child's school can assist in management of anxiety symptoms prior to children reaching diagnostic levels of concern. There are many children that receive psychotherapy through an assigned school

psychologist or school counsellor, as it typically is more easily accessible due to the in-school sessions and reduced or eliminated financial aspects. Chiu and colleagues (2013) used a randomized trial to deliver CBT to children with anxiety in a school setting, and determined the effectiveness of the psychotherapy technique through pre- and posttreatment symptom checklists completed by caregivers and children, as well as the Clinical Global Impressions-Improvement scale. The results indicated that modular CBT delivery in a school setting is an effective treatment option for children with anxiety. More specifically, 95% of children that received CBT indicated a positive response to treatment and no longer exhibited symptoms that met criteria for an anxiety disorder (Chiu et al., 2013). Additionally, the remission rate for an anxiety diagnosis was found to be higher in comparison to the remission rate reported in laboratory studies. As shown, CBT is an effective evidence-based psychotherapy technique for school-aged children with anxiety and adapting the methodology to include supportive adults in the child's life can have a positive impact on the long-term outcomes of treatment.

Impact of Parent Involvement in Child Treatment

The amount of literature on parent-based treatment, especially for childhood anxiety, is expanding. Clinicians are beginning to receive resources that outline how beneficial parent involvement can be for managing children's anxious thoughts, feelings, and behaviours. For example, PracticeWise (2020) lists "family psychoeducation" under the good support category for anxious or avoidant behaviours in children and youth. There are multiple ways that treatment involving parents is being adapted around the world. In Iran, parents of preschoolers who had clinically significant levels of anxiety were given the opportunity to attend six two-hour in-person sessions that taught parents five steps to emotion coaching (Erissi et al., 2019). Results indicated that after the parents attended the sessions, 69% of the preschool children were in the

typical range for anxiety symptoms. An alternative intervention method was examined by Ginsberg and colleagues (2015). Due to the genetic component of anxiety, this research wanted to examine how parental involvement in an intervention could prevent the onset of an anxiety disorder by offering a family-based intervention to the parent with an anxiety disorder and their child. The results showed that at one-year follow-up, only 5% of the children that completed the family-based intervention met criteria for an anxiety disorder, in comparison to 31% of children in the control group. Overall, these results are promising for the involvement of parents in intervention methods for children with anxiety.

Another treatment program that has been researched in recent years is Supportive Parenting for Anxious Childhood Emotions (SPACE) (Lebowitz et al., 2014). The SPACE program focuses entirely on changing the parent's outlook and understanding of childhood anxiety, rather than focusing on the child's needs. The program aims to educate parents and reduce accommodations made by families to in turn reduce symptoms of anxiety in children. The SPACE program's pilot study showed significant reductions in children's anxiety symptoms, such that scores indicated response or remission of anxiety in all participants (Lebowitz et al., 2014). Interestingly though, the SPACE program, does not follow CBT methodology, despite PracticeWise (2020) listing both "CBT for child and parent" and "CBT with parent" under the best support category for anxious or avoidant behaviours in children and youth.

CBT is currently the most effective treatment for childhood anxiety, yet it is often underused or unavailable; therefore, Lebowitz and colleagues (2020) compared the efficacy of the SPACE program to CBT intervention for families of children with anxiety. Notably, the SPACE program involves no interactions between clinicians and the children with anxiety, while the CBT intervention has no parent-led or parent training components. These differences in client

interactions, make the focus and approach to treatment unique for each intervention. Following twelve in-person sessions of either the SPACE program or CBT intervention, results indicated that the SPACE program was as effective as the CBT intervention (Lebowitz et al., 2020). Thus, suggesting that both parent-led interventions and CBT methodology positively contribute to the treatment of childhood anxiety.

Common Elements of Anxiety Treatment Options

As the literature indicates, CBT along with parent-led interventions show positive outcomes for children with anxiety. However, deciding when to introduce CBT and what elements should be involved in the treatment model can be difficult to determine. Fortunately, Kendall et al. (2016) created an approach to assist in adapting treatment models based on needs through a stepped care model. The stepped care model identifies the needs of the individual based on severity of symptoms and responds accordingly with techniques and suggestions on what supportive personnel to involve. The stepped model begins with individuals recognizing their anxiety and gathering information and ranges to steps where a coordinated care team is developed to combat resistance through intensive programs. This model however does not specifically outline therapeutic elements that would be beneficial in the delivery of the actual programming.

Instead, Chorpita, Daleiden, and Weisz (2005) proposed a method referred to as the Distillation and Matching Model (DMM) to categorize interventions for children's mental health through a systematic review of treatment manuals and corresponding clinical trials. The distillation process allows reviewers to identify the treatment technique (i.e. cognitive behavioural, behavioural parent training) through a structured methodology, while also assessing the evidence of a particular intervention to determine if there is anything substantially different

between clinical trials of the intervention and the guidelines provided by the manual. The matching summarizes relevant considerations for selecting an intervention, including client and setting.

Chorpita and Daleiden (2009) applied this methodology to 615 treatment models from 322 randomized trials. Raters coded protocol for each treatment model using 47 practice elements. They examined multiple diagnoses, but found for anxiety the top ten were exposure (.80), relaxation (.42), cognitive techniques (.38), modeling (.33), psychoeducational-child (.27), therapist praise/rewards (.25), self-monitoring (.24), problem-solving (.17), psychoeducational-parent (.15), and maintenance/relapse prevention (.13). These results showcase that exposure is a valued component of evidence-based treatment models for anxiety. Notably though, aside from diagnosis, these studies were only coded for participant age, gender, and ethnicity. Chorpita and Daleiden (2009) did not, however, account for the who was delivering the treatment (i.e. therapist or parent-led), the method of delivery (i.e. in-person or telepsychology), and the time commitment for the intervention. Thus, highlighting where potential barriers may still lie for families of children with anxiety looking to access treatment models with effective therapeutic elements that match the appropriate needs of their child, whether they are just beginning to experience anxiety symptoms or have received a diagnosis due to intrusive worries.

Chapter 2: Rationale, Methodology, and Results of Current Study

There is clearly a significant amount of knowledge on evidence-based treatment for anxiety in children and youth but the gaps in service need a range of stepped care models to meet the diverse needs of these families. Additionally, there are alarming statistics regarding inadequate or inaccessible treatment. It raises questions, however, about what factors are contribute to these service gaps, as well as what supports or changes could help reduce the

treatment gap more effectively. Understanding help-seeking behaviours of parents and perceived barriers for families in accessing support could be beneficial for developing more accessible and effective approaches to treatment. Furthermore, examining literature on intervention models for childhood anxiety that involve parents or caregivers could assist clinicians in revitalizing their approaches to treatment for anxiety, and may extend the impact of treatment for a disorder that often effects the entire family unit. Therefore, the methodology of the current study was divided into two distinct, but related components.

Study 1) An exploratory analysis using a survey research design on parents of children with anxiety's help-seeking behaviours, facilitators of effective help, and perceived barriers was used to analyze the presence of service gaps within the Southwestern Ontario. It is hypothesized that this questionnaire will show a significant amount of service gaps are present in the Southwestern Ontario for children with anxiety, and indicate that parents are able to identify barriers that prevent their child/children from receiving help for their symptoms of anxiety.

Study 2) A scoping review of relevant literature on interventions for childhood anxiety that primarily focuses on parental/caregiver involvement was completed. This aimed to identify the key therapeutic elements to intervention models for childhood anxiety that provide coaching to parents or are parent-led for effective at-home management of symptoms, presenting an alternative way for delivering services that is not reliant on a relationship between a clinician and child.

Together these components aim to inform the public and practitioners on needs-based services and opportunities for clinical growth that reduces barriers without decreasing efficacy.

Study 1: Questionnaire on Parents' Help-Seeking Experiences for Support for Their Child's Anxiety Symptoms

Materials and methods

Subjects

Participants were parents of anxious children that sought help for their child within Southwestern Ontario. These parents were recruited from anxiety workshops or therapy groups administered by clinicians at the Child and Youth Development Clinic using email invitations, as well as Twitter advertisements. There was a total of 62 respondents to the online survey, Service Use Questionnaire, through Qualtrics XM. Nineteen respondents did not complete the survey. Two additional respondents did not provide consent for data collected from the survey, and 14 respondents indicated that the child they were referring to was above the age of 12 and therefore were removed, as this met part of the exclusionary criteria. Thus, the present paper reports data from 27 participants.

Measures

Parents were asked to complete an online survey entitled, Service Use Questionnaire, which was published by researchers to Qualtrics XM. Participating parents were directed to click on the link included in the invitation email and online posters. This then opened a detailed outline of the study and asked two screening questions: Are you fluent in written English? Is the child you will be referring to for this questionnaire 12 years of age or under? Participants were selected based on linguistic proficiency because parents must be able to read and answer each survey question, and the questions will only be available in English. Parents were required to

have indicated that their child with anxious thoughts, feelings, and behaviours is under the age of 12 because the focus of the current study is children rather than adolescents.

Parents that answered that they are proficient in written English and that their child with anxiety are under the age of 12, were sent to the consent form. Parents indicated consent by clicking an “I agree” option at the end of the form, if parents chose to not participate after reviewing the study and consent information, they could click the 'I disagree' and a thank you page will automatically appear. Following the consent process, parents that did consent were asked to answer open ended questions regarding their child's anxious thoughts, feelings and behaviours. Then parents were asked a series of multiple-choice questions about services they have accessed when concerned about their child’s anxious thoughts, feelings, and behaviours. These questions were modified from the 2014 Ontario Child Health Study’s section on service use (Georgiades et al., 2019). There were additional multiple-choice questions about barriers families may have faced when seeking mental health services for children, or barriers that have stopped families from getting help for their child’s anxiety. The final portion of the questionnaire was an opportunity for parents to give their opinion on whether they feel there is a lack of resources available for children with anxiety. The entirety of the Service Use Questionnaire is included as Appendix A.

Statistics

Originally, Chi Square tests were the chosen statistical measure to compare differences among groups of respondents, however due to the small sample size, assumptions of this test were severely violated and results were not included in the final report.. Instead, the reported data is focused on descriptive statistics and frequency counts from respondents. Frequencies regarding symptomology, services accessed, satisfaction ratings, and barriers and facilitators

identified for receiving help were collected and compared. These were examined across the entire sample, as well as compared through reports provided by parents of children with a diagnosis and parents of children without a diagnosis of anxiety.

Results

Profile of the respondents

Descriptive data on questionnaire respondents, indicated that majority were female with 92.6% identifying as the mother of the child experiencing anxiety symptoms. One respondent indicated that they were the child's father, and another indicated that they were a parent but did not provide their specific role. Within this group, 11 of the 27 were parents of children with a diagnosis, while the additional 16 respondents were parents of children without a diagnosis. Of the parents of children with a diagnosis, 89% had received a diagnosis of Generalized Anxiety Disorder. Other identified anxiety diagnoses included Separation Anxiety Disorder (33%) and Social Anxiety Disorder (22%).

Overall Sample: Symptomology, Services Accessed, and Satisfaction Ratings

The presenting symptomology of anxiety across all participants can be found in Table 1. Symptoms identified by parents were coded into six categories: Physiological, Social, Externalizing, Internalizing, Disengagement, and Separation. Physiological symptoms were defined as symptoms involving or effecting bodily functions (e.g. nausea, insomnia). Social symptoms were defined as symptoms impacting interactions with others in social situations. Externalizing symptoms were defined as behavioural or conduct responses that are outwardly expressed in relation to anxious thoughts or feelings (e.g. outbursts involving yelling or hitting, self-injurious behaviour). Internalizing symptoms were defined as internal thoughts or worries

that are interfering with functioning (i.e. negative self-talk, excessive worries about extreme weather events). Disengagement symptoms were defined as symptoms involving complete withdrawal or avoidance of source of anxious thoughts, feelings, or behaviours (i.e. shutting down to others, not participating in class activities). Finally, separation symptoms were defined as thoughts, feelings, or behaviours that stemmed from one distancing themselves from a source of comfort (i.e. clingy, not wanting to leave parents to go to school, refusing to sleep in own bed). Majority of child being referred to by parents for the questionnaire displayed internalizing symptoms, with almost a third of participants also exhibiting physiological symptoms.

Table 1 Presenting symptomology of anxiety across sample (*n* = 27*)*

Presenting Symptoms of Anxiety	N	%
Internalizing	24	88.9
Physiological	8	29.6
Externalizing	6	22.2
Social	5	18.5
Separation	5	18.5
Disengagement	4	14.8

The frequency of services accessed in the past six months by the families of children with anxious thoughts, feelings, and behaviours were also calculated. All of these frequencies can be found in Table 2. Most parents who completed the questionnaire, indicated that they had reached out to at least one of the agencies listed by researchers (i.e. Vanier Children's Services, Merrymount Family Support and Crisis Centre, Child and Parent Resource Institute, Child and Youth Development Clinic, Children's Mental Health Ontario, Child and Adolescent Mental Health Care Program). These agencies were included in the questionnaire as they are the most widely known for supporting children's mental health in the London, Ontario area. Additionally,

a large percentage of parents had accessed services from their family doctors or mental health professionals aside from the above agencies regarding concerns about their child's anxiety symptoms.

Table 2 Services accessed by parents of children with anxious thoughts, feelings, and behaviours (n = 27) in the past 6 months

Services Accessed	N	%
Community Mental Health Agencies	21	77.8
Family Doctor	19	70.4
Mental Health Professionals	19	70.4
Supplemental Mental Health Agencies	9	33.3
Pediatrician	6	22.2
Alternative Health Care Provider	5	18.5
Walk-In Clinic	3	11.1
Urgent Care/Emergency Room	1	3.7

Satisfaction ratings were also calculated through frequency counts. Table 3 outlines the ratings of satisfaction provided by parents of children with anxiety symptoms for each of the services they had accessed in the past six months.

Table 3 Satisfaction ratings for service accessed in the past 6 months (n = 27)

Services Accessed	**Extremely Helpful**		**Very Helpful**		**Somewhat Helpful**		**A Little Bit Helpful**		**Not At All Helpful**	
	N	%	N	%	N	%	N	%	N	%
Community Agencies	4	14.8	6	22.2	3	11.1	2	7.4	5	18.5
Family Doctor	1	3.7	3	11.1	7	25.9	7	25.9	4	14.8
Mental Health Professionals	3	11.1	11	40.7	2	7.4	2	7.4	1	3.7
Pediatrician	1	3.7	1	3.7	2	7.4	-	-	2	7.4

Alternative Health Care Provider	2	7.4	2	7.4	1	3.7	-	-	-	-
Walk-In Clinic	-	-	-	-	2	7.4	-	-	1	3.7
Urgent Care/Emergency Room	-	-	-	-	-	-	-	-	1	3.7

Comparison of Parent Reports for Children with Anxious Thoughts, Feelings, and Behaviours: Diagnosed and Undiagnosed

The frequency of presenting symptoms of anxiety were re-calculated after splitting the data by diagnosis (i.e. diagnosed and undiagnosed) to understand the diagnostic profiles of each group separately (refer to Table 4). Aside from internalizing symptoms which remained the most prevalent presenting symptom, externalizing and social symptoms of anxiety were prominent in the diagnosed group while physiological and separation symptoms appeared most common in the undiagnosed group.

Table 4 Presenting symptomology of anxiety within diagnosed (*n* = 11) and undiagnosed groups (*n* = 16*)*

	Presenting Symptoms of Anxiety	N	%
Diagnosed	Internalizing	10	90.9
	Physiological	4	36.4
	Externalizing	4	36.4
	Social	3	27.3
	Separation	2	18.2
	Disengagement	2	18.2
	Presenting Symptoms of Anxiety	N	%
Undiagnosed	Internalizing	13	81.3
	Physiological	4	25

Externalizing	2	12.5
Social	2	12.5
Separation	3	18.8
Disengagement	2	12.5

Table 5 outlines the frequencies for services accessed by parents of children with and without a diagnosed to determine service pathways (refer to Table 6). Results indicated that majority of those with a diagnosis, visited a local agency for children's mental health or a private mental health professional when seeking help for their child's anxious thoughts, feelings, and behaviours. Alternatively, a large percentage of those without a diagnosis, visited their family doctor in the past six months with concerns about their child's anxiety symptoms. Satisfaction ratings for each service provider were also analyzed using frequency counts based on diagnosis (refer to Table 7).

Table 5 Services accessed by families of children with a diagnosis (*n* = 11) and without a diagnosis (*n* = 16*)* in the past 6 months

	Services Accessed	N	%
With a diagnosis	Community Mental Health Agencies	10	90.9
	Family Doctor	8	72.7
	Mental Health Professionals	10	90.9
	Supplemental Mental Health Agencies	5	45.5
	Pediatrician	3	27.3
	Alternative Health Care Provider	5	45.5
	Walk-In Clinic	1	9.1
	Urgent Care/Emergency Room	0	0
	Services Accessed	N	%
Without a diagnosis	Community Mental Health Agencies	11	68.8

Family Doctor	11	68.8
Mental Health Professionals	9	43.8
Supplemental Mental Health Agencies	4	25
Pediatrician	3	18.8
Alternative Health Care Provider	0	0
Walk-In Clinic	2	12.5
Urgent Care/Emergency Room	1	6.3

Table 6 Satisfaction ratings for service accessed by families with a diagnosis in the past 6 months (*n* = 11)

Services Accessed	**Extremely Helpful**		**Very Helpful**		**Somewhat Helpful**		**A Little Bit Helpful**		**Not At All Helpful**	
	N	%	N	%	N	%	N	%	N	%
Community Agencies	2	18.2	3	27.3	1	9.1	2	18.2	1	9.1
Family Doctor	1	9.1	2	18.2	5	45.5	1	9.1	-	-
Mental Health Professionals	2	18.2	5	45.5	1	9.1	1	9.1	-	-
Pediatrician	1	9.1	-	-	1	9.1	-	-	1	9.1
Alternative Health Care Provider	2	18.2	2	18.2	1	9.1	-	-	-	-
Walk-In Clinic	-	-	-	-	1	9.1	-	-	-	-
Urgent Care/Emergency Room	-	-	-	-	-	-	-	-	-	-

Table 7 Satisfaction ratings for service accessed by families without a diagnosis in the past 6 months (*n* = 16)

Services Accessed	**Extremely Helpful**	**Very Helpful**	**Somewhat Helpful**	**A Little Bit Helpful**	**Not At All Helpful**

	N	%	N	%	N	%	N	%	N	%
Community Agencies	2	12.5	3	18.8	2	12.5	-	-	4	25
Family Doctor	-	-	1	6.3	2	12.5	6	37.5	4	25
Mental Health Professionals	1	6.3	6	37.5	1	6.3	1	6.3	1	6.3
Pediatrician	-	-	1	6.3	1	6.3	-	-	1	6.3
Alternative Health Care Provider	-	-	-	-	-	-	-	-	-	-
Walk-In Clinic	-	-	-	-	1	6.3	-	-	1	6.3
Urgent Care/Emergency Room	-	-	-	-	-	-	-	-	1	6.3

Facilitators and Barriers to Receiving Help or Resources for Families of Children with Anxiety

The frequency of families with children on a waitlist was calculated for both those with a diagnosis and those without a diagnosis. Results indicated that 33% of respondents have children on a waitlist for services, more specifically, 45% of those with a diagnosis are currently on a waitlist and 25% of those without a diagnosis are currently on a waitlist. The method of payment for services for children's anxious thoughts, feelings, and behaviours was also collects. Over half of parents indicated that they had used health benefits or paid out-of-pocket for services in the past 6 months. In the diagnosis group, 73% of parents had paid for services via these two methods. In the undiagnosed group, 38% of parents had paid for services using health benefits or paying out-of-pocket.

Frequency counts were also used to determine how many parents of children with anxiety symptoms had not sought help for their child in the past 6 months. It was revealed that 56% of

participating parents did not seek help for their child in the past 6 months, with large differences between the diagnosed and undiagnosed groups (refer to Table 8). The primary reason why parents did not seek help for their child's anxious thoughts, feelings, and behaviours was also examined using frequency counts that can be found in Table 9. The two main reasons across all participating parents were that the parents thought they could manage the anxiety symptoms themselves, and the parents did not know where to get help.

Table 8 Help-seeking behaviour reported by parents of children with a diagnosis (n = 11) and without a diagnosis (n = 16) in the past 6 months

	Help-seeking Behaviour	N	%
Diagnosed	Did Seek Help	8	72.7
	Did Not Seek Help	3	27.3
	Help-Seeking Behaviour	N	%
Undiagnosed	Did Seek Help	4	25
	Did Not Seek Help	12	75

Table 9 Primary reason for not seeking help reported by parents of children with a diagnosis (n = 11) and without a diagnosis (n = 16)

	Primary Reason	N	%
Diagnosed	Thought we could manage it ourselves	-	-
	Didn't know where to get help	2	18.2
	Too busy to find help	-	-
	Too hard to schedule	-	-
	Wait for services has too long	-	-
	Didn't think professional help would be of benefit	1	9.1
	Cost was too much	-	-
	Getting there was a problem	-	-
	Afraid of what others would think	-	-

	Child refused to go	-	-
	A different reason than those listed above	-	-

	Primary Reason	N	%
Undiagnosed	Thought we could manage it ourselves	5	31.3
	Didn't know where to get help	1	6.3
	Too busy to find help	-	-
	Too hard to schedule	-	-
	Wait for services has too long	1	6.3
	Didn't think professional help would be of benefit	-	-
	Cost was too much	2	12.5
	Getting there was a problem	-	-
	Afraid of what others would think	-	-
	Child refused to go	1	6.3
	A different reason than those listed above	2	12.5

The parent perspective regarding availability of resources for children with anxious thoughts, feelings, and behaviours was captured in the final open-ended question of the questionnaire. Qualitative responses were coded by researchers for either an opinion of yes there is a lack of resources or no there is not a lack of resources. The overall group statistics indicated that 86% of parents feel there is a lack of resources for children with anxiety symptoms. The distribution of opinions across the diagnosed and undiagnosed groups can be found in Table 10.

Table 10 Opinion on resource availability reported by parents of children with a diagnosis (*n* = 11) and without a diagnosis (*n* = 16*)*

	Opinion on Resource Availability	N	%
Diagnosed	There is a lack of resources	3	27.3
	There is not a lack of resource	-	-

	Opinion on Resource Availability	N	%
Undiagnosed	There is a lack of resources	9	56.3
	There is not a lack of resources	2	12.5

Study 2: Key Elements of Interventions for Children with Anxiety that Incorporate Parents/Caregivers: A Scoping Review

Method

This scoping review was constructed from the research question 'What therapeutic elements are included in parent-led interventions for children with anxiety?' based on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR).

Eligibility criteria

Primary studies on parent-led interventions were the focus for this scoping review, which included peer-reviewed research articles, clinical trials and graduate theses. The following inclusion criteria were used:

1. Children were 13 years of age and under
2. Anxiety must be the primary target for the intervention
3. Intervention must have a parent component (parent-led, parent coaching, parent/child therapy)
4. Published after 2000
5. Written in English

Articles were excluded if they:

1. The information provided regarding the parental component was unclear or missing from the piece of literature
2. Participating children had a comorbid diagnosis of a neurological disorder (e.g. Autism)
3. Throughout the intervention there was therapist-child interaction

Search strategy

A search strategy was devised and performed in the databases PsycINFO, PubMed, and Cochrane Library. The search strategy used 'OR' to combine key terms with proximity operators, then 'AND' was used to combine the combination of key terms to conduct a comprehensive literature search. This search strategy was applied to all three databases, substituting for equivalent terms where the same term was unavailable (see Appendices B, C and D for individual database searches). The final search was conducted on March 18th, 2021.

Study Selection

Duplicates were removed by the first author, who then proceeded to screen titles and abstracts to remove ineligible records. The full texts of remaining records were then screened independently by the first and second authors. The two authors were largely in agreement and discussed any disagreements to reach a consensus. Disagreements mainly involved the articles ambiguity over the primary focus being anxiety. If there was not a diagnostic concern for anxiety or the focus was on an alternative mental health disorder that presented anxious thoughts, feelings, or behaviours the articles were excluded.

Data Extraction

The authors developed two data extraction charts, the first was based on Arksey and O'Malley's (2005) framework and outlined general information regarding the study. A second

chart was developed to highlight common elements of the therapeutic models used in the chosen studies based on Chorpita, Daleiden, and Weisz (2005) common elements coding manuals.

The following data items were extracted from studies for the first chart: (1) date of publication, (2) type of literature, (3) sample size, (4) participant age, (5) diagnostic criterion, (6) time commitment for intervention, (7) method of intervention delivery, (8) measures included, (9) effectiveness of the intervention. The following data items were extracted from studies for the second chart: (1) psychoeducation, (2) exposure, (3) relaxation, (4) problem solving, (5) parental anxiety monitoring, (6) parent praise, (7) reinforcement, (8) cognitive technique, (9) treatment sequence.

Data Synthesis

The data was compiled into a single chart built on Microsoft Word 2021 for coding and categorization. Descriptive statistics were calculated to summarize data, while frequencies and percentages were utilized to describe nominal data.

Results

Search and selection of studies

The original search conducted in March 2021 yielded 74 potentially relevant citations. After removal due to duplication, 56 studies' titles and abstracts were screened for relevance. This resulted in the full-text of 22 articles for review. After reviewing the full text of these articles, seven were included in the final analysis. The flow of articles through identification to final inclusion is represented in Figure 1.

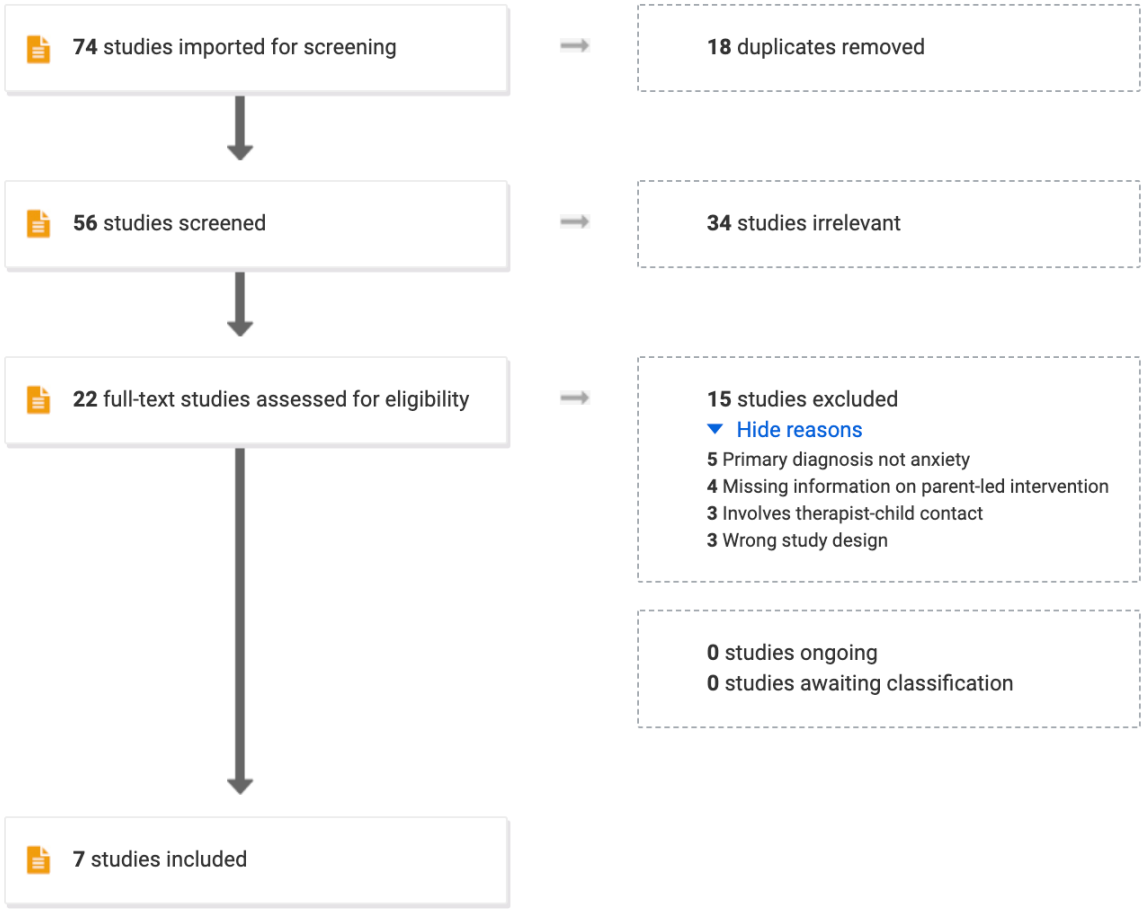

Figure 1 Study selection process.

Study Characteristics

Of the seven selected studies, five were peer-reviewed research articles, one was a registered clinical trial and the final was a Masters thesis. The majority were based in the United States of America (57%), followed by Iran (14%), the United Kingdom (14%), and the Netherlands (14%). Despite the inclusionary criteria of publication after 2000, all studies included in the final analysis were published between 2012 and 2020 suggesting a surge in research on parent-led interventions for childhood anxiety in the past eight years. Participating

children within the selected studies ranged in age from three to thirteen, with the mean age of 7.4 years.

The first author identified five areas of interest from the charted data on parent-led interventions for childhood anxiety; (1) diagnostic criteria, (2) therapeutic elements, (3) time commitment, (4) method of delivery, and (5) effectiveness of intervention.

Diagnostic criteria

The diagnostic criteria for each study in the final analysis can be found in Table 11. The frequency of intervention studies requiring an anxiety diagnosis was calculated, and revealed that 42.8% required children to have a primary anxiety diagnosis based on the DSM-IV-TR. An additional, 42.8% required children to have reached the diagnostic threshold for an anxiety disorder but a diagnosis had not yet been assigned or the diagnostic tool was not disclosed. For example, van der Sluis and colleagues (2012) recruited participants based on concerns of anxiety at the level of disorder from their general practitioner or health care professional. The final 14.3% of studies listed alternative anxiety concerns but did not require a diagnosis or diagnostic levels. More specifically, Novick et al. (2019) studied families of preschool aged children that scored in the 85th percentile or above on the Behavioural Inhibition Questionnaire. Further, in the selected studies, 85.7% would not classify as early intervention methods based on the diagnostic criteria outlined by the researchers.

Table 11 Characteristics of selected studies (n = 7) and included interventions (n = 9) for children's anxiety

Author & Date **Article Type**	**Sample Size & Participant Age**	**Diagnostic Criterion**	**Time Commitment for Intervention**	**Method of Intervention Delivery**	**Measures Included**	**Effectiveness**

Salari, Shahrivar, Mahmoudi-Gharaei, Shirazi, and Sepasi **2018** **(Research Article)**	N = 42 Parents with children ages 6 - 12	Primary anxiety diagnosis (DSM-IV-TR): generalized anxiety disorder (GAD), separation anxiety disorder (SAD), social phobia, or specific phobia	6 weeks; two-hour weekly sessions	In-person, group sessions delivered by a child psychiatrist	K-SADS-PL RCMA CDI SDQ - Home Version DASS CGAS GRAF Assessment of Consumer Satisfaction	Child: Decreased emotional problems Parents: High satisfaction rates, efficient in controlling their children's anxiety
Hiller, Apetroaia, Clarke, Hughes, Orchard, Parkinson b, and Creswell **2016** **(Research Article)**	N = 60 Parents with children ages 7 - 12	Primary diagnosis of a DSM-IV-TR anxiety disorder; and the parent was the primary carer, and themselves experienced high anxiety	8 weeks; 6 face to face (45-60 mins) and 2 telephone review sessions (15 mins).	Delivered through a self-help book, in-person and telephone therapist sessions Two conditions: 1) Brief Guided Parent Delivered CBT (GPD-CBT) for child anxiety	ADIS-C/P CGI-I SCAA-C/P Parental responses to children's negative emotions – rated on a 0-10 Likert scale Parental and child	Parents: Improved tolerance of child's anxiety Child: Reduced children's anxious responses results parents anxious responses

				disorders 2) GPD-CBT incorporating novel strategies designed to improve parental tolerance of children's emotions (TCNE)	behaviour was coded using the scheme developed by Murray et al. (2012) and adapted by Creswell et al. (2012)	
van der Sluis van der Bruggen Brechman-Toussaint, Thissen and Bögels 2012 (Research Article)	N = 26 Parents of children ages 4-7	Identified by their general practitioner or health care professional as having anxiety concerns at the level of disorder	8 weeks; First 4: 2-hour long sessions for 4 consecutive weeks Next four weeks: 20 mins each week Total time: 9 hours and 30 mins	Four group in-person sessions; Four individual telephone consultation	KFQ SCAS-P BIQ Social Competence and Behavior Evaluation-20 for preschoolers CDQ	Child: Decreases in child anxiety symptoms, behavioural inhibition, and internalizing problems Parent: Positive changes in parenting, decreased reinforcement for dependency to manage an anxious

						situation for their child
Comer, Puliafico, Aschenbrand, McKnight, Robin, Goldfine, and Albano **2012** **(Research Article)**	N = 9 Parents of children ages 4-8	Diagnostic criteria for a principal anxiety disorder (could have additional presenting diagnoses of lower clinical severity than their presenting anxiety)	12 sessions	In-person sessions	ADIS-C/P CGAS	Child: All but one participating families showed full diagnostic improvements, and all but one showed meaningful functional improvements
Lebowitz, Omer, Hermes and Scahill **2014** **(Research Article)**	N = 10 Parents of children ages 9 to 13,	Primary DSM-IV-TR diagnosis of generalized anxiety disorder, separation anxiety disorder, social phobia or OCD, child was offered opportunity to participate in individual CBT and refused, or	10-12 weekly sessions	In-person sessions	ADIS - P PARS CGI FASA CBCL - Parent Report CSQ	Child: CGI-Improvement scale found 60% scored very much improved or much improved, 40% scored minimally improved

		child refused to attend the assessment per parent report Families had significant accommodating behaviour				
Comer 2020 (Registered Clinical Trial)	N = 40 Families of children ages 3-8	Diagnosis of social anxiety disorder	12 sessions	Webcam observation and bug-in-the-ear coaching – videoconferencing internet delivered format	CGI – S/I CGAS CAIS Family BAS FACLIS FASA Working Alliance Inventory CSQ-8 ADIS-C/P SCAS-P	Results are currently not available to the public
Novick, Smith, Barstead, Danko, Rubin, Druskin, Badders,	N =151 Families of children ages 3-5	Scored in the 85th percentile or above on the Behavioural Inhibition	6 sessions 2 hours each, totaling 12 hours	Telephone screening, in-person group sessions	ADIS-P ADIS-5L Homework completion using	Parent: Those with more anxious children found the parent-only

Dougherty, and Chronis-Tuscano 2019 (Master of Science Thesis)	Questionnaire and < 15 on the Social Communication Questionnaire (as a screen for ASD)	a single-item on a 7-point Likert scale 7-point Likert-scale satisfaction survey	intervention more satisfying Child: Age impacted the amount of at-home therapeutic work that was completed; older children reported completing more than younger children

Therapeutic elements

Therapeutic elements were charted when reviewing the full text of selected studies, with eight elements emerging as key common factors of the reviewed therapeutic models (refer to Table 12). The first element outlined was psychoeducation, which can be defined in relation to both parents and children. For parents, psychoeducation involves Teaching parents the nature of anxiety and its expression in youth, how treatment plan addresses anxiety, how to be involved in teaching new skills, and managing expectations (Chorpita & Weisz, 2009). Whereas for children, psychoeducation teaches children how anxiety works, how anxiety can be good, possible anxiety alarms, the rationale for exposure practice, and the importance of practice and monitoring (Chorpita & Weisz, 2009). Importantly, all of the selected studies included some form of psychoeducation, with majority focusing on parent psychoeducation.

The second element was exposure, which Chorpita and Weisz (2009) define as slowly exposing the child to feared items or situations so that over the course of time, the child shows decreased feared ratings for the items or situations. Exposure was the second most commonly used therapeutic element, as it was present in 85.7% of the interventions outlined in the selected studies.

Thirdly, relaxation is defined as training on calming techniques that could include recognizing tense muscles in the body and attempting to relax them, taking slow, deep breaths and exhaling slowly, and/or picturing a favourite peaceful place (Chorpita & Weisz, 2009). This therapeutic element was incorporated in the 28.6% of interventions in the selected studies. Meanwhile, problem solving, referred to as the fourth therapeutic element by authors, was used in 71.4% of interventions. It is defined as techniques, discussions, or activities designed to bring about solutions to targeted problems, usually with the intention of imparting a skill for how to approach and solve future problems in a similar manner (Chorpita, Daledien & Weisz, 2005).

Parental anxiety self-monitoring was the fifth therapeutic component identified by authors. The following definition was created by authors while charting data to capture the unique element of parent-led interventions that involves identifying parents' behaviours and reactions regarding their child's anxious thoughts, feelings, and behaviours. Parental anxiety self-monitoring is the opportunity for parents to access tools or implement techniques that can increase self-awareness of how one's thoughts, feelings, and behaviours may be influencing the reaction of another, specifically their child. Of the articles reviewed, 42.8% included this therapeutic element. An additional 42.8% included parent praise as a key element of parent-led interventions for children with anxiety. Parent praise is defined as the training of parents or others involved in the social ecology of the child in the administration of social rewards to

promote desired behaviours. This can involve training parents to praise, encourage, give affection or physical proximity (Chorpita, Daledien & Weisz, 2005).

The seventh and eighth therapeutic elements are reinforcement and cognitive techniques. Reinforcement in parent-led interventions is defined by authors as parental behaviour used to strengthen desired beliefs or patterns of behaviour demonstrated by the child, while cognitive techniques were any techniques designed to alter interpretation of events through examination of the child's reported thoughts, typically through the generation and rehearsal of alternative counter-statements. This can sometimes be accompanied by the exercises designed to comparatively test the validity of the original thoughts and the alternative thoughts through the gathering or review of relevant information (Chorpita, Daledien & Weiss, 2005). These elements, however, were used by only 28.5% of the selected studies.

Additional frequency data was taken on the number of different therapeutic elements that were included in each intervention (e.g. psychoeducation (PSYCED), exposure (EXP), relaxation (RLX), problem solving (PS), parental anxiety self-monitoring (PASM), parent praise (PP), reinforcement (RM), cognitive techniques (CT)), and the sequence of their delivery. Within the seven selected studies nine independent intervention models were identified. Of these intervention models, 22.2% included 6 and 33.3% included 4 of the therapeutic elements outlined above. However, majority of interventions described in the selected studies included three elements (44.4%). A pattern of data emerged regarding the sequence of treatment delivery for the common elements, as psychoeducation was the first included element across 88.8% of reviewed interventions.

Table 12 Therapeutic elements outlined in the selected studies and the sequence in which these elements are introduced

Article & Date	PSYCED (1)	EXP (2)	RLX (3)	PS (4)	PASM (5)	PP (6)	RM (7)	CT (8)	Treatment Sequence
Salari et al. (2018)	X	X	X	X		X	X		1,3,4,2,6,7
Hiller et al. (2016)	X	X	X	X	X			X	Condition 1: 1,8,2,4 Condition 2: 1,8,5,2,3,4
van der Sluis et al. (2012)	X	X		X	X				1,4,2,5
Comer et al. (2012)	X	X				X			1,2,6
Lebowitz et al. (2014)	X			X*				X	1,4,8
Comer (2020)	X	X				X			1,2,6
Novick et al. (2019)	X	X		X	X		X		Condition 1: 7,2,4 Condition 2: 1,7,2,5

*focused on family accommodation; changing parenting behaviour/parent-oriented actions rather than guiding the child through collaborative problem solving and exposure processes

Time commitment

The time commitment of parent-led interventions included in selected studies varied widely in both the time of each session, as well as the overall process (refer to Table 11). Three of the selected studies described weekly two-hour sessions, with only one describing weekly sessions that would last 45 to 60 minutes. An additional two studies outlined separate weekly

sessions that would be 15 to 20 minutes in length. Importantly, these did not happen in isolation rather these sessions occurred towards the middle to end of the intervention following preliminary, prolonged weekly sessions. Notably, 42.8 % of articles did not disclose the length of weekly sessions, and therefore, could not be reported within these statistics.

All of the selected articles did however include the number of sessions required for completion of the relevant intervention. This ranged from six to twelve sessions; 28.6% required six, 28.6% required eight, and 42.8% required twelve.

Method of delivery

Categories of method delivery were determined through charting data from selected studies (see Table 11). Three categories were created to capture the multiple ways the intervention training was delivered to parents. The first category was in-person, this included group sessions or individual sessions. Of the selected studies, 85.7% included an in-person component, however only 42.8% relied exclusively on in-person methods. The second category was telepsychology, a method of treatment delivery that relies on telephone or video conferencing technology. Telepsychology methods were used in 57.1% of the selected studies' interventions. More specifically, 75% of the studies with telepsychology methods used telephones for consultation and the remaining 25% used internet-delivered videoconferencing. The third and final category was resources for reference. This was created due to a unique aspect of the study conducted by Hiller et al. (2016). The intervention involved parents receiving a self-help book to read, review, and reference throughout the other components of the intervention and to assist them in monitoring their own anxious thoughts, feelings, and behaviours.

Effectiveness of interventions

The effectiveness of interventions outlined in the selected studies were categorized into two groups; changes in child anxiety-related behaviour and changes in parent anxiety-related behaviour such as reactivity and accommodation. It is important to note that one study, Comer (2020), was excluded from these results as the findings and conclusion were not yet available to the public. Of the six studies with available results, 83.3% found changes in child anxiety-related behaviour. More specifically, studies reported decreased emotional problems, behavioural inhibition, internalizing problems, and reductions in anxious responses to stressors. Further, studies found significant diagnostic and functional improvements determined by independent evaluators and the CGI Improvement Scale.

Parent anxiety-related behaviour was reported in 66.7% of selected studies. This included parents reporting improved anxiety management techniques and increased tolerance for children's anxiety. There were also results indicating decreased reinforcement for dependency, and overall positive changes in parenting for children who exhibit anxious thoughts, feelings, and behaviours. More detailed reports of the effectiveness of interventions can be found in Table 11.

Chapter 3: Discussion

The present study examined the authentic experiences of parents of children with anxiety before referencing literature on interventions that allow parents to assist in reducing their child's anxiety symptoms. More specially, parent perspectives on help-seeking behaviours and resource availability for children with anxiety were gathered through an online questionnaire. This questionnaire reported the experiences of the entire sample, but also examined if there were

differences present based on whether the child had received a diagnosis of anxiety disorder or had not yet received a formal diagnosis. Then to extend the literature a scoping review was completed which evaluated literature on parent-led interventions to discover what therapeutic elements are most commonly included in this type of treatment method for children with anxiety. This topic was explored as this method of treatment has been a proposed solution to many of the barriers that delay families from accessing mental health services. Findings, implications for community and clinical application, and recommendations for future directions are discussed below.

In support of our hypothesis on parent help-seeking behaviours, the questionnaire revealed that parents identified barriers to receiving help for their children's anxiety. Majority of barriers were due to a lack of knowledge rather than a lack of resources, such as transportation or cost. For example, many parents, especially those of children without a diagnosis, are still not seeking help because they thought they could manage the child's symptoms themselves. This finding is contrary to previous literature as Comeau and colleagues (2019) found that there was an increase in perceived need for professional help between 1983 and 2014. Additionally, they reported that help-seeking behaviours were more often motivated by general concerns from parents, teachers, or children themselves than the presence of a diagnosis. Alternatively, though, the current study's results regarding parent management of anxiety symptoms could be explained by the increase in anti-stigma and mental health awareness campaigns in the last three decades (Comeau et al., 2019). Despite the increase in awareness, the other most common reason for parents not seeking help, whether their child had a diagnosis or not, was that they did not know where to go to get help. This algins with the later finding that majority of the overall sample felt there is a lack of reliable resources available to parents/families for children's anxiety.

Although results revealed parents' ability to identify barriers to help, results did not support the hypothesis that significant service gaps are present in the London, Ontario community. Majority of parents in the last 6 months had reached out to at least one service provider regarding concerns about their child's anxious thoughts, feelings, or behaviours. This finding aligns with the results from the 2014 Ontario Child Health Study, which found 60% of parents to have contacted one or more service providers in the six-months prior to completing the survey (Georgiades et al., 2019). Interestingly though, parents of children without a diagnosis rated the family doctor as less helpful than those with a diagnosis. This difference is supported by literature that suggests a child's diagnosis and billing codes are often the only information recorded on administrative records regarding children's mental health in Ontario (Boyle et al., 2019). Further, Boyle and colleagues (2019) argue that the limited follow-up information may impact treatment delivery from general practitioners, and this was supported by the present study's results as the pattern of dissatisfaction for services from family doctors was not reported by parents of children with a diagnosis.

Notably, there was no difference in satisfaction ratings for mental health professionals from parents of children with and without a diagnosis, with majority indicating that these service providers were very helpful or extremely helpful. This is likely due to the more comprehensive case notes that are taken by this group of professionals. However, literature does suggest that to ensure more consistent care and optimize treatment pathways, provisions be put in place across agencies in regard to measures of children's mental health. This approach will allow information to be referenced system-wide, reducing the chances of practitioners missing information regarding characteristics of the individuals seeking help and the effects of the treatment options given to the families of these children (Boyle et al., 2019).

Although there are advancements to be made in terms of consistency in reporting mental health concerns for children between professionals, results showed regularity among therapeutic elements for parent-led interventions which has the potential to assist clinicians in adopting this treatment methodology. The scoping review revealed that psychoeducation was used in all parent-led interventions outlined in the selected studies. Further, psychoeducation was offered as the first therapeutic element in majority of treatment models. This is partially in line with previous literature, as Chorpita and Daleiden (2009) found both psychoeducation for children and psychoeducation for parents to be in the top ten of included elements across a larger scope of treatment methods. Nevertheless, the current study exclusively examined parent-led interventions that included no therapist-child interactions. This difference in focus may explain the unique findings regarding psychoeducation for parents in the current project, as the findings highlight the benefits of psychoeducation as an initial step in assisting parents looking to independently manage their child's anxiety symptoms. Further, psychoeducation is included as an element in the Modular Approach to Therapy for Children with Anxiety, Depression, Trauma, or Conduct Problems (MATCH-ADTC). This document provides guidelines to clinicians on evidence-based practices for specific mental health disorders (Chorpita & Weisz, 2009), which reinforces the importance of psychoeducation within interventions for childhood anxiety.

Exposure was also identified as a common therapeutic element among parent-led interventions in the selected studies. This finding more closely aligns with previous research, as exposure has been found to be the most common element in reviewed treatment methods for childhood anxiety (Chorpita & Daleiden, 2009). Exposure, similar to psychoeducation, is also identified as a key element in the MATCH-ADTC manual through the introduction of a fear ladder. Fear ladders are a planning tool that can assist children in expressing their level of

worry/nervousness when participating in exposure-based activities and/or anxiety-inducing situations. The parallels in common elements from the current scoping review and the MATCH-ADTC manual suggests that the modular approaches that are traditionally therapist-led could be adapted for parent-led interventions (Chorpita & Weisz, 2009). Additionally, the finding that exposure is a common element in parent-led interventions is promising as at-home practice and real-world opportunities increases the child's ability for transference of skills and positively impacts remission rates (Chiu et al., 2013).

Notably the single study that did not list exposure examined the SPACE program, which focuses on combating family accommodation to reduce a child's anxiety symptoms (Lebowitz et al., 2014). This approach is a recent development in the treatment of childhood anxiety, and therefore presents innovative methodologies that do not fit the traditional definitions of common therapeutic elements in parent-led interventions. For example, problem solving was present in the SPACE program, but rather than discussing ways to change the child's thoughts or behaviours and implementing a collaborative approach to overcome a challenging situation, the problem-solving conversations between the coaching clinician and parents would focus on changing the parenting behaviour or parent-oriented actions. Additionally, this intervention was one of only two that included cognitive techniques. This is likely due to the parents being coached on how to modify their own thoughts, feelings, and behaviours, rather than being coached on treatment delivery for their child's anxiety. Cognitive techniques are not specific to parent-led interventions though, and are listed as common elements in many other methods of treatment for childhood anxiety (Chorpita & Daleiden, 2009).

A therapeutic element that does appear to be specific to parent-led interventions is parental anxiety self-monitoring. Literature has shown strong familial aggregation for anxiety

disorders with some evidence for genetic factors (Gorwood, 1998), and therefore when treating a child's anxiety it is not uncommon for parental anxiety to arise. However, from the information examined from the selected studies it appears that management of parental reactions and tolerance of the child's anxiety symptoms is important to the efficacy of a parent-led intervention. This is an important consideration for clinicians looking to implement this treatment model and may explain the exploration of parent-only treatment models such as the SPACE program in recent years.

Clinical practice in children's mental health has recently prioritized brief intervention models to reduce the time commitments required of families and shifted to telepsychology delivery. Due to these recent expansions in children's mental health services, the length and method of delivery for each intervention included in selected studies was considered. The majority of the interventions required at least 8 weeks commitment from families, however one study only required 6 weeks and showed promising reductions in children's anxiety symptoms. This result is beneficial for both families and clinicians as brief parent-led models such as these may be a cost- and time-effective approach to treatment. Also, it is notable that brief methods of treatment may be ideal for early interventions where children exhibiting anxiety symptoms but have not yet reached diagnostic criteria (Creswell et al., 2017).

As for the methods of delivery, there is a clear trend in the inclusion of telephone or video conferencing for parent-led interventions in the past 10 years. This is a beneficial development as telepsychology may remove barriers to mental health services for rural families, families limited by transportation, and even those limited for time as there is no travel requirement (Nelson & Bui, 2010). Interestingly though, none of the reviewed interventions used

telepsychology methods exclusively. If telepsychology was included, it was typically following in-person sessions or only as a method of screening participants.

Limitations and Future Directions

The current study had several notable limitations, including the impact of the COVID-19 pandemic on respondent rate for the questionnaire. This is believed to be related directly to another limitation which is the small sample size. Not only was there a significant amount of uncertainty and concern throughout society over the past year, but parents were also overwhelmed with responsibilities (Miller, 2021). Additionally, limited demographic information was collected in regard to the parents who completed the questionnaire and therefore factors such as socio-economic status, location within the London, Ontario area, number of children within the household, and parent occupation could not be considered when examining answers regarding services accessed, satisfaction rates, and opinions on resource availability. Since these factors can influence the availability and efficacy of mental health services results may be skewed (Towe-Goodman et al., 2015; Collins et al, 2004; Nelson & Bui, 2010). Future research should aim to collect data from a larger sample size with more demographic information to provide clearer insights into how SES and familial factors may influence access to services and resources for children's anxiety, above what has been determined from the current project.

Limitations for the scoping review included the specificity for disorder criteria and the age group examined. Comorbidity rates of anxiety disorders are high, especially the diagnosis of generalized anxiety disorder. Therefore, it is common to have research that examines two or more disorders in one study. However, for the purposes of this project there needed to be a primary focus on anxiety for the intervention which eliminated additional research on other mental health and developmental neurological disorders. Further, a limitation to the selected

studies is that all but one had participating children that had received an anxiety disorder diagnosis or met diagnostic criteria for a diagnosis. Thus, conclusions cannot be confidently drawn on the effectiveness of early, parent-led interventions for children's anxiety, limiting findings to families of children seeking Tier-3 help. Future research should compare the elements of parent-led interventions that focus primarily on anxiety to parent-led interventions of children with comorbid diagnosis to see if the treatment method divulges any similarities; while also examining early intervention models that are parent-led to see if these methods would be beneficial for Tier-1 children where concerns are not as serious and immediate.

Additionally, the age group was a limitation for examining literature on parent-led interventions as many articles arose that focused on youth with anxiety. This again would be a good opportunity for future research, as youth have more autonomy in their care and as was shown in the current project's results the therapeutic elements for older age ranges may differ from those used with elementary aged children (Lebowitz et al., 2014). Also, the role and approach parents may take in a parent-led interventions for youth may differ from that of a parent to a 7-, 8-, or 9-year-old with anxiety symptoms; this would worth exploring as it may be a valuable contribution to the growing and evolving literature on parent-led interventions for young people with anxiety.

Conclusion

It is clear that there are still significant needs being expressed by families of children with anxiety, and improvements to be made in treatment pathways that reduce barriers and optimize success. This study attempted to understand the help-seeking behaviours of parents to provide insight to service-providers in the London, Ontario area. This project is also one of the first to examine the therapeutic elements involved in a specific method of intervention for children's

anxiety, while identifying key parts that make an effective parent-led treatment model. The individual findings from each component suggest that there is still a value placed on diagnosis in terms of care; with differences in satisfaction ratings from parents of children without a diagnosis compared to those with for certain service providers, and almost all parent-led interventions requiring a diagnosis or symptomology that meets diagnostic criteria. The collective findings also emphasize the value in accessible treatment options that promote parent's knowledge acquisition and understanding of their child's anxious thoughts, feelings, and behaviours. Furthermore, this project presents data that underscores the positive influence parents can have when they advocate, participate, and even lead the mental health care for their child. Future research should continue exploring ways to make parents of children with anxiety feel confident in the care their child receives and expand upon the innovative techniques being introduced within interventions for childhood anxiety.

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Appendix A

Service Use Questionnaire

SERVICE USE QUESTIONNAIRE

This set of questions asks about professional care or help for your child. Some of the questions ask about child mental health concerns. These concerns refer to problems' children might have with anxious thoughts, feelings, or behaviours. In the following questions, when it says 'you', please think of everyone who is involved in your child's care. Some of the following questions have been adapted from the Ontario Child Heath Study.

SYMPTOMS

1. What symptoms does your child currently exhibit in relation to anxious thoughts, feeling, or behaviours?

1a) How much were these anxious thoughts, feelings, or behaviours getting in the way of daily functioning?

2. What are your concerns about your child's anxiety?

2a) Are there specific problems you are seeking help for?

PRIMARY CARE

3. In your family, when you have concerns about your child's health, who besides yourself, takes your child to appointments, or talks to professionals about him?

01 Child's Mother

02 Child's Father

03 Child's Grandmother

04 Child's Grandfather

05 Other Specify

06 No one

FAMILY DOCTORS & PEDIATRICIANS

4. Does your child have a family doctor?

01 Yes

02 No (Go to Question 6)

5. In the past 6 months, how many times in total did you or your child see or talk to your family doctor about any concerns about their health?

_____times

6. At (this/any of these) visit(s), did you discuss any concerns about your child's mental health?

01 Yes

02 No (Go to Question 6)

7. In response to these concerns, which of the following did this family doctor do? Mark all that apply.

1 Prescribed a medication

2 Suggested strategies on how to deal with the problem

3 Provided reassurance and support but no specific strategies

4 Made a referral

5 Nothing

6 Other, specify_____

8. To what extent did you find this family doctor's response helpful? Would you say…

01 Extremely helpful

02 Very helpful

03 Somewhat helpful

04 A little bit helpful

05 Not at all helpful

9. Does your child have a pediatrician?

01 Yes

02 No (Go to OTHER PERSON OR PLACE FOR REGULAR HEALTH CARE)

10. In the past 6 months, how many times in total did you or your child see or talk to this pediatrician about any concerns about his health?

_____times

11. At (this/any of these) visit(s), did you discuss any concerns about your child's mental health?

01 Yes

02 No (Go to OTHER PERSON OR PLACE FOR REGULAR HEALTH CARE)

12. In response to these concerns, which of the following did this pediatrician do? Mark all that apply.

1 Prescribed a medication

2 Suggested strategies on how to deal with the problem

3 Provided reassurance and support but no specific strategies

4 Made a referral

5 Nothing

6 Other, specify_____

13. To what extent did you find this pediatrician's response helpful? Would you say…

01 Extremely helpful

02 Very helpful

03 Somewhat helpful

04 A little bit helpful

05 Not at all helpful

OTHER PERSON OR PLACE FOR REGULAR HEALTH CARE

14. Other than a family physician or pediatrician is there another health care provider from which your child receives ongoing or regular health care?

01 Yes

02 No (Go to WALK-IN CLINIC)

15. From which type of health-care provider does your child receive this care? Is it:

01 a general practitioner

02 another type of physician_____

03 a nurse

04 another health professional _____

16. In the past 6 months, how many times in total did you or your child see or talk to this healthcare professional about any concerns about their health?

01 Yes

02 No

17. At (this/any of these) visit(s), did you discuss any concerns about your child's mental health?

01 Yes

02 No (Go to WALK-IN CLINIC)

18. To what extent did you find this health professional's response to these concerns helpful? Would you say…

01 Extremely helpful

02 Very helpful

03 Somewhat helpful

04 A little bit helpful

05 Not at all helpful

WALK-IN CLINIC

19. In the past 6 months, how many times in total did you or your child go to a walk-in clinic for any concerns about his health?

_____times

20. Did any of these visits involve concerns about your child's mental health?

01 Yes

02 No (Go to URGENT CARE AND EMERGENCY ROOM)

21. To what extent did you find this health professional's response to these concerns helpful? Would you say…

01 Extremely helpful

02 Very helpful

03 Somewhat helpful

04 A little bit helpful

05 Not at all helpful

URGENT CARE AND EMERGENCY ROOM

22. In the past 6 months, how many times in total did your child go to an urgent care facility or hospital emergency room for any concerns about his health?

_____times

23. Did any of these visits involve concerns about your child's mental health?

01 Yes

02 No (Go to SPECIALIZED MENTAL HEALTH AND ADDICTIONS SERVICES)

24. To what extent did you find this health professional's response to these concerns helpful? Would you say…

01 Extremely helpful

02 Very helpful

03 Somewhat helpful

04 A little bit helpful

05 Not at all helpful

SPECIALIZED MENTAL HEALTH AND ADDICTIONS SERVICES

25. In the past 6 months, did you, another family member, or your child see or talk to anyone from these agencies because of concerns about your child's mental health. To remind you, these concerns refer to problems children might have with their emotions, attention or behaviour. Mark Yes or No with an X.

	Institution	Yes	No
A	Vanier Children's Services		
B	Merrymount Family Support and Crisis Centre		
C	Child and Parent Resource Institute		
D	Child and Youth Development Clinic		
E	Children's Mental Health Ontario		
F	Child and Adolescent Mental Health Care Program (Children's Hospital LHSC)		

26. In the past 6 months, did you, another family member, or your child see or talk to anyone from any other mental health agency because of concerns about your child's mental health?

01 Yes Please specify_____

02 No (all No to Question 1 & Question 2, go to HELP FROM INDIVIDUAL MENTAL HEALTH PROVIDERS)

27. In the past 6 months, how many times in total did you, another family member or your child see or talk to anyone from (this agency/these agencies) about your concerns?

_____times

0 times (Go to Question 5)

28. To what extent do you feel that the response of (this agency/these agencies) to these concerns was helpful? Would you say

01 Extremely helpful

02 Very helpful

03 Somewhat helpful

04 A little bit helpful

05 Not at all helpful

29. Are you currently on a waitlist for any services?

01 Yes

02 No

30. Have you ever stopped your contact with (this agency/these agencies) because: Mark Yes or No with an X.

	Yes	No
The waitlist was too long		
The service was not helping		
Transportation problems		
Scheduling problems		
My child refused to go		
Some other reason		

HELP FROM INDIVIDUAL MENTAL HEALTH PROVIDERS

31. In the past 6 months, have you or your child seen any of the following types of health-care providers because of concerns about your child's mental health? Mark Yes or No with an X.

A Psychologist	Yes	No
A Psychiatrist		
A Social Worker		
Some other type of counsellor? Specify:_____		

32. To what extent do you feel that the response to your concerns about your child by (this psychiatrist/this psychologist/this social worker/this other type of counsellor was helpful?

01 Extremely helpful

02 Very helpful

03 Somewhat helpful

04 A little bit helpful

05 Not at all helpful

33. In the past 6 months, did you ever have to use your health benefits or pay out-of-pocket to any mental health provider to get help for your child's mental health?

01 Yes

02 No

34. In the past 6 months, have you ever obtained help or advice from the following sources due to concerns regarding your child's mental health?

Family member or relative	Yes	No
Friend or partner		
Teacher or other adult at school		
Phone helpline or crisis hotline		
Internet		
A minister, priest, rabbi, Imam, or other spiritual leader		

Naturopath, herbalist or alternative practitioner		
Some other person or place		

PERCIEVED BARRIERS

35. In the past 6 months was there ever a time when you felt your child might need professional help for any mental health problems but you did not seek help?

01 Yes 02 No (END THE QUESTIONNAIRE)

36. Why did you not seek help? Circle all that apply.

01 I thought we could manage it ourselves

02 I didn't know where to get help

03 I never got around to it (e.g., too busy)

04 It would have been too hard to schedule

05 I tried but the wait was too long

06 I didn't think professional help would do any good

07 It was going to cost too much 08 Getting there was a problem

09 I was afraid of what others would think of me or my child

10 My child refused to go

11 Other - Specify _____

37. What was the main reason you did not seek help? Circle only one option.

01 I thought we could manage it ourselves

02 I didn't know where to get help

03 I never got around to it (e.g., too busy)

04 It would have been too hard to schedule

05 I tried but the wait was too long

06 I didn't think professional help would do any good

07 It was going to cost too much

08 Getting there was a problem

09 I was afraid of what others would think of me or my child

10 My child refused to go

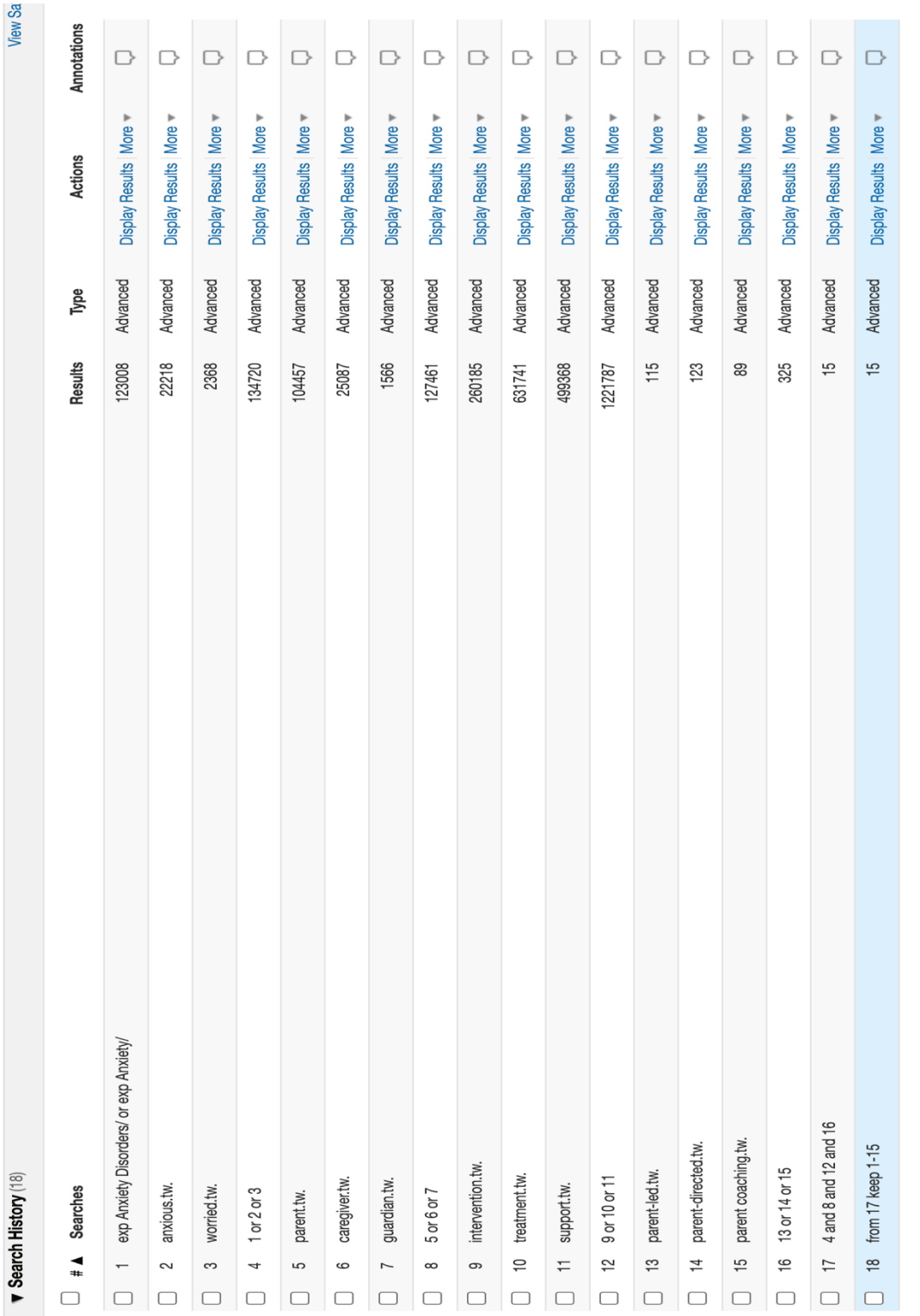
11 Other - Specify _____

AVAILABILITY OF RESOURCES

38. Based on you experience as a caregiver of a child with anxiety, do you feel there is a lack of resources available to support children's anxiety?

Appendix B

Search terms and input sequence for PsychInfo



▼ Search History (18) View Sa

# ▲	Searches	Results	Type	Actions	Annotations
1	exp Anxiety Disorders/ or exp Anxiety/	123008	Advanced	Display Results More	
2	anxious.tw.	22218	Advanced	Display Results More	
3	worried.tw.	2368	Advanced	Display Results More	
4	1 or 2 or 3	134720	Advanced	Display Results More	
5	parent.tw.	104457	Advanced	Display Results More	
6	caregiver.tw.	25087	Advanced	Display Results More	
7	guardian.tw.	1566	Advanced	Display Results More	
8	5 or 6 or 7	127461	Advanced	Display Results More	
9	intervention.tw.	260185	Advanced	Display Results More	
10	treatment.tw.	631741	Advanced	Display Results More	
11	support.tw.	499368	Advanced	Display Results More	
12	9 or 10 or 11	1221787	Advanced	Display Results More	
13	parent-led.tw.	115	Advanced	Display Results More	
14	parent-directed.tw.	123	Advanced	Display Results More	
15	parent coaching.tw.	89	Advanced	Display Results More	
16	13 or 14 or 15	325	Advanced	Display Results More	
17	4 and 8 and 12 and 16	15	Advanced	Display Results More	
18	from 17 keep 1-15	15	Advanced	Display Results More	

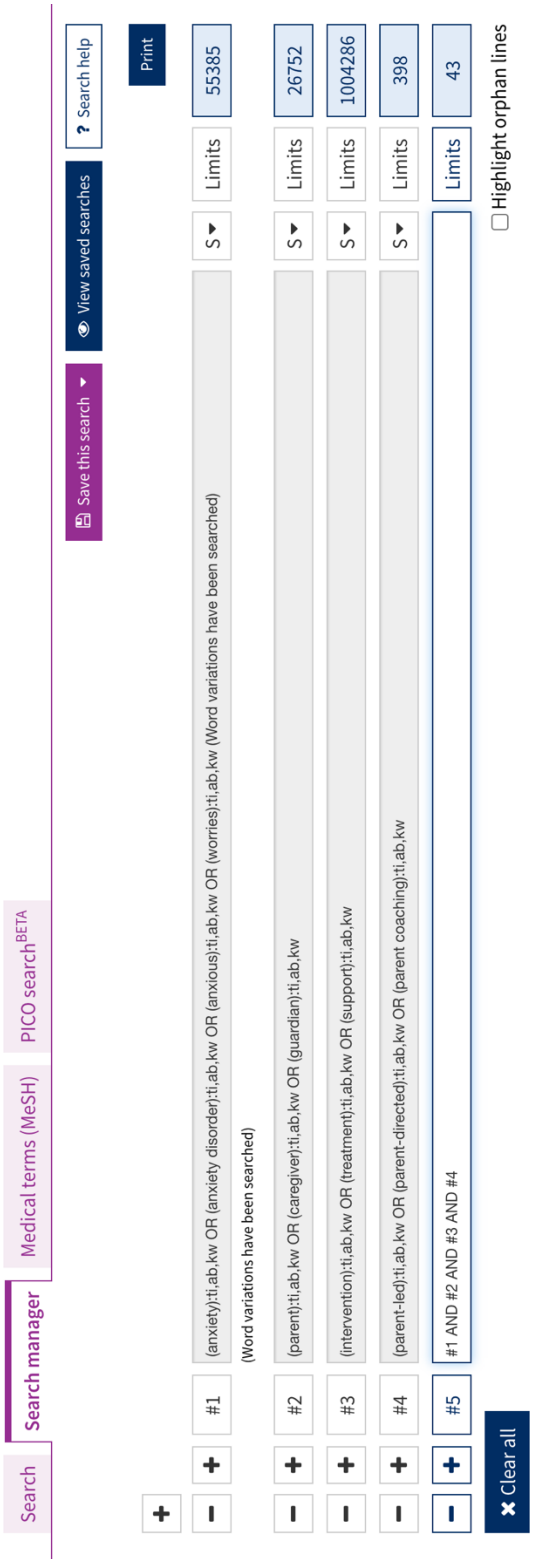
Appendix C

Search terms and input sequence for PubMed

Search	Actions	Details	Query	Results	Time
#4	...	>	Search: **(((anxiety) AND (parent)) AND (intervention)) AND (parent-led)** Filters: **Full text** (("anxiety"[MeSH Terms] OR "anxiety"[All Fields] OR "anxieties"[All Fields] OR "anxiety s"[All Fields]) AND ("parent s"[All Fields] OR "parentally"[All Fields] OR "parentals"[All Fields] OR "parented"[All Fields] OR "parenting"[MeSH Terms] OR "parenting"[All Fields] OR "parents"[MeSH Terms] OR "parents"[All Fields] OR "parent"[All Fields] OR "parental"[All Fields]) AND ("intervention s"[All Fields] OR "interventions"[All Fields] OR "interventive"[All Fields] OR "methods"[MeSH Terms] OR "methods"[All Fields] OR "intervention"[All Fields] OR "interventional"[All Fields]) AND "parent-led"[All Fields]) AND (fft[Filter]) **Translations** **anxiety:** "anxiety"[MeSH Terms] OR "anxiety"[All Fields] OR "anxieties"[All Fields] OR "anxiety's"[All Fields] **parent:** "parent's"[All Fields] OR "parentally"[All Fields] OR "parentals"[All Fields] OR "parented"[All Fields] OR "parenting"[MeSH Terms] OR "parenting"[All Fields] OR "parents"[MeSH Terms] OR "parents"[All Fields] OR "parent"[All Fields] OR "parental"[All Fields] **intervention:** "intervention's"[All Fields] OR "interventions"[All Fields] OR "interventive"[All Fields] OR "methods"[MeSH Terms] OR "methods"[All Fields] OR "intervention"[All Fields] OR "interventional"[All Fields]	11	17:39:32

Appendix D

Search terms and input sequence for Cochrane Library



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