

Family Processes in the Year Following Brief and Virtual Emotion-Focused Family Therapy
Groups: Child and Family Trajectories and Mental Health Service Utilization

by

Laura Colucci

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Examining Committee Membership

The following served on the Examining Committee for this thesis. The decision of the Examining Committee is by majority vote.

External Examiner	Alexander Jensen, Ph.D., Professor, Brigham Young University, School of Family Life
Supervisor	Dillon Browne, Ph.D., Associate Professor, University of Waterloo, Department of Clinical Psychology
Internal Member	Elizabeth Nilsen, Ph.D., Professor University of Waterloo, Department of Clinical Psychology
Internal-external Member	Mark Ferro, Ph.D., Associate Professor, University of Waterloo, School of Public Health Sciences
Other Member	Uzma Rehman, Ph.D., Professor, University of Waterloo, Department of Clinical Psychology

Author's Declaration

This thesis consists of material all of which I authored or co-authored: see Statement of Contributions included in the thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Statement of Contributions

This thesis consists in part of the expanded versions of three manuscripts written for publication, of which, Laura Colucci was the primary author. Laura Colucci also authored the General Introduction, and the General Discussion, which were written under the supervision of Dr. Dillon Browne and were not written for publication. Exceptions to sole authorship of material are as follows:

Research Presented in Chapters 1-3

The present dissertation research was conducted at the University of Waterloo by Laura Colucci, under the supervision of Dr. Dillon Browne. All studies were based on data collected as part of a 6-wave longitudinal study in the FamilyPsyche Lab. Dr. Dillon Browne and Dr. Mirisse Foroughe developed the original study design. Dr. Mirisse Foroughe and her research team at the Family Psychology Centre (FPC) were primarily responsible for data collection. Dr. Dillon Browne and Laura Colucci consulted with the FPC team throughout study implementation, and were responsible for updating research ethics protocols, as relevant. Laura Colucci was responsible for leading data cleaning and management of this large, 25-measure dataset, with support from Imogen Sloss.

As the lead author of studies 1-3 (presented in Chapters 1-3), Laura Colucci formulated research questions, selected measures from the dataset, and developed the data analytic plan, in consultation with Dr. Dillon Browne. Laura Colucci conducted data analyses and wrote the manuscripts, which were then reviewed and edited by Dr. Dillon Browne. Dr. Mirisse Foroughe and Imogen Sloss provided their feedback on the manuscripts before they were submitted for publication.

Citation for Study 1: Colucci, L., Sloss, I.M., Foroughe, M., Browne, D.T. (2026). Family functioning following a brief, virtual emotion-focused family therapy intervention for children's mental health. *JCCP Advances*, e70074. <https://doi.org/10.1002/jcv2.70074>

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Citation for Study 3: Colucci, L., Sloss, I.M., Foroughe, M., Browne, D.T. (submitted to Child and Adolescent Psychiatry and Mental Health). Family-wide predictors of mental health service utilization following a brief family therapy intervention.

One other work exploring caregiver and child positive coping has been published using data from this dataset (cited below), of which, Laura Colucci was a co-author. The present dissertation addressed a variety of distinct research questions and employed numerous distinct measurement tools that extended the existing research using this dataset. The General Introduction and respective study chapters outline the unique contributions and distinct theoretical and clinical implications of each study presented herein.

Sloss, I., Smith, J., Colucci, L., Foroughe, M., Browne, D., (2025). Trajectories of child and caregiver positive coping following a brief emotion-focused family therapy (EFFT) intervention. *Journal of Marital and Family Therapy*, 51(3), e70029.
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Abstract

Brief Emotion-Focused Family Therapy (EFFT) is associated with numerous putative benefits across the domains of child mental health and caregiver psychosocial well-being. Despite promising findings to date, there remains limited research examining the interrelationships across multilevel family process for those seeking this intervention, cutting across child, caregiver, family-wide, and service-system levels of analysis. To address this research gap, the present dissertation provides an empirical application of family systems theory while exploring family-wide trajectories following a brief and virtual two-day EFFT intervention. Three studies involved a sample of N=159 caregivers, representing 124 families and 264 children. This included an analysis of both children's mental health and family functioning, alongside child- and caregiver-specific predictors that characterize families with ongoing mental health service utilization. Across these three studies, the findings of the present dissertation demonstrated that: (1) Variance in post-intervention trajectories was attributable to both stable differences between children, and families, alongside within-child and within-family change, (2) Families experienced consistent post-intervention trajectories of recovery, with a horizontal "s-shaped" pattern over time, across the domains of family functioning and children's anger, anxiety, and depressive symptoms, (3) The associations within child and family well-being are multiple, consistent, and cut across layers of family organization, (4) Out of the variables considered, there were relatively few predictors of mental health service utilization beyond the levels of child symptom impairment and family economic situation, the latter operating differently for caregivers and children. Altogether, these results provide a fulsome evaluation of the interrelationships among family processes implicated in child and family-wide well-being for families seeking a short-term, caregiver-focused EFFT intervention. Overall

implications are discussed, including the empirical basis for a family-wide lens within both EFFT research and emotion-focused caregiver interventions for children's mental health care more broadly.

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Table of Contents

Examining Committee Membership.....	ii
Author’s Declaration.....	iii
Statement of Contributions	iv
Abstract	vi
Acknowledgements.....	viii
List of Figures	xi
List of Tables	xii
General Introduction and Review of the Literature	1
Emotion-Focused Family Therapy Foundations	1
Caregiver-Focused Interventions in Support of Children’s Mental Health	8
Prominent Service Models within Caregiver-Focused Interventions	14
The Necessity of a Multi-Level, Family-Wide Framework when Exploring Post-Intervention Trajectories following Brief EFFT	18
The Present Dissertation.....	22
Chapter 1: Family Functioning following a Brief and Virtual Emotion-Focused Family Therapy Intervention for Children’s Mental Health	25
Introduction	25
Methods.....	30
Results	42
Discussion	52
Chapter 2: Parenting Practices and Child Mental Health Trajectories Following Brief Emotion-Focused Family Therapy	61
Introduction	61
Methods.....	69

Results	76
Discussion	92
Chapter 3: Family-wide Predictors of Mental Health Service Utilization in the Year Following a Brief Emotion-Focused Family Therapy Intervention	102
Introduction	102
Methods	112
Results	121
Discussion	125
General Discussion	133
References	143
Appendices	176

List of Figures

Figure 1: Model-Predicted Individual-Level Cubic Trajectories of Family Functioning over Time

Figure 2: Interaction between Time and the Number of Children on Trajectories of Family Functioning over Time

Figure 3: Children's Mental Health Trajectories Over Time Across Anxiety, Anger, and Depressive Symptoms

Figure A1: Interaction between Time and Family Average Positive Parenting on Child Anger Symptoms Over Time from Model 5c

Figure A2: Interactions between Time and Family Average Positive Parenting on Child Anxiety Symptoms Over Time from Model 5a

Figure A3: Interaction between Time and Number of Children in the Home on Child Depressive Symptoms Over Time

Figure A4: Interaction between Time and Number of Children in the Home on Child Anger Symptoms Over Time

Figure A5: Interaction between Time and Number of Children in the Home on Child Anxiety Symptoms Over Time

Figure A6: Interaction between Time and Previous Child Mental Health Treatment on Child Anxiety Symptoms Over Time

List of Tables

Table 1: Demographic Variables for the Study Sample

Table 2: Descriptive Statistics for Study Variables in Study 1

Table 3: Intraclass Correlation Coefficients (ICCs) of the Multilevel Model Output Examining Individual Trajectories of Family Functioning

Table 4: Fixed Effects of the Multilevel Model Output Examining Individual Trajectories of Family Functioning

Table 5: Random Effects of the Multilevel Model Output Examining Individual Trajectories of Family Functioning

Table 6a: Model Fit Statistics from Multilevel Continuous Growth Model Output Examining Individual Trajectories of Family Functioning

Table 6b: Model Fit Statistics from Multilevel Continuous Growth Model Output Examining Individual Trajectories of Family Functioning

Table 7: Descriptive Statistics for Study Variables in Study 2

Table 8: Intraclass Correlation Coefficients (ICCs) across Null Models

Table 9: Random Effects from the Multilevel Model Output Examining Growth Curves for Child Mental Health Outcomes

Table 10: Fixed Effects from the Multilevel Model Output Examining Growth Curves for Child Mental Health Outcomes

Table 11: Multilevel Model Output of Children's Mental Health Outcomes as Predicted by Child, Parent, and Family-Wide Factors

Table 12: Model Fit Statistics from Model 5

Table 13: Descriptive Statistics for Study Variables in Study 3

Table 14: Model Results Predicting Post-EFFT Mental Health Service Utilization by Family Role

Table 15: Logistic Regression Model Results Predicting Post-EFFT Mental Health Service Utilization for Partners

Table A1: Participant Retention

Table A2: Bivariate Correlations between Study Variables for Study 1

Table A3: Bivariate Correlations between Study Variables for Study 2

Table A4: Bivariate Correlations between Study Variables for Study 3 for the Child Model

Table A5: Bivariate Correlations between Study Variables for Study 3 for the Primary Caregiver Model

Table A6: Bivariate Correlations between Study Variables for Study 3 for the Partner Model

General Introduction and Review of the Literature

The present dissertation provides an exploration of the interrelationships between child, caregiver, and family-wide well-being, alongside predictors of mental healthcare seeking following a brief and virtual emotion-focused family therapy (EFFT) intervention. Contained herein is a literature review discussing the current evidence and foundational concepts surrounding EFFT, caregiver-focused interventions, and family-wide science, followed by a discussion of the goals of the present dissertation. Subsequently, chapters 1-3 offer a further summation of the literature across select domains and reflect the work of three separate studies addressing existing gaps in scholarship surrounding EFFT. Finally, this work concludes with a general discussion that provides a summation of the contributions of this work.

Emotion-Focused Family Therapy Foundations

EFFT is an emerging transdiagnostic intervention for the treatment of children's mental health concerns (LaFrance et al., 2020). The foundations of EFFT are multifactorial, with roots converging across several evidence-based theoretical orientations, including attachment-based therapy, motivational interviewing, family-based therapy, and emotion-focused therapy (Strahan et al., 2017). This approach was initially developed as an adjunctive, and emotion-focused compliment to family-based therapy for adolescent eating disorders (specifically, anorexia), which has a behavioural emphasis (Joyce & Dring, 2019; LaFrance Robinson et al., 2013; 2014; Peterson et al., 2011; Sabey & LaFrance, 2018; Stillar et al., 2016). Since that time, the application of EFFT has broadened across clinical contexts, and this orientation is now applied in the treatment of transdiagnostic child and youth mental health concerns, with emerging evidence supporting positive post-intervention recovery (Cordeiro et al., 2022; Foroughe et al., 2019; 2023; Goveas et al., 2024; Sloss et al., 2025; Smith et al., 2023). With a single cohort design, the

present dissertation replicates and extends findings from other EFFT researchers that have demonstrated positive changes in child and caregiver well-being following brief forms of this intervention. At the time of writing, the first randomized clinical trial for this approach was presently underway by other researchers (Seddon et al., 2025).

EFFT techniques can be flexibly applied across different clinical service types (e.g., individual, family, and brief, multi-caregiver group interventions, also known as brief EFFT workshops) and are designed to be adaptable for use in conjunction with other therapeutic modalities or as a standalone treatment (LaFrance et al., 2020; Strahan et al., 2017). By nature, EFFT is well-suited for delivery as a caregiver-focused intervention. However, as an emerging approach, it represents an under-researched arm of transdiagnostic children's mental health services, though it is increasingly available to the public within clinical practice settings. For this reason, EFFT techniques warrant increased empirical attention so that clinical practice in this domain can remain both client-centred and evidence based, areas of demonstrated need in the provision of children's mental health care (Carr, 2010; Weisenmuller & Hilton, 2020). To this end, a family-wide (family systems) perspective remains a valuable framework when exploring trends in child and family well-being following this intervention, and among caregiver-focused interventions more broadly. However, multilevel evaluations that simultaneously consider the interrelationships between child, caregiver, and family well-being in this context have been more limited (Cox & Paley, 1997; 2003; Weisenmuller & Hilton, 2020).

Historically, family therapy techniques have had a strong emphasis on the family member with the most emergent or disruptive challenges (the "identified patient") and were centralized around behaviour change for that individual (Minuchin, 1981). More recent approaches, such as EFFT, target emotion regulation as a precursor to symptom change, and embody approaching the

family as a whole, where caregiver-child relational bonds serve as an intervention target (Lebow & Diamond, 2019; LaFrance et al., 2020). From this perspective, EFFT works to bolster caregivers' capacity for parent-child co-regulation (emotion coaching) and targets strengthening familial bonds and relational repair, with a secondary emphasis on behaviour change (which caregivers support through behaviour (recovery) coaching). In this way, EFFT is a relationally focused intervention which offers caregivers both psychoeducation and tools to understand the role of their own experiences that may inform their caregiving style, process their emotional reactions to a child's challenges, and effectively work through barriers to engagement, termed "caregiver blocks." The psychoeducation included in EFFT also walks caregivers through an exploration of how they tend to respond to a child's challenges and the ways in which their stance dovetails with that of their co-parent/partner, where applicable, supporting caregivers in understanding how tensions can arise in the co-parenting relationship as a result of complimentary or divergent caregiving styles. Similarly, EFFT is also unique in the provision of a clinician module that addresses barriers to therapist engagement, providing tools to work through "clinician blocks" in care. Altogether, EFFT was designed as an intervention that empowers caregivers as central "change agents" in the family system, and as such, caregivers are coached to model positive coping and empowered to support children in children effectively regulating their emotions and behaviours (LaFrance et al., 2020).

The Role of EFFT in Children's Mental Health Recovery

Inherent to EFFT is the overarching goal of supporting "recovery" which is dual pronged: (1) Recovery is operationalized as reduction in children's mental health symptoms, and (2) Recovery is expected to operate through the foundations of strong parent-child relationships and coregulation, which support healthy emotion socialization and a reduction in children's mental

health symptoms (LaFrance et al., 2020). To this end, EFFT directly targets relational repair within the parent-child relationship in areas that may have been strained as a result of children's mental health concerns or are a broader co-occurring challenge. For families where the caregiver-child relationship remains strong, the intervention similarly empowers caregivers to have an active role in supporting children's treatment. Specific EFFT intervention techniques are discussed in more detail under *Intervention Overview* in Chapter 1. The active implementation of EFFT techniques supports caregivers in effectively co-regulating with their child and modeling effective responding to emotions in a way that is therapeutic without being avoidant nor accommodating. With this stance, caregivers can then offer needed emotional support to their child, leaning on the strength of the parent-child bond, and bolstering this connection as a vehicle (or primary mechanism) through which the intervention affects change in children's emotion processing (consistent with research demonstrating that challenges with emotion regulation are a transdiagnostic risk factor for child psychopathology, and general frameworks of emotion socialization through parent-child, and family-wide interactions; England-Mason et al., 2023; Foroughe et al., 2023; Hajal et al., 2020; Nelson et al., 2009). To this end, one of the core EFFT modules is aptly termed "recovery coaching," which is caregiver-initiated behaviour coaching specifically aimed at symptom-interruption and supporting children in taking steps towards recovery with behavioural intervention strategies that encourage disengagement from treatment- or recovery-interfering behaviours. For example, in adolescent anorexia treatment, recovery coaching involves meal support, for obsessive-compulsive disorder, this would include promoting exposure practice, and for behavioural concerns or oppositional symptoms, setting boundaries and limits; Foroughe et al., 2023; LaFrance et al., 2020).

It is valuable to acknowledge that the framing of “recovery” as a result of children’s mental health interventions may not be the most precise language to capture the goal of treatment for all types of concerns. For example, in the context of neurodevelopmental disorders like attention-deficit hyperactivity disorder (ADHD), treatment strongly emphasizes the goal of learning techniques to effectively manage and cope with symptoms over time, as a means of reducing functional impacts (Chan et al., 2022). At the time of writing, EFFT has not yet been specifically studied in the context of neurodevelopmental disorders; however, caregivers representing children presenting with ADHD are among those seeking brief EFFT interventions. Altogether, EFFT is framed as an approach that is poised to affect long-standing change at the level of *how parents respond* to children’s symptoms, and supporting repair for challenges to the parent-child relationship, which can be flexibly adapted to support caregivers regardless of their child’s presenting concern(s).

One of the distinctives of EFFT is the way that caregivers are centralized as “change agents” in the family system, and in so doing, the parent-child relationship is galvanized as a vehicle for children’s mental health recovery. Through the intervention and based on a strong foundation of caregiver-child relationships in concert with children’s mental health, caregivers are encouraged to implement EFFT techniques as active participants in their child’s treatment. As such, the intervention techniques and core modules inherent to this orientation support caregivers in harnessing their internal resources to confidently engage in emotion and behaviour (recovery) coaching, take leadership with relational repair (as needed), and reflect on their own experiences that directly relate to how they respond to their child’s presenting concerns (Foroughe et al., 2023; LaFrance et al., 2020). To be consistent with the overarching goals of EFFT and terminology specific to this theoretical orientation, within the present dissertation,

demonstrated positive changes in children’s mental health symptoms (symptom reduction) and family interpersonal relationships (reduced family dysfunction) have been broadly framed as trends towards “recovery” across these domains. Given that the study is not a randomized controlled trial, the results presented across Chapters 1-3 do not conclusively inform whether EFFT results in change across these specific outcomes. Thus, in an effort to discuss the primary findings from this dissertation (that EFFT putatively supports family-wide recovery across interpersonal relationships and children’s mental health symptoms), while also maintaining caution in keeping with the methodological limitations of the study design (i.e., this work does not offer conclusions regarding the effectiveness or efficacy of EFFT relative to no other treatment or treatment as usual), the findings surrounding these constructs have been framed as "hypothesized trajectories of recovery” following brief EFFT.

Brief, Caregiver-Focused EFFT Workshops

Studies have explored post-treatment gains following EFFT using several research designs, including case studies (Joyce & Dring, 2019; Peterson et al., 2011; Smith et al., 2023), qualitative research (caregiver perceptions of the parent-child relationship and overall treatment gains; Bøyum & Stige, 2017; Nash et al., 2020) and outcome and process-based research related to caregiver-self-efficacy, children’s mental health, and family coping (Cordeiro et al., 2019; Foroughe et al., 2018; 2023; LaFrance Robinson et al., 2016; Stillar et al., 2016; Strahan et al., 2017). As previously mentioned, initially, these interventions were designed for caregivers of adolescents with eating disorders but a growing handful of studies have begun transdiagnostic applications of brief EFFT workshops to address child psychopathology across symptom profiles (see Cordeiro et al., 2019, 2022; Foroughe et al., 2018; 2023; Sloss et al., 2025; Wilhelms-Langeland et al., 2020). Amidst the need for efficient mental health interventions in children’s

mental health care, the time-limited nature of these workshops offers an accessible and affordable treatment option for many families (Peterson et al., 2011). Furthermore, the workshops can be offered both in-person and virtually and can be accessed by caregivers regardless of their child's willingness to participate in treatment. This flexibility in service delivery eliminates some of the barriers associated with treatment accessibility in children's mental health care, including high rates of treatment discontinuation, financial constraints for long-term services, geographic limitations, long wait lists for service, and a more intensive time commitment (Sabey & LaFrance Robinson, 2018). Altogether, though several researchers have begun to evaluate treatment gains following brief EFFT, and existing literature demonstrates promising putative benefits in response to this intervention, the application of these techniques is presently broader than the existing empirical evidence base. In addition, though some studies have begun to evaluate post-intervention well-being across caregivers and children following brief forms of this intervention, with a promising trend of post-intervention recovery, very limited empirical data is able to speak to intervention trajectories across at the whole-family level of analysis and across multiple children in the home. Further, research on post-intervention change has been limited across the range of constructs considered, and no studies have quantified continued mental healthcare seeking following this intervention (discussed in more detail within Chapters 1 and 2). Finally, existing evaluations seldom apply a family-wide measurement lens, expanding the focus of measurement across the family system beyond the target child and primary caregiver (Browne et al., 2015). These limitations demonstrate the need for a broadened evidence base that can more specifically characterize post-intervention family-wide processes following brief EFFT interventions.

Caregiver-Focused Interventions in Support of Children's Mental Health

Within the domain of child and youth mental health services, caregiver intervention programs represent a diverse arena of treatment options. These are commonly categorized across two theoretical camps: behavioural and emotion-focused interventions. Historically, behavioural caregiver programs preceded the development of emotion-focused interventions, and consequently, have a much larger evidence base (Thongseiratch et al., 2020). Programs of this nature are most frequently applied in the treatment of externalizing disorders (e.g., attention deficit hyperactivity disorder, conduct disorder, and oppositional defiant disorder) and a behavioural framework also undergirds many popular caregiver interventions that teach positive discipline and parent-child interaction strategies such as Parent Management Training, Incredible Years, and the Triple P Positive Parenting Program (Kazdin, 1997; Sanders, 1999; Sanders et al., 2016; Webster Stratton, 2003). By comparison, emotion-focused programs are often used to treat internalizing disorders and address attachment-related challenges. That said, emerging evidence and contemporary models of children's mental health suggest that challenges with emotion regulation are a strong and modifiable risk factor for transdiagnostic mental health challenges (England-Mason et al., 2023). Correspondingly, the field of caregiver-focused interventions for children's mental health has experienced a burgeoning availability of emotion-focused programs.

Emotion-Focused Caregiver Intervention Programs

A plethora of emotion-focused caregiver interventions have been developed. However, program structure and treatment targets vary quite considerably across interventions. To date, there has been widespread application of these techniques across numerous clinical and psychosocial domains, including those focused-on attachment, general caregiving skills and caregiver self-efficacy, interventions targeting emotion coaching and skills training, and those

designed for special populations (e.g., stepfamilies, caregivers with substance abuse, families in foster care, caregivers with adverse childhood experiences, and those reuniting post military deployment; Ansar et al., 2022; Havighurst et al., 2020; Lyu et al., 2023). These programs and their overarching theoretical orientation represent an emergent area of the child mental health prevention and treatment literature, directly targeting parent-child emotional co-regulation, responsivity, and emotional awareness, as a means of mitigating transdiagnostic risks for the development of children's mental health concerns (Johnson et al., 2017; McLaughlin, 2011; Weissman et al., 2020).

A review by Havighurst and colleagues (2020) identified five broad categories of caregiver emotion-focused interventions for treating child and adolescent mental health problems, including those targeting caregiver competence and general emotion coaching skills (1), EFFT (2), attachment and caregiver sensitivity (3), mindfulness-based programs for emotion regulation and caregiver reactivity (4), and behavioural programs that incorporate emotion-focused elements (5). Common approaches under this umbrella include Attachment and Biobehavioural Catchup (ABC) and Tuning in to Kids (TIK), alongside EFFT, which is among the most recently developed. Within emotion-focused caregiver programs, EFFT is among the most comprehensive as a relational intervention - addressing caregivers' family of origin experiences with emotion, caregiver emotion awareness, and emotion understanding, coaching, and regulation. In addition, results from a recent meta-analysis found that attachment and emotion-focused interventions of this kind may be most helpful for treating externalizing and internalizing symptoms when they were *specifically developed to target child and adolescent mental health outcomes* (Jugovac et al., 2022, p.768). In this way, EFFT is an ideal candidate for future research in the domain of caregiver-based child mental health interventions, as it was

developed as a relationally focused transdiagnostic modality for child and youth mental healthcare (LaFrance et al., 2020). Moreover, children who have experienced trauma may be more vulnerable to reduced emotional awareness and as a result, are predisposed to difficulties with emotion regulation due to altered emotion conceptualization that can occur as children process and cope with destabilizing and adverse experiences (Weissman et al., 2020). As such, EFFT is broadly considered a trauma-informed intervention (Foroughe et al., 2018; SAMHSA, 2024), though EFFT in the context of trauma presentations was not the focus of this dissertation. Nevertheless, this conceptualization is consistent with the specific populations that are theorized to benefit most from emotion-focused techniques, (e.g., cases where caregivers also experience mental health challenges, or those where children and/or caregivers have a history of trauma or insecure attachment styles; Foroughe et al., 2019). Overall, these findings highlight the need for additional research on emotion-focused programs, especially in view of their widespread application and availability across myriad clinical contexts (Havighurst et al. 2020).

Emotion-Focused Skills Training (EFST). Emotion-Focused Skills Training (EFST) is a recently developed and comparable transdiagnostic, caregiver-focused intervention for child mental health concerns (Severinsen, 2026). This European intervention (developed by researchers at the University of Oslo in Norway) was created to address multifaceted challenges with children's mental health prior to the broader transdiagnostic application of EFFT beyond adolescent eating disorders (Ansar et al., 2022). EFST features a two-day (13-hour) group program for caregivers, followed by six weeks of individualized single-hour support sessions over the course of 12 weeks. The core modules and activities of the program mirror those in the EFFT framework but may rely more heavily on Emotion-Focused Therapy (EFT) foundations than does EFFT, which also includes a behaviour coaching component and broader theoretical

roots from other clinical modalities, including EFT (Ansar et al., 2022; Strahan et al., 2017). Core EFFT modules are as follows: (1) *Emotion coaching*, (2) *Recovery coaching* (the EFFT-specific language for behaviour coaching), (3) *The therapeutic apology*, and (4) *Addressing caregiver blocks*. Further details related to intervention content and related modules are described within the Methods section of Chapter 1. Similarly, EFST's intervention targets include: (1) *Validating emotions*, (2) *Enhancing motivation* through understanding caregiver impacts on child emotions, (3) *Resolving interpersonal injuries* in the parent-child relationship, and (4) *Setting boundaries* as a caregiver through “*psychoeducation, experiential exercises and specific skills training*” (Severinsen et al., 2022, p.5).

Overlapping with the principles of EFFT, EFST aims to bolster caregiver self-efficacy in the service of supporting children's recovery mental health challenges. These programs are also poised to identify factors that interfere with supportive parenting, including caregiver tolerance of child distress, an established area of needed investigation for the treatment of child and adolescent mental health conditions (Dimitropoulos et al., 2017; Sabey & LaFrance Robinson, 2018; Peterson et al., 2011). Though the first randomized controlled trial for EFFT is currently underway by other researchers (Seddon et al., 2025), promising RCT evidence has demonstrated the effectiveness of EFST in reducing child mental health symptoms, equivalent to treatment as usual in outpatient care settings (Severinsen et al., 2026). These results stand alongside other caregiver-focused outcomes from emerging EFST research, including enhanced caregiver emotion regulation, self-efficacy, and emotional experiencing (Ansar et al., 2021; 2023), in addition to evidence from a randomized clinical trial of a virtually-delivered Tuning in to Kids (TIK) program which also demonstrated effectiveness in reducing children's mental health problems (Burkhardt et al., 2024). Altogether, the emerging findings across both caregiver and

child well-being in support of EFFT, robust evidence for EFST and TIK, alongside meta-analytic support for emotion-focused caregiver interventions more broadly, all provide a strong empirical foundation for continued research on family-wide processes following brief EFFT (Zahl-Olsen, 2023).

Emotion-Focused Components within Behavioural Caregiver Programs

Among commonly known and evidence-based behavioural interventions, the Triple P Positive Parenting Program, is used worldwide and frequently offered in virtual and in-person intervention formats, as both a preventative intervention and one that can be used for specific child behavioural challenges (Sanders, 1999; Sanders et al., 2016). Though this intervention does include a module on *managing emotional behaviour*, no other emotion-related strategies are included in the standard 8-week program (Ralph & Sanders, 2014). Interestingly, one study explored potential benefits of an Emotion Enhanced Triple P parenting group in a randomized trial with caregivers of children aged 3-6 years with early onset conduct problems (Salmon et al., 2014). This study found that though the program with an emotion emphasis offered benefits related to the degree of emotion language used by the children, it did not confer immediate benefits for improvements in conduct symptoms. This result may suggest that very young children with disruptive behaviour challenges may experience more benefit from behaviourally focused approaches (which may be learned more readily than emotion coaching as it relies upon linguistic competence). This finding seems contradictory with the established linkages between caregiver-focused interventions, parenting practices, children's emotion socialization, and child mental health symptoms (especially internalizing concerns); however, there may have been comparatively low intensity exposure to emotion-focused techniques in Emotion Enhanced Triple P amidst the overarching behavioural program, which may have been insufficient to

confer clinical benefit without more focused training (England-Mason et al., 2023; Salmon et al., 2014; Seddon et al., 2020). To this end, a randomized controlled trial of behavioural parent training with an emotion coaching approach for disruptive child behaviours found that the program was associated with fewer oppositional and ADHD symptoms in children and a more positive parent-child relationship, which were maintained 3 months later (Chan et al., 2022). Further, it is also possible that the joint-emphasis of the program on both emotion- and behaviour-focused skills may have been burdensome for caregivers to learn both approaches in tandem, which could have limited the generalizability of program techniques outside of treatment. Existing research suggests that behavioural and emotion-focused techniques may be most effective when offered separately so that caregivers can focus on mastering each approach independently, compared to combined program formats with higher learning demands. In addition, the robust evidence for the Triple P Positive Parenting program demonstrates the value of multi-systemic (including family-wide research) approaches when evaluating post-intervention gains across the family system. Finally, the above-mentioned studies underscore the need for additional research on how emotion-focused programs apply to transdiagnostic mental health concerns and those commonly treated with a behaviourally focused approach (e.g., disruptive child behaviours or child anger symptoms). Altogether, there appears to be distinct factors associated with post-intervention change in family processes following emotion-focused compared to behaviourally focused programs, and these warrant continued exploration. As a natural next step in the field, exploring post-intervention trajectories following EFFT across both internalizing and externalizing symptoms will support a clearer understanding of the role of emotion-focused caregiver interventions within the landscape of children's mental health care (as highlighted by Jugovac et al., 2022).

Prominent Service Models across Caregiver-Focused Interventions

Brief Caregiver Interventions

Within the broad landscape of mental health interventions, increased attention has recently been directed towards brief and short-term interventions (Sabey & LaFrance, 2018). These include single-session psychotherapy models, online interventions, and workshops that offer intensive training in a specific domain. Programs of this nature often have an emphasis on preventative intervention, though they are accessed by families with diverse clinical needs. In consideration of geographic accessibility, financial cost, and the proliferation of brief *virtual* caregiver interventions that are increasingly being offered across treatment centres, ongoing feasibility research is needed to understand the role of these kinds of interventions within the overall sphere of children's mental healthcare (Sabey & LaFrance, 2018). In addition to the previously mentioned EFFT and EFST programs, examples of short-term emotion-focused interventions for children and families include a multi-day intensive program for mindfulness-based positive behaviour support (Singh et al., 2019), condensed formats of typically longer-term interventions (e.g., Brief Primary Care Triple P; Triple P international, 2022), single-session interventions (e.g., programs for families with a history of conflict; El-Khani et al., 2019), and ultra-brief virtual and family-play interventions focused on bolstering child well-being through positive co-parenting support (e.g., Love Together Parent Together (LTPT) and Lausanne Family Play – Brief Intervention (LFP-B); Philipp et al., 2023; Prime et al., 2022).

From a mental health equity perspective, some research has noted that brief or “lower dosage” model of caregiver-focused interventions addressing parent-child relationships may be most effective for families impacted by economic pressure and other stress-related vulnerabilities (Hagan et al., 2017, p. 691; Whittingham et al., 2023). Similarly, short-term, caregiver-focused

interventions are frequently offered in a group therapy format, which has been identified as a “‘triple E treatment’ – efficient, effective, and equivalent to individual therapy” when considering clinical benefits (Whittingham et al., 2023). Aligned with this perspective, past researchers have identified “the pressing need for high-quality evaluations of brief interventions for family support,” of which, this dissertation offers notable contributions, while also presenting complimentary evidence for role-specific characteristics that predict continued child and caregiver mental healthcare seeking following brief EFFT for caregivers of children with mental health challenges (Hamilton et al., 2025, p. 841).

Virtual Service-Delivery in Child and Youth Mental Health Care

For many caregivers, the availability of virtual and family-involved programs offers increased access to effective clinical services (McLean et al., 2021). These include reducing barriers to service access, such as those related to geographic location, limitations in finding child-care alongside inflexible work schedules, and reduced felt stigma, among others (McGoron & Ondersma, 2015; Hansen et al., 2021). In this way, virtual service delivery options may offer a more convenient and accessible means to receive caregiver support for child mental health challenges than treatment as usual through in-person services (LaFrance & Sabey, 2018).

During the COVID-19 pandemic, a rapid paradigm shift occurred in the provision of virtual mental healthcare in order to compensate for the widespread inaccessibility of certain mental health services due to pandemic-related shutdowns, and the high incidence of mental health concerns across both children and their caregivers during this period (Garcia et al., 2021; van Leuven et al., 2022). Certainly, virtual services were offered prior to the onset of the pandemic, but the extent of research in this domain and breadth of clinical application of virtual services was much more limited (Ekland et al., 2010). Because of this limitation, many programs

that were offered in virtual formats during the pandemic (including brief EFFT) were not initially designed for online delivery but were adapted out of necessity, given that in some instances, no service provision was the only alternative (Foroughe et al., 2021; van Leuven et al., 2022).

To date, online parenting interventions have shown promising clinical benefits for caregivers and children. A recent meta-analysis by Spencer and colleagues (2020) found that online caregiver programs (mainly web-based modules, with some offering clinician interaction) have collectively shown strong positive associations with increased positive parenting behaviours and caregiver encouragement, and fewer negative parent-child interactions, alongside boosts in child and caregiver mental health. As a caveat, these results may not necessarily clarify the differences between non-interactive caregiver programs and those that offer dynamic or face-to-face clinical support. To this end, caregivers may find it difficult to independently implement therapeutic techniques without clinical supports, and programs with other caregivers in a group setting may also facilitate learning and enhance program interest (Jürgensen et al., 2025; Whittingham et al., 2023). Altogether, additional research is needed exploring family processes following live caregiver-focused EFFT offered in a brief, virtual, and group format, as evidence to date illustrates the value of a whole-family framework in this context (Browne et al., 2015; van Leuven et al., 2020).

Virtual caregiver interventions have been applied in diverse contexts, with myriad clinical approaches. According to findings from a meta-analytic review, though some evidence has been demonstrated that behavioural parent programs may confer benefit for child emotional challenges, *“most online behavioural management programs have not explicitly included strategies to prevent or manage child’s emotional problems specifically”* (Thongseiratch et al., 2020, p.1563). Of the twelve studies included in their review, most were behaviourally focused,

and only one included an assessment of internalizing mental health concerns (i.e., there is an over-representation of programs for treating externalizing symptoms). In addition, hosting virtual intervention programs (whether through apps, telehealth consultation, group services, or all three concurrently) may present unique challenges that are not faced during in-person service delivery. These include technological complications (functionality of apps, participant challenges with logging into the platforms), low group attendance in certain seasons, difficulty co-ordinating mutual schedules for telehealth sessions, impersonal forum interactions with other participants, and clients missing important information shared through email, among others (MacKinnon et al., 2022). Thus, despite the identified benefits of online-service delivery and research demonstrating its comparable outcomes with in-person or hybrid models of caregiver-group interventions, additional research in this area is warranted (as noted by research calls from both Spencer et al., 2020 and van Leuven et al., 2022), particularly for emotion-focused interventions.

Related to existing literature for virtual EFFT programs, a recently published case study by Smith and colleagues (2023) demonstrated positive outcomes from an eight-week virtual EFFT intervention across multiple levels of family well-being, including general family functioning, caregiver self-efficacy, reduced caregiver psychopathology, and reductions in child depression, anger, and anxiety symptoms. This study was the first of its kind to demonstrate support for virtually-delivered EFFT interventions, and stands among a handful of studies that have evaluated whole-family outcomes following EFFT and emotion-focused caregiver interventions more broadly (Havighurst et al., 2020; Sloss et al., 2025). These findings highlight the feasibility of virtual service delivery within EFFT, demonstrate the value of whole-family research approaches interventions applying this approach, and support the need for additional research in this area (e.g., in other EFFT intervention formats such as brief 2-day workshops). In

view of calls for policies and research that increase both the *reach* of and *evidence* for caregiver interventions within children's mental healthcare, continuing to explore long-term post-EFFT trajectories of well-being, alongside the characteristics of families seeking children's mental health services following this program will be particularly impactful for informing targeted, and preventative precision mental healthcare within this population (Doyle et al., 2023).

The Necessity of a Multilevel, Family-Wide Framework when Exploring Post-Intervention Trajectories following Brief EFFT

As previously discussed, family relationships are invariably connected to child mental health. Substantial evidence from developmental science and family systems literature has demonstrated the interconnections between parent-child and family interaction dynamics, individual caregiver mental health, and overall child well-being (Browne et al., 2015; 2019; Cox & Paley, 1997; Goodman et al., 2011; Plamondon et al., 2018; Repetti et al., 2002). Despite this robust theoretical basis and calls for research that considers a family-wide lens when evaluating child development and family stress, research that applies comprehensive and multilevel assessment and measurement in EFFT is more limited, with few studies exploring multiple levels of the family system within the same study (Browne et al., 2016; Colucci et al., 2021; 2023; Lin et al., 2021; Oliver & Pike, 2018; Pike et al., 2016; Plamondon et al., 2018; Sokolovic et al., 2020; 2021). This limitation also extends to the currently available intervention research for clinical outcomes from child mental health treatment programs, including brief EFFT (Havighurst et al., 2020).

Challenges with emotion regulation and avoidance of distress are considered transdiagnostic risk factors for the development and maintenance of mental health challenges, across the lifespan (Everett et al., 2021; LaFrance et al., 2020; McLaughlin et al., 2011; Sabey &

LaFrance, 2018; Schäfer et al., 2017). In addition, parenting a child with mental health challenges is often associated with strain on caregiver well-being and many caregivers are vulnerable to reduced self-efficacy and feelings of self-blame that can operate as blocks in the caregiving relationship, impacting caregivers' willingness to actively engage in their child's treatment and recovery (Foroughe et al., 2019). To this end, many caregivers in this context can experience fear related to how to effectively manage their child's symptoms or experience difficulties due to their own experiences within the parent-child relationship; these can lead to avoidance of co-regulation with their child, and/or symptom enabling or accommodation behaviours (Cordeiro et al., 2019; Stillar et al., 2016). EFFT workshops target all these areas of vulnerability, equipping caregivers with the tools to regulate their own emotions during challenging interactions and providing psychoeducation and experiential practices to implement emotion and behaviour coaching as an effective means to manage emotional and behavioural dysregulation (Sabey & LaFrance Robinson, 2018). Research to date has found that these caregiver-specific factors have been inversely associated with child treatment outcomes across EFFT, EFST, online parenting programs, and Child-Parent Psychotherapy (Ansar et al, 2023; Foroughe et al., 2019; Hagan et al., 2017; Spencer et al., 2020; Strahan et al., 2017). Altogether, "theoretical and empirical evidence has indicated that caring for the mental health of both members of the caregiver-child dyad is essential for symptom reduction and sustained mental health improvement in early childhood" (Hagan et al., 2017, p.691). Thus, caregiver psychosocial-wellbeing and parent-child dynamics remain valuable areas of clinical assessment, alongside broader family-relationships and child mental health, when exploring post-intervention trajectories of well-being following brief EFFT.

Based on the family stress model, boosts in broad, family relational well-being may also confer protective effects against adversity and mitigate risks that might otherwise contribute vulnerabilities in the family system in association with children's mental health concerns (Browne et al., 2025; MacPhee et al., 2015; Repetti et al., 2002). The bidirectionality of interpersonal exchange and psychosocial well-being between family members supports the perspective that positive changes in one relational domain may confer broad gains in well-being for all individuals across the family unit (Browne et al., 2015; England-Mason et al., 2023). This occurs due to spillover across relational subsystems (e.g., the parent-child relationship, between siblings, the couple, and the whole-family overall) as family relationships represent an ongoing and reciprocal (transactional) process of interaction within a shared environment (Cox and Paley 1997; 2003; Nelson et al., 2009). Thus, to have a comprehensive understanding of clinical trajectories following brief EFFT workshops, it is essential to maintain a multilevel family framework and to explore family-level outcomes, including family-wide interpersonal functioning.

Child and youth intervention research, by nature, necessitates an emphasis on whether programs produce clinically significant symptom change. To this end, the result presented within a prominent meta-analysis and systematic review of group caregiver interventions for child externalizing and internalizing symptoms included a focal emphasis on child symptom reduction over the course of each intervention (Buchanan-Pascall et al., 2017). This individual-specific focus on children's well-being is understandable in this context; however, if child-focused outcomes are the *only* ones that are evaluated, broader psychosocial benefits (e.g., across siblings, and within the ambient family relational environment), beyond individual symptom change remain unknown and underexplored. This research gap also extends to an understanding

of what factors specific to children and caregivers predict ongoing interaction with the mental healthcare system following receipt of brief caregiver interventions (i.e., is it possible to identify the individual-specific and family-wide features that characterize families that present with continued mental healthcare seeking after receiving a brief, emotion-focused caregiver intervention?).

Consideration of both parent and child outcomes is frequently given when evaluating outcomes from popular and highly effective *behaviourally focused* caregiver training programs. For example, in the *Triple P Positive Parenting Program*, caregiver self-efficacy, caregiver attributions, and their role in managing child behaviours have been highlighted as key facets of the effectiveness of the program (Sanders et al., 1999; Sanders, 2016). However, in consideration of the *emotion-focused* caregiver programs identified in a review by Havighurst and colleagues (2020), less than half of the included studies (24/49) measured more than one “level” of child, caregiver, or family outcomes, and only one included an assessment of family-wide relational dynamics (Otterpohl, et al., 2020). If parent-child dynamics, parenting factors (e.g., caregiver mental health, caregiver self-efficacy), and family-wide relationships are not evaluated as outcomes alongside child mental health, valuable domains of assessment will be missed, and broad results related to intervention effectiveness may be obfuscated by the singular focal emphasis on child symptom change. This identified gap in family-wide outcome assessment also applies to research on *virtual* caregiver intervention programs, of which, only a handful of studies to date (including a case study) have previously evaluated family-level factors (e.g., family functioning; Smith et al., 2023; Sloss et al., 2025). Thus, there is a need for additional exploration of how the family interpersonal context may change following caregiver-focused online interventions, aligned with a family systems theory framework (Cox & Paley, 1997;

Spencer et al., 2020). This is especially pertinent when evaluating emotion-focused interventions which address the co-regulation of parent-child emotional processes as an intervention target (LaFrance et al., 2020). Treatment programs of this nature are inherently oriented towards family-wide interpersonal dynamics (as emotional affect is understood to reverberate across relationships in the family system, “*get[ting] inside the family*” through interpersonal exchanges between caregivers, children, siblings, and the couple relationship; Browne et al., 2015, p. 398; Masarik & Conger, 2017). From the framework of brief EFFT, this approach emphasizes the role of parenting experiences and parent-child interpersonal dynamics as contributions of caregivers to the family system within the context of children’s mental health treatment (LaFrance et al., 2020). Therefore, when evaluating interventions with a multilevel treatment target, outcome measurement must be aligned with the program design and underlying theoretical tenants of this intervention.

The Present Dissertation

In response to the above-mentioned gaps in the literature and related calls for research and policy within children’s mental health related caregiver-focused interventions, the goals of the present dissertation were as follows:

(1) Provide a fulsome analysis of multilevel, family-wide well-being in the 12-month post-intervention period following a brief EFFT intervention, informed by the tenets of family systems theory and the family stress model. To this end, this dissertation will use variance partitioning as a tool to disentangle variance in child and family well-being as a function of between child/family differences versus within child/family change over time. Furthermore, growth curve modelling will be used to identify the shape of post-intervention trajectories across children’s mental health symptoms and family interpersonal functioning.

(2) Explore the associations between multilevel family processes across the post-intervention period in a sample of caregivers receiving brief EFFT (e.g., understand the ways that caregiver well-being relates to family interpersonal functioning, how child mental health symptoms vary over time, across multiple children in the family (and in association with parenting practices), and clarify family predictors of mental healthcare seeking in a sample of caregivers seeking brief EFFT, as predicted by child, caregiver, and family factors).

(3) Reflecting a family-wide perspective and the interpersonal and psychosocial complexity inherent to the family system, contrast findings across individuals in the family and across family roles. The present dissertation will compare trajectories of post-intervention child mental health symptom change for up to four children per family, understand child-specific differences in parenting behaviours as they relate to children's mental health symptoms, and compare predictors of mental healthcare seeking across children and caregivers (including a comparison of mental healthcare seeking across co-parenting roles (e.g., primary caregivers vs. their partners)).

To address these identified goals, *Study 1* (presented in Chapter 1) explored predictors of post-intervention family functioning, including caregiver distress and parenting stress, while also accounting for between-family differences and within-family change over time. Subsequently, *Study 2* (presented in Chapter 2) explored post-intervention change in domain-specific children's mental health symptoms (anger, anxiety, and depressive symptoms) across up to four children per family. In addition, this study also provided a multilevel exploration of the associations between family-wide, and child-specific parenting positivity and negativity in relation to children's domain-specific mental health symptoms. Finally, *Study 3* (presented in Chapter 3) identified factors associated with post-EFFT mental health service utilization for both children

and caregivers (primary caregivers and their partners), clarifying role-specific characteristics that characterize families who access ongoing care.

This program of research offers meaningful contributions towards the growing empirical evidence base for the long-term outcomes following brief EFFT, informing a more fulsome evaluation of post-intervention trajectories than is presently available. In tandem with a family-wide, dual-caregiver, multi-child design, the included studies also offer insights surrounding the clinical benefits of virtual service delivery with group-based, caregiver-focused EFFT within the landscape of in child mental health treatment. This dissertation illustrates the interconnectedness of child, caregiver, and family-wide well-being and associated implications for informing continued mental healthcare treatment seeking in this sample.

Chapter 1: Family Functioning following a Brief and Virtual Emotion-Focused Family Therapy Intervention for Children's Mental Health

Introduction

Family systems theory emphasizes the interconnectedness of individuals and relational subsystems within the family unit (e.g., between caregivers, the parent-child relationship, and sibling dynamics; Browne et al., 2015; Cox & Paley et al., 2003). Through ongoing interactions, spillover between these relational levels occurs (Nelson et al., 2009). This influence includes the transfer of psychological distress, as negativity can become shared by the whole family through repeated exchanges (Staccini et al., 2015). In this way, children and caregivers are connected in their experiences of psychological distress, as their affective states emerge within parent-child, sibling, couple, and family-wide spheres of influence (Cox & Paley, 1997; Nelson et al., 2009). Thus, when exploring intervention outcomes from children's mental health services (especially those with a caregiver component), family-wide factors should be included as an outcome.

Emotion-Focused Family Therapy (EFFT) is an emerging and promising therapeutic approach for children's mental health care where caregiver involvement is central (LaFrance et al., 2020). Brief group EFFT workshops for caregivers offer an efficient and accessible caregiver-focused intervention for transdiagnostic child mental health challenges. To date, numerous studies have demonstrated positive results following this intervention across child and caregiver outcomes, including children's behaviour problems, caregiver self-efficacy, and child and caregiver positive coping (Cordeiro et al., 2022; Foroughe et al., 2019; 2023; Goveas et al., 2024; Sloss et al., 2025; Strahan et al., 2017; Wilhelmsen-Langeland et al., 2019). However, no studies have considered family functioning following brief EFFT workshops, which is a notable limitation, as the techniques from EFFT are expected to generalize across family members. Additionally, though

caregiver self-efficacy has been the subject of consistent evaluation, caregiver psychological distress has been largely overlooked in EFFT research (LaFrance et al., 2020). This study sought to address these gaps through a longitudinal analysis of family functioning in the year following a brief, virtual, two-day EFFT program.

Caregiver Psychological Distress in the Context of Children's Mental Health

Caregiver mental health and psychological distress are among the most studied predictors of children's psychological well-being. Research has demonstrated robust linkages between these constructs and children's mental health problems (both negative affect and behaviour problems), the parent-child relationship, and children's own trajectories of psychological distress (Goodman et al., 2009; Kamis, 2021; Smith, 2004). Caregiver psychological distress also plays a significant role in informing the effectiveness of caregiver interventions for children's mental health problems (Ansar et al., 2023; Maliken & Katz, 2013). Moreover, it is related to the quality of parenting practices, for better and for worse, within the parent-child relationship and can inform the degree of family-wide stress during crises (Borden et al., 2014, Masarik and Conger, 2017). Non-clinical (naturalistic) studies have demonstrated that it is a predictor of family functioning, as well (Pu & Rodriguez, 2024).

Caregiver psychological distress was negatively impacted during the initial years following the COVID-19 pandemic, with studies identifying higher rates of parent stress and mental health concerns, which predicted deteriorations in parenting behaviours (Yakub et al., 2024). Studies during this period also identified that children of caregivers with higher psychological distress had higher levels of anxiety (Thomson et al., 2023). Psychological distress is higher amongst caregivers facing mental health challenges, disability, and financial challenges, and levels of caregiver distress are higher when children present with both internalizing and

externalizing problems (Berg-Nielsen et al., 2002; Duchovic et al., 2009; Thomson et al., 2023). Altogether, these findings are consistent with the tenets of the family stress model, suggesting that caregiver distress is a multisystemic family phenomenon, arising from complex interactions between environmental, individual-specific, and family-wide factors, and casting a deleterious influence in terms of children's developmental outcomes, broadly defined (Masarik & Conger; 2017). Thus, it is an important factor to consider in the context of family-centered mental health interventions for children.

Expanding Outcomes in EFFT Research

In recent years, there has been a proliferation of attachment- and emotion-focused group caregiver-focused intervention programs such as brief EFFT, in addition to modalities such as Parent-Child Interaction Training (PCIT) and Tuning in to Kids (TIK; Havighurst et al., 2020). These approaches have developed in response to calls for clinical practice in child mental health care to increasingly apply family-wide, transdiagnostic, and trauma-informed lenses that maximize family resources in the recovery process (Buka et al., 2022; Everett et al., 2021). Following COVID-19, this arm of children's mental health services also saw a proliferation of parenting programs offered in a virtual format, to maximize service accessibility in the post-COVID world (Foroughe et al., 2021; Spencer et al. 2020).

EFFT is an attachment-focused and caregiver-involved intervention for children's mental health problems that emphasizes the role of parent-child co-regulation (LaFrance et al., 2020). This transdiagnostic approach can be used for a wide variety of presenting concerns across childhood, adolescence, and young adulthood. Designed to be used as a standalone treatment or in tandem with other services, brief 2-day caregiver EFFT workshops are one widely accessible and increasingly common format of this intervention (Foroughe et al., 2019). Research on brief

EFFT workshops has shown dynamic and enduring treatment gains, which remain up to a year following the program across children's mental health symptoms, caregiver self-efficacy, caregiving blocks, and positive caregiver perceptions of child negative affect (Cordeiro et al., 2022; Foroughe et al., 2019; 2023; Goveas et al., 2024; LaFrance et al., 2020; Wilhelmsen-Langeland et al., 2019). These putative treatment gains have been observed in caregivers with and without personal histories of childhood maltreatment, and across both in-person and virtual forms of this intervention, though the latter format has received less empirical attention (Cordeiro et al., 2022; Foroughe et al., 2023).

Based on the studies included within a review of emotion-focused caregiver interventions, caregiver mental health is often included as distal intervention outcome in child mental health programs of this nature; however, the broader family interpersonal context is seldom considered, and more research is needed to clarify how caregiver and family-level outcomes may fluctuate in relation to one another (Havighurst et al., 2020). Though child outcomes are an understandable focus of research in this domain, it remains unclear how whole-family dynamics change over time following such interventions, and whether changes at the family level are associated with caregiver psychosocial well-being. These identified limitations in the caregiver intervention literature have recently gained empirical attention within the sphere of EFFT research. For example, in a case study of separated co-parents of a child with behavioural difficulties, change in family functioning was observed in tandem with longer-term EFFT (Smith et al., 2023). Improvements have also been observed for caregiver resilience and positive coping skills (Sloss et al., 2025). These results are promising and suggest that there may be unidentified family-wide benefits associated with brief and virtual EFFT, representing another possible intervention target from emotion-focused caregiver intervention programs.

Family Functioning as an Outcome of Caregiver-Focused Interventions such as EFFT

Family relationships are inherently bidirectional and ever-evolving interactional systems, (Cox & Paley, 2003). Research has established that the “whole family” (or the ambient interpersonal environment created by all family members) can be understood as its own unique level of analysis; thus, family functioning represents an outcome that may be indirectly targeted by caregiver interventions (Eichelsheim et al., 2009; Otterpohl et al., 2020). Multilevel family research on the parent-child relationship has identified that, despite the bidirectional effects that caregivers and children have on one another, caregivers may have greater influence over the interpersonal tone of the family home than do children (Browne et al., 2015; Sokolovic et al., 2021). In this way, just as negative parenting practices, caregiver distress, and child mental health challenges can create threats to family-wide well-being, so might emotion-focused caregiver interventions represent an opportunity to mitigate caregiver distress, support positive parenting, and strengthen family relationships through psychoeducation and focused skills training. In essence, by teaching participants advanced caregiving techniques in response to children’s mental health concerns, caregiver-involved interventions for children’s mental health problems may offer relational benefits for children and caregivers that extend across multiple relational layers within the family system (Havighurst et al., 2020; Nelson et al., 2009; Zahl-Olsen et al., 2023).

The Current Study

To address the above-described gaps in the literature, this project explored changes in family functioning in the year following a brief and virtual EFFT intervention. Several hypotheses were developed: (1) there will be both stable between-family and within-family differences in family functioning (i.e., changes will also be observed over time), (2) on average,

families will improve over time, though there will be substantial between-family differences in the rates and patterns of improvement, (3) family functioning will be predicted by covariates, specifically, lower COVID-19 disruption, female gender, more than one caregiver in the family participating in the workshop, and fewer children in the home will be associated with higher baseline family functioning, and lastly, (4) higher caregiver psychological distress and parenting stress will be associated with lower baseline family functioning, and families with greater caregiver distress and parenting stress will improve more rapidly.

Methods

Participants

The sample for this study comes from a longitudinal cohort of caregivers in a major city in Ontario, Canada ($n = 159$) who participated in virtual 2-day Emotion-Focused Family Therapy (EFFT) workshops between September 2020 and November 2021. A small number of participants (6%) withdrew from the study, and their data was removed from the sample; the $n=159$ sample represents the final sample after removing the data from these participants. Reasons for withdrawal of study participation included not being happy with their experience at the workshop or finding the questionnaires unpleasant to complete, having no contact with their child, and/or change of interest in participating. A handful of participants ($<10\%$) had atypical participation in the study intervention, these were not removed from the sample; for more information about these caregivers, see Atypical Participation Analyses in the Appendix. Excluding participants who withdrew from the study, the dataset included 159 individual caregivers reporting on 264 children across 124 families. The workshops were open to more than one caregiver per family, and all caregivers participating in the program were invited to the accompanying research study. Accordingly, this sample includes 35 caregivers who were nested

within the same family and reported on the same children. Except where noted, in consideration of data non-independence, the data (and all presented results) were constrained to one reporting caregiver per family; please see *Sensitivity Analysis* below for more details about how data-non-independence was handled.

Participating caregivers were asked to report on up to four children in their household. Caregivers were asked to provide child age, gender, presenting concerns, and history of intervention for all children in the home (up to four per family), regardless of their need for mental health services. Represented children were differentiated by (a) the target child – for whom caregivers were primarily seeking services, and (b) that child’s siblings. Across the entire sample of families who agreed to participate, the age range of represented children was very large. Specifically, the average age of the child for whom caregivers were primarily seeking services (the target child) was 12.44 years old ($SD = 4.80$; range: 1.28 to 29.90 years) and the average participating caregiver had two children ($M = 2.11$, $SD = 0.77$). Except where specifically noted, all subsequent sample details, including Figure 1, the tables, and the methods, results, and discussions sections reflect families where the target child was aged 5-25 years, as reported by one caregiver per family ($n=117$). This decision was made in order to prioritize precision of estimates (which could be biased by adding dual caregivers from the same family) and generalizability of the study findings to the age group of primary interest. Consistent with the approach taken by Sloss and colleagues (2025), the specific age-range was selected in view of research that suggests that the age of adolescence should include youth up to 25 years of age and consideration that the role of EFFT techniques in the family system operate differently for infants and toddlers (Sawyer et al., 2018). While this age range is still large, it also reflects a significant strength of the EFFT model, as caregivers of children across diverse ranges can

benefit from the same workshop, as skills translate across the lifespan (not only to children of different ages, but to spouses, parents, in-laws, and so on). Additional justification for this approach is discussed in the Methods sections of Chapters 2 and 3.

Target children included cisgender boys (48%), one transgender boy (1%), cisgender girls (46%), and children who identified as gender non-conforming (5%). Related to children's presenting concerns, caregivers were asked to select from a list of challenges and identify those that were present for their child (all that apply), including: anxiety (76%), depression (46%), eating disorders (15%), behavioural dysregulation (55%), emotional/social/relationship concerns (68%), autism (6%), ADHD (32%), cognitive difficulties (11%), somatic complaints (15%), stress (43%), self-esteem challenges (60%), medical conditions (9%), abuse/trauma (14%), or other (9%). Further, caregivers were asked to report if their child had received any diagnoses. In this study, 42% of children had received a DSM-5-TR diagnosis, with most participants reporting a single diagnosis (Range: 0-7 DSM-5-TR diagnoses). Of those, 47% reported having one diagnosis, 18% had two diagnoses, and 26% had three or more diagnoses. The most common DSM-5-TR diagnoses were attention-deficit hyperactivity disorder (ADHD), specific learning disorder, generalized anxiety disorder, and depressive disorders (unspecified). Of the children in this sample, 70% had previously received mental health services, with a wide range in treatment duration (Range = 1-300 sessions, $M = 21$ sessions, $SD = 40$ sessions).

To be both consistent with literature in the field of EFFT and inclusive of all family types and role structures represented in this sample, the terms “caregiver” and “parent” are used interchangeably across the present dissertation to represent participants who are parents of a child in their care, broadly defined. Caregivers were asked to report which gender they most identified with; potential responses included woman, man, gender variant/non-conforming, trans

male, trans female, or other (please specify). In this sample, only one participant identified as gender variant/non-conforming; the analyses were conducted with-and-without this caregiver included and the pattern of results was identical. A binary variable was created with female gender coded as the reference category, with male gender and all other gender identities coded as 1. For consistency, child gender (discussed below) was coded with the same procedure.

Caregivers were also asked to identify the ethnic background that best represented them, their highest level of education completed, immigration or citizenship status, relationship status, the number of children under 18 years in their home, their relationship to the children represented in the study, whether they were living with those children, and their current monthly household income bracket ranging from \$0-\$1600 to \$8300+/month (Median = \$6,601 - \$8,300 CAD). Other demographic information for caregivers and the children they were primarily seeking services for is included in Table 1.

Table 1*Demographic Variables for the Study Sample*

Caregiver	%	Caregiver	%	Caregiver and Child	%
<u>Gender</u>		<u>Citizenship</u>		<u>Relation to Children</u>	
Male	11%	Canadian Citizen	94%	Children by birth (with current partner)	73%
Female	89%	Immigrant	2%	Blended families (child related to one caregiver)	22%
Gender non-conforming	1%	Permanent Resident	3%	Children by adoption	5%
<u>Ethnicity</u>		Non-Immigrant (Student or Work Visa)	1%	Extended family or kinship	3%
White	74%	Other	1%	<u>Target Child's Home Status</u>	
Black	3%	<u>Monthly Income</u>		Child at home full-time	82%
Hispanic	2%	\$0-\$1600	2%	Child at home part-time	13%
Pacific Islander	0%	\$1601-\$3300	6%	Child not living at home	5%
West Indian	1%	\$3301-\$5000	21%	<u>Age of the Target Child</u>	
Middle Eastern	1%	\$5001-\$6600	8%	5-12 years	58%
East Asian	6%	\$6601-\$8300	22%	13-18 years	38%
South Asian	11%	\$8300+	42%	19+ years	4%
Indigenous	3%	<u>Caregiver Relationship Status</u>		<u>No. Children under 18 at Home</u>	
Other	6%	Single caregiver, living alone with children	13%	One	26%
Hispanic	2%	Opposite-sex partners - Living apart	7%	Two	55%
<u>Education</u>		Opposite-sex partners - Living together	75%	Three	19%
High School Diploma or equivalent	4%	Same-sex partners - Living apart	1%	Four	1%
Trade Certificate/Diploma	1%	Other	4%		
College, CEGEP, or college certificate	17%				
University certificate	4%				
Bachelor's Degree	39%				
Certificate or Degree above Bachelor's	37%				

Procedure

Eligible caregivers were treatment-seeking caregivers participating in brief 2-day EFFT workshops at an outpatient community mental health practice in a large urban centre in Southern Ontario, Canada. As a clinical service offered by a licensed clinical psychologist, the workshops had a cost for each caregiver participating, with a family discount for the second caregiver's registration fee if more than one caregiver from the same family registered for the workshop. To this end, for families where two caregivers participated, the total cost was less than the standard cost of a 50-minute appointment with a licensed clinical psychologist in the province of Ontario.

During study development, consideration was given to how caregivers might experience the study and the invitation to report on their well-being, alongside that of their children and their partner (where applicable). All participants were informed about the nature of the study measures in the information letter. Since items pertaining to child functioning and behaviour can prompt distress for some caregivers (e.g., parents who notice a decline in child functioning), statements normalizing challenges in functioning, behaviour, and emotion regulation during times of stress (such as the COVID-19 pandemic) were also included in the questionnaires. Lastly, as a means of expressing gratitude and emphasizing the significant contributions their responses provided to the study of children and families, a letter of appreciation was emailed to families following the completion of each wave of data collection. To maximize the available data, if families were unable to complete data collection at a specific timepoint, they were still invited to participate in future waves of data collection (unless they specifically contacted the research team and requested to be withdrawn from the study).

Caregivers completed six waves of data collection, including pre-workshop measures, and post-workshop measures across five time points up to 12 months post-intervention (see Measures below). In an effort to maximize participant retention, at each time point where caregivers participated in completing the questionnaires, they were entered into a draw for a Walmart gift card. The value of the prize at each time point was incremental, starting at \$75 and increasing by \$25 at each subsequent time point with a final prize of \$200 (i.e., Time 1: \$100, Time 2: \$125, Time 3: \$150, Time 4: \$175, Time 5: \$200). As an incentive for families completing longer surveys (as a result of opting in to complete measures for more than one child in their family), caregivers with multiple children were offered an additional entry at each timepoint for each additional child they reported on. For example, at each timepoint, caregivers

reporting on themselves and a single child received one entry, caregivers reporting on themselves and up to two children received two entries, and so on. Digital gift cards were then emailed to the caregiver of the winning family at the end of each timepoint.

All caregivers were invited to participate in the workshop if they were caregivers of a child of any age. There were no other exclusion criteria for the study, which received clearance through the University of Waterloo Ethics Committee (#41875). At the time of registration for the workshops, participating caregivers were contacted in person or through email and provided with a research flyer, inviting their research participation, with accompanying registration details for caregivers that were interested. Informed consent was obtained electronically, and demographic measures were administered prior to the workshop. The program consisted of a live, two-day workshop provided to caregivers in a virtual, group format with a single-cohort design. Due to COVID-19 constraints and the high service needs for children's mental healthcare at the time of the study, all workshops were offered virtually, and all participants received the intervention.

Intervention Overview

The intervention consisted of a virtual, manualized, two-day group workshop geared towards individuals seeking advanced caregiving skills to support family relationships and the mental health of their children. Caregivers were taught principles in relation to four foundational EFFT techniques and principles, including: (1) *emotion coaching*: equip caregivers with the skills to model emotion regulation and assist their child(ren) as emotion coaches, (2) *behaviour coaching*: empower caregivers to become behaviour (or recovery) coaches for their children by applying symptom interruption and behavioural intervention skills, (3) *therapeutic apology*: assist caregivers in relationship repair through the teaching, demonstration, and practice of a

technique called the therapeutic apology, and (4) *caregiver blocks*: provide caregivers the opportunity to practice workshop skills and process their own reactions and experiences (emotional blocks) that may inhibit the effective implementation of components 1-3.

The workshops followed a standardized format that was maintained across all eleven offerings during the study period. They were facilitated by a clinical psychologist certified as an EFFT trainer, who was also directly trained by the cofounders of EFFT. Workshops were delivered live and included audiovisual aids, slideshow materials, and takeaway resources that were provided to participants. The trainings involved psychoeducation, consultation with the facilitator in the group setting, in vivo skills practice with feedback, and opportunities for peer support. In terms of content, the workshops included an overview of attachment-focused parenting and the theoretical overview of the EFFT model, including evidence-based psychoeducation regarding the benefits of caregiver involvement in youth mental health care. Caregivers were supported in identifying goals for both their child's and their own behaviour/emotional responding. Aligned with the "no blame" and de-pathologizing stance of EFFT, caregivers were taught about the multiplicity of factors that contribute to the development and maintenance of mental health challenges and they were invited to learn "advanced caregiving strategies" to support their child's recovery (i.e., mental health challenges in children are not caused by caregivers *and* the attachment relationship is such that caregiver involvement is especially valuable in the recovery process). Specific content also included a thorough review of emotion theory, the "Superfeeler" framework for understanding emotional sensitivity in children, behavioural and emotional response styles within parenting, understanding blocks to care, caregiving dimensions (shame- vs fear-based parenting), how to best support change in children's behaviours, and scripts for emotion coaching, behaviour coaching, and relational repair (with accompanying practice

exercises). Additional details about the workshops are discussed by Foroughe and colleagues (2019) and Lafrance Robinson and colleagues (2014).

Measures

At pre-workshop baseline (Time 0), immediately post-workshop (Time 1), and 1-, 3-, 6-, and 12-months post-workshop (Times 2-5), caregivers completed several assessment questionnaires.

Pandemic-related Stress. To assess for pandemic-related disruption, caregivers were asked to complete the COVID-19 Family Stressor Scale (CoFaSS, Prime et al., 2021) at the study baseline (Time 0). The CoFaSS is a 16-item measure assessing three domains of pandemic-related stress including environmental chaos, income-related impacts, and family relationships. Participants responded to all items on a three-point Likert scale from (1) *Not true* to (3) *Very true*, based on how well each item captured their lived experiences during the pandemic. The internal consistency of the CoFaSS was good ($\alpha = .83$).

Family Relationships. To assess family functioning, caregivers were asked to complete the General Functioning subscale (GF6+) of the McMaster Family Assessment Device (FAD; Boterhoven de Haan et al., 2015). This six-item measure includes items measuring family connectedness, mutual support, emotional expression, and problem solving, on a 4-point scale (*Strongly Disagree* to *Strongly Agree*). Scores were then averaged for interpretation (1.0 to 4.0) where scores of 2.0 and higher reflect “unhealthy” family relationships, and scores below 2.0 suggest “healthy” family functioning). The internal consistency of this measure was good-excellent across all six timepoints (range: $\alpha = .84-.93$).

Caregiver Mental Health. As a measure of general mental health, caregivers were asked to complete the Kessler Psychological Distress Scale a (K10; Kessler et al, 2002). This 10-item

scale measures caregiver experiences of psychological stress including low mood and hopelessness, nervousness, and somatic symptoms, among others. Participants were asked to report their experiences during the last 30 days on a 5-point Likert scale, with responses ranging from 1- *None of the time* to 5-*All of the time*, with higher scores indicating a greater degree of psychological distress (clinical cut-off: 20). The internal consistency of the K10 was good-excellent across all six timepoints (range: $\alpha = .85-.92$).

Parenting Stress. Caregivers in the study were asked to report on the level of parenting stress that they experienced in the last two weeks for the target child using a single item with responses ranging from 1-*Not at all stressful* to 7-*Extremely Stressful* (Hartley et al., 2018). When the analysis was run with parenting stress for the target child only and then with parenting stress as an average across all children in the home, the pattern of results was the same. To maintain the focus of the analysis on target children for which caregivers sought services, only parenting stress data from the target child was included in this analysis.

Data Analysis

A multilevel modelling approach was used to complete growth curve analysis in RStudio with the *lme4* package (Bates et al., 2015). The data had two levels: Repeated measures (Time - Level 1) were nested within caregivers (Participants - Level 2). Intra-class correlation coefficients were used to explore variance partitioning across levels, which were then compared across models. Models were run and fitted with restricted maximum likelihood (REML) and compared with a likelihood ratio test. First, in the null model, intra-class correlation coefficients were used to identify the pattern of variance partitioning across levels of the model. Next, an unconditional growth model was used to measure linear, quadratic, and cubic change in the sample over time. Time was quantified by months, where the first observation represented pre-

intervention baseline (0 months) and the intervention was completed one week after. Linear models were run with a random intercept and fixed effect of time, and then a random intercept and random effect of time. Quadratic and cubic terms were added to the model to assess non-linear change. Subsequently, time invariant covariates were added to the model as main effects, followed by time-varying predictors. Finally, cross-level interaction terms were added to explore the extent to which substantive predictors (caregiver psychological distress, parenting stress) modified trajectories of change over time.

Missing Data

Using the metric of +/- 3 standard deviations from the mean for univariate outliers, a small number of outliers were Winsorized (0-2 cases (1.7%)). Using Mahalanobis Distance (n=88 after listwise deletion) to assess for multivariate outliers, one multi-variate outlier was identified at the $p < .001$ level, reflecting a case where the participant experienced a substantial decrease and subsequent increase in parenting stress scores from the highest to the lowest end of the scale (1-7) repeatedly across all six time points. When analyses were run with and without this case in the dataset, the pattern of results was identical across all models except for Model 7b, where instability of the parenting stress predictor was observed in the sample with the outlier; thus, this case was removed from the analysis.

Little's (1998) Missing Completely at Random (MCAR) test was run, and a significant result was found, suggesting that the MCAR assumption was rejected, and that data was not missing completely at random, $\chi^2(240) = 343.90, p < .001$. After visual inspection of the dataset, missing data appeared to be the result of attrition over time, which is common in longitudinal studies of this duration. Retention across all six time points of the study was very good (>86 % across core study variables from T0-T5 (FAD, K10, and Parenting Stress; for more information,

please see the Appendix). To adjust for bias due to missingness, non-parametric missing-value imputation with the *missForest* package was used; this approach outperforms multiple imputation in reducing bias and ensures that nested models would have a consistent sample size, permitting nested model comparison (Stekhoven, 2022). Continuous predictor variables were grand-mean centred (except for time, where 0 is a meaningful value). Analyses were preregistered: <https://osf.io/bn3jq>.

Sensitivity Analyses for Age and Data Non-Independence

The analysis was completed in two stages: First, given the large age range for target children (1-29 years) represented in this sample, an age-filter was applied to the data and the analyses were run including only caregivers representing target children who were 5-25 years of age, and with only one caregiver representing each family ($n=117$). All presented results reflect this sample, except where labelled as sensitivity analyses. Subsequently, sensitivity analyses were then run with the full sample, including children of any age and additional caregivers nested within the same family, excluding an outlier ($n=158$, see the Appendix). This approach was taken to avoid estimating a cross-classified multilevel model, which would significantly increase complexity, but only apply to 35 of the respondents. Across both samples, the pattern of results was the same and when the intraclass correlations (ICCs) were compared between samples, the confidence intervals overlapped, suggesting that adding these participants did not result in statistically significant differences in the degree of variance accounted for by each level of the model. Finally, when model fit statistics were compared, the pattern was consistent across samples. This is likely attributable to most children being around 12.44 years old ($SD = 4.80$), and very few youths on extreme tails of the age distribution.

Results

Descriptive statistics can be found in Table 2, and bivariate correlations, in Table A2 in the Appendix.

Table 2

Descriptive Statistics for Study Variables

	Time 0	Time 1	Time 2	Time 3	Time 4	Time 5
	M (SD)					
COVID-19 Disruption	27.45 (6.01)	-	-	-	-	-
Parent Psychological Distress (K10)	21.64 (6.40)	21.77 (5.91)	19.99 (6.05)	20.75 (6.64)	19.77 (5.87)	19.34 (6.70)
Parenting Stress	4.84 (1.48)	4.62 (1.17)	3.99 (1.54)	3.72 (1.25)	2.95 (1.57)	3.54 (1.58)
Family Functioning (FAD)	2.02 (0.48)	1.95 (0.43)	1.85 (0.45)	1.79 (0.49)	1.77 (0.52)	1.82 (0.51)

Note: FAD = Family Assessment Device, K10 = Kessler Psychological Distress Scale. For all scales: Higher scores suggest greater challenges.

Question 1: What proportion of variability in family functioning is attributable to stable between-caregiver differences vs. within-caregiver change?

The ICCs from the null model (Model 0) reflect variance in FAD scores attributable to stable between-caregiver differences relative to total variance (see Table 3). In the null model, 59% of the variance in family functioning was accounted for by individual differences across caregivers, while 41% was due to within-caregiver change over time (including measurement error). The significant variance observed at the individual level indicates that there were stable between-caregiver differences in reports of family functioning, irrespective of time. Similarly, the significant within-caregiver variance at the level of time (including error) demonstrates that participating caregivers experienced changes in family functioning over time following the intervention (irrespective of differences between participants in the sample).

Table 3

Intraclass Correlation Coefficients (ICCs) of the Multilevel Model Output Examining Individual Trajectories of Family Functioning

<i>Variance (ICC)</i>	Model 0 (Null)	Model 1 (Time - Linear)	Model 2 (Time - Random Slope)	Model 3 (Time - Quadratic)	Model 4 (Time - Cubic)	Model 5 (Co-variates)	Model 6 (Predictors)	Model 7a (Interactions - Parenting)	Model 7b (Interactions – Family Size)
Level 2 - Individual	59%*	60%*	64%*	66%*	66%*	65%*	64%*	64%*	64%*
Level 1 - Time	41%*	40%*	36%*	34%*	34%*	35%*	36%*	36%*	36%*

Note: Adjusted ICCs reported.

Question 2: What are the trajectories of family functioning pre- vs. post-intervention?

When Model 1 was run (linear fixed effect of time), the intercept reflected a level of family functioning within, but at the cusp, of the non-clinical range ($b = 1.93$, $SE = 0.04$, $p < .001$; see fixed and random effects in Tables 4 and 5). There was a significant and negative coefficient for time (i.e., FAD scores decreased; $b = -0.01$, $SE = 0.003$, $p < .001$); this result reflects that family functioning improved from baseline in the months following the intervention. Using partial eta-squared (which isolates the specific variance associated with each independent variable within a model, holding all others constant), this result was consistent with a small effect size ($\eta^2=0.03$; Correll et al., 2021).

When time was added to the model with a random slope (permitting separate trajectories for everyone; Model 2), the random slope was significant, demonstrating that individual families differed in their trajectories of family functioning. Nelder Mead optimization was used to achieve convergence in Models 2, 3, and 5, as recommended by rrdr.io (2024); the results were substantively identical with and without this addition to model estimation. Models 3 and 4 were run to explore the overall shape of the trajectory of change in family-functioning post-intervention. As the highest-order term that was significant, Model 4 identified that the data was consistent with a cubic (i.e., a horizontal s-shaped) trajectory ($b = -0.001$, $SE = 0.0003$, $p < .01$), with a small effect size ($\eta^2=0.02$). This result demonstrates a trend of initial and immediate improvement post-intervention (i.e., a reduction in FAD scores), followed by a slight change in trajectory around 6 months post-intervention (towards worse family functioning), which attenuated over time, and resumed on a trajectory of improvement. On average, across time, family functioning scores did not rise to the level measured at the pre-intervention baseline (i.e., despite the fluctuations throughout the course of the year post-intervention, change was generally

maintained over time; see Figure 1). That said, there is substantial between-caregiver fluctuations in family functioning.

Questions 3 and 4: What predictors are associated with baseline family functioning and its pattern of change over time?

When time invariant covariates were added to the model as fixed effects (Model 5), only baseline COVID-19 disruption was significant, such that higher disruption at Time 0 was associated with lower baseline family functioning (reflected in higher FAD scores, $b = 0.02$, $SE = 0.01$, $p = .001$), with a medium effect size ($\eta^2 = 0.09$). For the other covariates, whether one or more caregivers participated in the workshop, the number of children in the home, and the gender of the participating caregiver was not significantly associated with baseline family functioning ($ps > .05$). In Model 6, where primary independent variables were added, both caregiver psychological distress (K10 scores) and parenting stress for the target child were significantly associated with worse family functioning, such that higher psychological distress ($b = 0.01$, $SE = 0.003$, $p < .001$) and parenting stress related to the target child ($b = 0.03$, $SE = 0.01$, $p < .01$) were both associated with lower family functioning (i.e., higher FAD scores). These were small effects ($\eta^2 = 0.02$ and 0.01 (respectively)). Finally, in Model 7a cross-level linear interactions (between Participants (Level 2) and Time (Level 1)) were run to explore the relationship between both caregiver distress and parenting stress and their relationship to change in family functioning over time as a linear trajectory. Both interaction terms were non-significant ($ps > .05$). Thus, the observed post-intervention fluctuations in family functioning were not predicted by time-varying changes in these two areas of caregiver well-being.

Table 4*Fixed Effects of the Multilevel Model Output Examining Individual Trajectories of Family Functioning*

	Model 0 (Null)	Model 1 (Time - Linear)	Model 2 (Random Effect of Time - Linear)	Model 3 (Time -Quadratic)	Model 4 (Time - Cubic)	Model 5 (Covariates)	Model 6 (Predictors)	Model 7a (Interactions - Parenting)	Model 7b (Interactions – Family Size)
<i>Fixed Effects</i>	<i>B [CI]</i>	<i>B [CI]</i>	<i>B [CI]</i>	<i>B [CI]</i>	<i>B [CI]</i>	<i>B [CI]</i>	<i>B [CI]</i>	<i>B [CI]</i>	<i>B [CI]</i>
Intercept	1.88*** [1.81, 1.95]	1.93*** [1.85, 2.00]	1.93*** [1.85, 2.00]	1.98*** [1.90, 2.05]	2.01*** [1.93, 2.08]	1.98*** [1.76, 2.20]	1.99*** [1.77, 2.21]	1.99*** [1.78, 2.21]	1.93*** [1.71, 2.15]
Time in Months	-	-0.01*** [-0.02, -0.01]	-0.01*** [-0.02, -0.01]	-0.06*** [-0.08, -0.04]	-0.13*** [-0.17, -0.08]	-0.13*** [-0.17, -0.08]	-0.13*** [-0.17, -0.08]	-0.13*** [-0.17, -0.08]	-0.11*** [-0.16, -0.06]
Time in Months ²	-	-	-	0.004*** [0.003, 0.01]	0.02*** [0.01, 0.03]	0.02*** [0.01, 0.03]	0.02*** [0.01, 0.03]	0.02*** [0.01, 0.03]	0.02*** [0.01, 0.03]
Time in Months ³	-	-	-	-	-0.001** [-0.002, -0.0003]	-0.001** [-0.001, -0.0003]	-0.001** [-0.002, -0.0003]	-0.001** [-0.002, -0.0003]	-0.001** [-0.002, -0.0003]
COVID Stressors	-	-	-	-	-	0.02** [0.01, 0.03]	0.01* [0.004, 0.03]	0.01* [0.004, 0.03]	0.01* [0.003, 0.03]
More than one Caregiver	-	-	-	-	-	0.10 [-0.05, 0.25]	0.10 [-0.05, 0.25]	0.10 [-0.05, 0.25]	0.10 [-0.05, 0.25]
Number of Children	-	-	-	-	-	-0.001 [-0.10, 0.01]	-0.01 [-0.10, 0.09]	-0.01 [-0.11, 0.09]	0.02 [-0.07, 0.12]
Caregiver Gender	-	-	-	-	-	0.01 [-0.21, 0.22]	0.01 [-0.20, 0.21]	0.01 [-0.20, 0.21]	0.01 [-0.20, 0.21]
K10	-	-	-	-	-	-	0.01*** [0.004, 0.02]	0.01** [0.004, 0.02]	0.01*** [0.005, 0.02]
Parenting Stress (PS)	-	-	-	-	-	-	0.03** [0.01, 0.05]	0.03* [0.000, 0.02]	0.03** [0.01, 0.06]
K10*Months	-	-	-	-	-	-	-	-0.000 [-0.001, 0.001]	-
PS*Months	-	-	-	-	-	-	-	0.002 [-0.002, 0.006]	-
Number of Children *Months	-	-	-	-	-	-	-	-	-0.01* [-0.02, 0.002]

Note. * $p < .05$ ** $p < .01$ *** $p < .001$ or a statistically significant difference. K10 = Kessler Psychological Distress Scale.

Caregiver psychological distress, parenting stress, and baseline COVID disruption were centred at their mean. B = beta, CI = 95% confidence intervals.

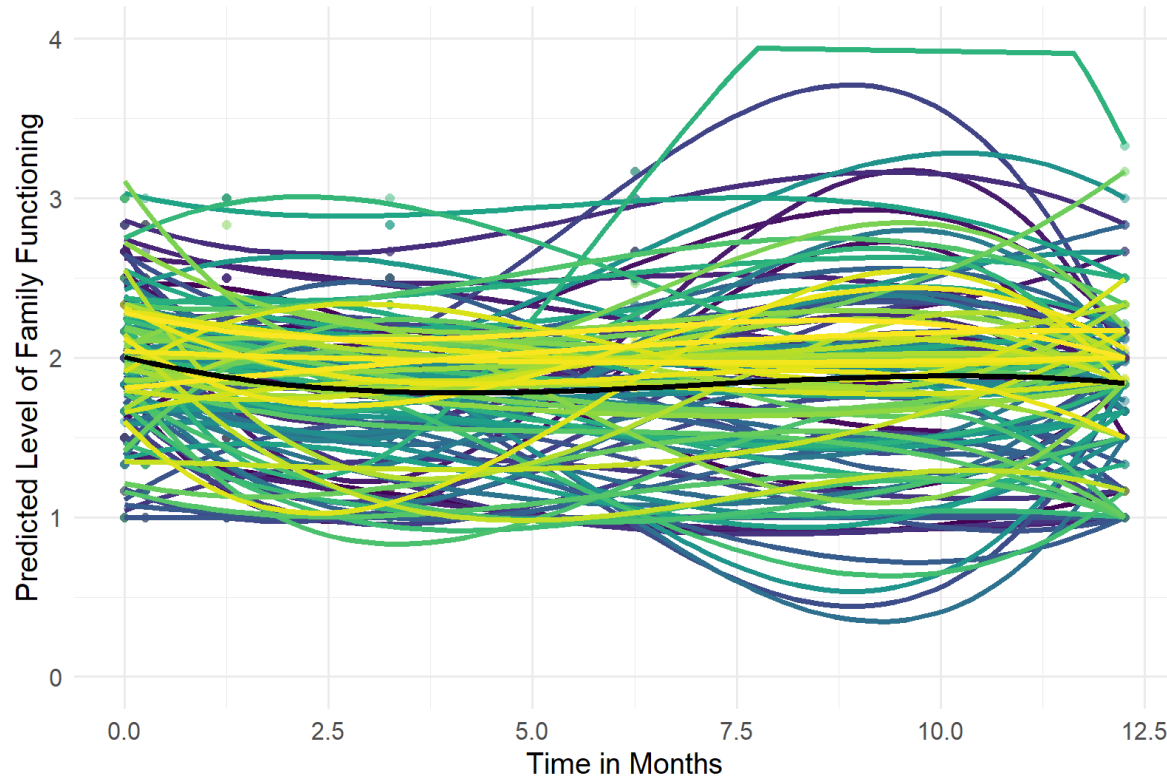
Table 5*Random Effects of the Multilevel Model Output Examining Individual Trajectories of Family Functioning*

	Model 0 (Null)	Model 1 (Time - Linear)	Model 2 (Random effect of Time, Linear)	Model 3 (Time - Quadratic)	Model 4 (Time - Cubic)	Model 5 (Covariates)	Model 6 (Predictors)	Model 7a (Interactions - Parenting)	Model 7b (Interactions – Family Size)
<i>Random Effects</i>	<i>SD [95% CI]</i>	<i>SD [95% CI]</i>	<i>SD [95% CI]</i>	<i>SD [95% CI]</i>	<i>SD [95% CI]</i>	<i>SD [95% CI]</i>	<i>SD [95% CI]</i>	<i>SD [95% CI]</i>	<i>SD [95% CI]</i>
Level 2 (Participants)									
Random Intercept	0.37* [0.32, 0.42]	0.37* [0.32, 0.42]	0.37* [0.32, 0.43]	0.37* [0.32, 0.43]	0.37* [0.32, 0.43]	0.35* [0.30, 0.40]	0.35* [0.29, 0.40]	0.35* [0.39, 0.40]	0.35* [0.29, 0.40]
Level 1 (Time)									
Random Intercept	0.31* [0.29, 0.33]	0.30* [0.29, 0.32]	0.28* [0.27, 0.30]	0.28* [0.26, 0.29]	0.27* [0.26, 0.29]	0.27* [0.26, 0.29]	0.27* [0.25, 0.29]	0.27* [0.25, 0.29]	0.27* [0.25, 0.29]
Random Slope	-	-	0.02* [0.01, 0.03]	0.02* [0.02, 0.03]	0.02* [0.02, 0.03]	0.02* [0.02, 0.03]	0.02* [0.01, 0.03]	0.02* [0.01, 0.03]	0.02* [0.01, 0.03]
Correlation between Level 2 Intercept and Level 1 Slope	-	-	-0.13 [-0.41, 0.20]	-0.15 [-0.41, 0.16]	-0.15 [-0.41, 0.16]	-0.12 [-0.36, 0.24]	-0.18 [-0.41, 0.22]	-0.13 [-0.41, 0.23]	-0.11 [-0.39, 0.24]

Note. * $p < .05$, or a “statistically significant difference.” *CI* = Confidence Intervals; *SD* = Standard deviation

Figure 1

Model-Predicted Individual-Level Cubic Trajectories of Family Functioning over Time



Note. The dots depict the scores of individual participants at each wave of measurement. Each coloured line represents the predicted individual trajectory for that participant. The black trend line in the center of the graph represents the mean predicted trajectory across the sample. For the FAD, lower scores are suggestive of higher family functioning, and higher scores are suggestive of lower family functioning.

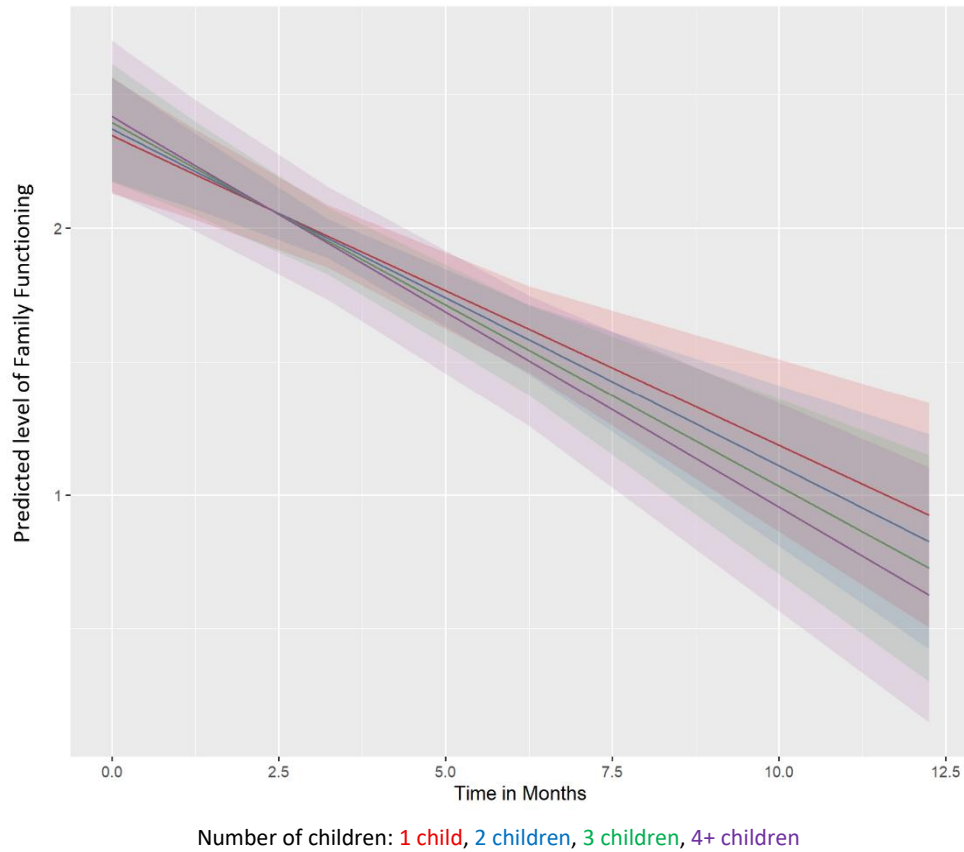
Exploratory Analyses

As an exploratory test, replacing the interactions in Model 7a (to free up model parameters), other iterations of this model were tested with an interaction between the linear trajectory of time and each of the covariates. A significant interaction with a small effect size ($\eta^2=0.05$) was found between time and the number of children in the home. Families with more children improved at a faster rate in family functioning over time (reflected by lower FAD scores at T5, $b = -0.01$, $SE = 0.004$, $p < .05$), relative to families with fewer children. This model was

called Model 7b; for a visualization of the interaction, see Figure 2. To probe if this interaction would be maintained with cubic trajectory of time, linear, quadratic, and cubic interactions were added to the model (removing the non-significant covariates to free up parameters) and the effect was not maintained ($ps > .05$). Whether more than one caregiver participated in the workshop (Model 7c), the gender of the participating caregiver (Model 7d), and baseline COVID-19 disruption (Model 7e) did not significantly predict changes in family functioning over time ($ps > .05$). Next, target child age (Model 7f) was added to the model as a predictor and in an interaction with time, both of which were non-significant ($ps > .05$). When fit statistics were compared across models through a chi square likelihood ratio test (as outlined by Bates and colleagues, (2015)), Model 7b (Interactions - Family Size) was the model that best fit the data (see Tables 6a and 6b).

Figure 2

Interaction between Time and the Number of Children on Trajectories of Family Functioning over Time



Note. For the FAD, scores range from 0-4; lower scores are suggestive of higher family functioning, and higher scores are suggestive of lower family functioning.

Table 6a

Model Fit Statistics from Multilevel Continuous Growth Model Output Examining Individual Trajectories of Family Functioning

<i>Model No./ Fit Statistic</i>	Model 0 (Null)	Model 1 (Time - Linear)	Model 2 (Time as a Random Slope)	Model 3 (Time - Quadratic)	Model 4 (Time - Cubic)	Model 5 (Covariates)	Model 6 (Predictors)	Model 7a [°] (Interactions - Parenting)	Model 7b [°] (Interactions - Family Size)
AIC	603.21	586.79	576.96	549.68	542.90	538.39	515.26	518.36	511.82
BIC	616.87	605.01	604.29	581.55	579.33	593.03	579.01	591.22	580.13
Log-likelihood	-298.60	-289.39	-282.48	-267.84	-263.45	-257.19	-243.63	-243.18	-240.91
χ^2	-	18.42	13.82	29.29	8.77	12.51	27.13	0.89	5.43
<i>df</i>	-	1	2	1	1	4	2	1	1
<i>p</i>	-	<.001***	<.001***	<.001***	0.003**	0.013*	<.001***	0.64	0.02*
Number of Parameters	3	4	6	7	8	12	14	16	15

Note. AIC - Akaike's Information Criterion, BIC = Bayesian Information Criterion. For interpretation: Lower AIC and BIC values indicate a better fit, as do higher Log Likelihood values. *df* represents the number of additional parameters added to the current model, compared to the previous nested model.

[°]Statistics for both versions of Model 7 respectively reflect comparisons between Model 6 and 7a, and Model 6 and 7b given that 7a and 7b are not fully nested.

* $p < .05$, ** $p < .01$, *** $p < .001$, or a “statistically significant difference.”

Table 6b

Model Fit Statistics from Multilevel Continuous Growth Model Output Examining Individual Trajectories of Family Functioning

<i>Model No./ Fit Statistic</i>	Model 7c[°] (Interaction - More than One Caregiver)	Model 7d [°] (Interaction - Caregiver Gender)	Model 7e[°] (Interaction - COVID-19)	Model 7f [°] (Interaction - Child Age)
AIC	517.25	517.20	514.78	513.13
BIC	585.56	585.51	583.09	585.99
Log-likelihood	-243.62	-243.60	-242.39	-240.56
χ^2	0.01	0.06	2.47	6.13
<i>df</i>	1	1	1	2
<i>p</i>	0.93	0.81	0.12	0.047*
Number of Parameters	15	15	15	15

Note. In each of the above models, each specified variable was added to the model as an interaction with linear time. AIC - Akaike's Information Criterion, BIC = Bayesian Information Criterion. For interpretation: Lower AIC and BIC values indicate a better fit, as do higher Log Likelihood values. *df* represents the number of additional parameters added to the current model, compared to the previous nested model. [°]Chi-square statistics for all versions of Model 7 respectively reflect comparisons between Model 6 and the selected model, given that the iterations of Model 7 are not fully nested. * $p < .05$, ** $p < .01$, *** $p < .001$, or a “statistically significant difference.”

Discussion

The present study sought to explore changes in family functioning in the year following a brief and virtual EFFT workshop for caregivers of children facing mental health challenges. The following insights were gleaned from results: (1) family functioning is both a stable (between-caregiver) and time-varying construct, (2) following virtual brief EFFT, families experienced positive changes in family relationships that were maintained up to 12 months post-intervention, and (3) caregiver-specific and pandemic-related environmental stressors are linked to family functioning irrespective of time, while family size predicted post-intervention treatment gains.

Family Functioning as a Stable and Time-Varying Process

Following brief virtual EFFT intervention, significant variation in family functioning was observed at the between and within caregiver level. That is, caregivers differed from one another in their reports of interpersonal dynamics in the home, above and beyond the within-person differences resulting from change over time and measurement error. The observed variance at both levels of the model suggests that family functioning is unique to each caregiver (reporting on their family) *and* a flexible interpersonal process that is amenable to change. Though there are both genetic and environmental processes informing psychological well-being and family functioning, study findings suggest that there are likely environmentally induced changes in family functioning that occur throughout the one-year follow-up period (Jami et al., 2021). Thus, in addition to being a relatively stable characteristic of families, family functioning is a flexible, time-varying quality of the family unit that is informed by caregiver- and child-specific factors. At the same time, it is important to note that perceptions of family life can differ depending on the informant within each family unit, as has been demonstrated in multi-informant studies, including those that have employed the same measure used in the current study (Georgiades et al., 2008; Jenkins et al., 2009; Sianko & McDonell, 2020). As the present study relied on caregiver reports, it is important that future studies of family functioning in the context of EFFT employ a multi-informant approach, utilizing perspectives of both caregivers and children.

EFFT as a Therapeutic Tool for Family-Wide Care

Results of this study document changes in family functioning around the time frame of a brief, virtual EFFT intervention. In this study, a cubic-shaped improvement in family functioning was maintained up to 12 months post-intervention. This pattern of change reflects a trend of initial treatment gains in the health of family relationships, as rated by caregivers, followed by a

slight deterioration around 6 months post-intervention, which attenuated and continued a trajectory of improvement. Despite the observed fluctuations throughout the course of the year following the treatment program, positive changes were maintained, and the reduction in treatment gains did not reach the level measured at the pre-intervention baseline, on average. These findings overlap with the results of two existing studies that have demonstrated positive family-level outcomes following longer-term emotion-focused interventions (i.e., positive gains in family functioning following an 8-week case study of EFFT with a single couple (Smith et al., 2023), and gains in emotional family climate following the 6-week Tuning in to Kids program for caregivers, which focuses on bolstering child emotion competence (Havighurst et al., 2025; Otterpohl et al., 2020). In view of the growing evidence base for EFFT, short-term interventions have been associated with gains in areas of well-being that are directly targeted by the intervention (children's mental health and caregiver self-efficacy; Foroughe et al., 2023; Goveas et al., 2024), in addition to those that pertain to broader interpersonal dynamics, as in the present case, general family functioning. Additionally, the cubic post-intervention trajectory of family functioning that was identified in this study (a horizontal "s-shaped" pattern of waxing and waning symptoms over time) also mirrors the pattern of post-intervention change observed in caregiver self-efficacy and children's behaviour problems by Foroughe and colleagues (2023) with the same intervention delivered in-person. These results are consistent with the family-wide applications of EFFT as a transdiagnostic and relationally focused treatment approach (LaFrance et al., 2020). Though this study cannot conclude how participants would have fared without any intervention, the first randomized clinical trial of EFFT is currently underway and includes an evaluation of parenting stress and parent-child relationship functioning following longer-term EFFT (Seddon et al., 2025).

The brief EFFT program was designed to support caregivers in learning advanced caregiving strategies to boost their sense of self-efficacy in managing their child(ren)'s mental health concerns. This intervention could have improved caregivers' overall sense of well-being through an enhanced sense of effectiveness and reduced stress in parenting, which may have helped mitigate broad interpersonal tensions across other relationships, benefitting all members of the family unit. Similarly, caregivers might have also been flexible in applying EFFT strategies to approach their own emotions, teaching them to their partner or other children in the home, effectively modelling an emotionally validating and supportive home environment or family culture (Hajal et al., 2020). These hypotheses would align with findings from Reed and colleagues (2023) who demonstrated an association between lower family functioning and mental health-related quality of life in caregivers of children with a mental health challenge. Thus, the broader interpersonal climate of the family system may have experienced an indirect benefit from this caregiver intervention, in much of the same way that the intervention was expected to benefit more focal child outcomes (mental health symptoms), despite that children did not directly participate in treatment (Zahl-Olsen et al., 2023). Overall, these findings are consistent with the goals of EFFT as an orientation anchored in parent-child co-regulation techniques, which is intended to galvanize the parent-child relationship as a vehicle for both relational recovery and the amelioration of child mental health concerns (LaFrance et al., 2020).

Family-Wide & Caregiver Factors in Treatment

In this study, families who were experiencing a higher level of disruption due to COVID-19 demonstrated lower levels of baseline family functioning and/or families with lower baseline functioning experienced COVID-19 as more disruptive. This result overlaps with findings from a meta-analysis on caregiver well-being by Racine and colleagues (2021) and those from a

systematic review of the COVID-19 Family Disruption Model (FDM; Shoychet et al., 2023). Collectively, these reviews have suggested that COVID-19-induced disruptions in caregiver mental health may have reflected broad changes in relational dynamics at the family-level, which in turn, created an environment where families lacked the necessary support and resources to maintain levels of well-being in the face of ongoing and multisystemic strain. Interestingly, whether families had one or more caregiver participating in the workshop and the gender of the participating caregiver did not significantly predict baseline or post-intervention family functioning. It may be that in dual-caregiver families, the participating caregiver modelled or shared the principles and resources they acquired with the non-participating caregiver, effectively multiplying the impact of the intervention.

With regard to family size, the observed interaction between the number of children in the home and family functioning over time may reflect a positive contagion effect as caregivers began to implement advanced skills (Canzi et al., 2023). Aligned with family functioning research during the pandemic and family systems theory, families with more children, who also invested in their relationships with one another by using EFFT techniques, may have been especially poised to respond well to this intervention. Considering positive “spillover effects,” if caregivers of larger families applied EFFT techniques in the home, their modelling would have been observed not only by the target child but also their siblings, adding to the number of potential “ports of entry” by which this intervention strengthened family relationships (Canzi et al., 2023; Nelson et al., 2009; Sameroff, 2005). Finally, though the absence of significant gender differences could suggest that all caregivers experienced similar gains in family functioning following the intervention, the null result in this area could also reflect the underrepresentation of male and gender non-conforming caregivers (12%). Previous research has demonstrated smaller

effect sizes in parenting and child behaviour outcomes for fathers compared to mothers following caregiver interventions, a challenge which may be partially due to the general overrepresentation of mothers in programs of this nature and parenting research more generally (Everett et al., 2021; Tully et al., 2017).

Finally, regarding caregiver-specific factors, parenting stress and caregiver distress did not significantly predict patterns of change in family functioning following the EFFT intervention, demonstrating that family relationships improved across the sample regardless of caregivers' ongoing level of reported challenge in these areas. It is possible that the nature of the intervention, which is sensitive to the role of caregiver mental health and stress in the promotion of family-wide change, was indeed equally effective in supporting all families. Relatedly, the study period was during a historical time where there was an unusually high amount of stress for families, thereby attenuating the capacity for these factors to modify trajectories. Conversely, it could be that there were such sizable and significant main effects of these variables on baseline family functioning, leaving little room for these variables to serve as moderators. At the same time, there was substantial variability in caregiver-reported trajectories of family functioning that was not explained by the variables included in the present study. Future studies might consider exploring other processes that may account for differential responses in the year following EFFT interventions, including the employment of dynamic modeling techniques that are capable of modeling stochastic change and sudden gains. Despite the absence of these interactions, results still affirm the family stress and systems theory frameworks, by demonstrating that the interpersonal climate in the family is co-constructed by interpersonal dynamics (parent-child interactions and parenting stress), individual factors (caregiver general psychological distress)

and the broader family-wide environment (COVID-19 disruption and family size) in the year following EFFT interventions (Cox & Paley, 2003; Masarik & Conger, 2017).

Future Directions and Clinical Applications

A primary limitation of this study is the absence of a control group, which precludes conclusions about the effectiveness of brief EFFT compared to receiving no other treatment. This study design choice was made given the timing of the project during the COVID-19 pandemic, where maximization of available mental health services for children and families was prioritized, in view of the high unmet service needs in the community at that time. That said, a waitlist control group with more than one pre-intervention measurement may have also been feasible and offered a comparison of change within participants over time, before they had participated in the EFFT workshop. However, the first randomized controlled trial of EFFT is currently underway by other researchers and is anticipated to compliment and extend these results (Seddon et al., 2015). Furthermore, one of the strengths of this study is the sophistication of the analytical approach, which allowed for disentangling between vs. within caregiver variance in family functioning. In future studies, it would be beneficial to measure family-level outcomes from a multi-informant perspective (i.e., children and caregivers both reporting on family functioning), particularly when exploring longer-term EFFT where both children and caregivers participate in the intervention. Such an approach would allow for the disentangling of variance at both the individual and family level, providing an understanding of how perceptions of family functioning may fluctuate across individuals within a family system. Finally, it is valuable to acknowledge other threats to internal validity, including period effects (e.g., improvements in family functioning related to changes in pandemic restrictions), in addition to developmental

maturation (i.e., children getting older). To partially account for these factors, baseline COVID-19 disruption and an age-by-time interaction were both included in the analyses.

Amidst the identified need for health service programs that prioritize the family unit as “the client” within treatment, calls for research in the area of family functioning within child mental health care, and strong evidence for the family systems and family stress model frameworks, evaluations of family-wide outcomes from clinical interventions have been more limited, due to the challenges inherent to longitudinal, multilevel family assessment (Buka et al., 2022; Everett et al., 2021; Georgiades et al., 2008; Lewandowski et al., 2010; McCarthy et al., 2021; Tang et al., 2024). This study contributes to the growing evidence base across these domains, demonstrating that interventions designed to target child mental health through the parent-child relationship are associated with broader psychosocial benefits for the larger family system (which is, itself, correlated with caregiver well-being). Thus, a primary application of these findings in clinical practice includes continued consideration of family-wide factors within the process of case formulation and treatment planning for children’s mental health concerns. Additionally, these results suggest that when administering caregiver-focused interventions like EFFT, ongoing progress monitoring for interpersonal functioning at the family level may be a valuable compliment to caregiver- and child-specific progress monitoring when identifying treatment gains over time, even when the focus of treatment is directed towards strengthening the parent-child relationship or managing children’s mental health concerns. Practically, this also includes consideration of whether short-term emotion-focused intervention programs for caregivers such as brief EFFT may be valuable as an adjunctive treatment approach.

Conclusion

The results of this study extend existing literature in the areas of family functioning, EFFT, and brief and virtual caregiver interventions, demonstrating that targeting the parent-child relationship, alongside consideration of the role of co-parenting styles and caregiving skills as points of clinical intervention have distal interpersonal benefits (family functioning).

Comparable results have been observed through both virtual and in-person service delivery for brief EFFT, demonstrating that this program can be flexibly applied for clients across varying contexts, and for caregivers of children with transdiagnostic mental health concerns. This work demonstrates the value of a family-wide lens when evaluating the outcomes associated with caregiver interventions, and these findings strengthen the growing evidence that brief EFFT is a valuable, cost- and resource-efficient approach, aligned with identified service needs in children's mental health care (Goveas et al., 2024).

Chapter 2: Parenting Practices and Child Mental Health Trajectories Following Brief Emotion-Focused Family Therapy

Introduction

Family relationships can serve as both protective and risk-promoting factors in children's mental health treatment (Buka et al., 2022; Repetti et al., 2002). To this end, parenting practices and the parent-child relationship have been established as a critical intervention target (Everett et al., 2021). Accordingly, emotion-focused parenting interventions, like brief Emotion-Focused Family Therapy (EFFT), have gained a substantial evidence base as both a primary and adjunctive treatment in the management of children's mental health concerns (Foroughe et al., 2023; Havighurst et al., 2020). Though program components vary, interventions of this nature typically address the parent-child relationship (including relational repair), psychoeducation surrounding emotion coaching and coregulation, and symptom interruption (or behaviour coaching) skills. In contrast to parent-involved child psychotherapy, caregiver interventions target caregivers as primary change agents in their child's mental health treatment, uniquely galvanizing the parent-child relationship as a vehicle for children's mental health recovery (LaFrance et al., 2020).

When studying emotion-focused caregiver interventions, it is critical to evaluate change in child-specific mental health symptoms *and whether change in those domains fluctuates based on caregiver behaviours*. Said differently, if the goal is to support children's well-being, studying factors specific to the direct recipients of the intervention (namely, caregivers) is valuable for understanding potential mechanisms through which recovery occurs. Both caregiver well-being and child mental health symptoms have been frequently studied in this context; however, these outcomes represent distal and secondary intervention targets. Relational caregiver training programs are designed to target caregiver *behaviour* as a catalyst to strengthening the attachment

bond. To this end, the goal of the program is to foster caregivers' capacity for parent-child co-regulation, thereby bolstering caregiver self-efficacy, and improving the emotional climate of the home. Despite this overarching framework, parenting behaviours remain an understudied construct following emotion-focused caregiver programs, including EFFT. Though substantial research has explored these outcomes following *behaviour-focused* parenting interventions such as Triple P and Incredible Years, within the *emotion- and relationally focused* intervention literature, there has been a more focal emphasis on child-symptom change and process-based outcomes (Ansar et al., 2023; Everett et al., 2021). For example, studies have identified that following brief EFFT workshops, caregivers report enhanced self-efficacy, which is associated with a reduction in transdiagnostic child mental health symptoms (including general mental health, conduct and externalizing symptoms, negative affect, and emotional lability; Cordeiro, 2019; Foroughe et al., 2019; 2023; Goveas et al., 2024; LaFrance et al., 2020; Wilhelm-Langseland et al., 2020). Treatment gains following EFFT are expected to cascade from caregiver to child, through change in parenting behaviours exhibited within daily interpersonal exchange (especially when children present with distress; LaFrance et al., 2020). Ultimately, the goal of EFFT (and caregiver interventions more broadly) is to affect change at the level of child mental health symptoms through the conduit of the parent-child relationship. Previous researchers have isolated child-specific and process-focused parent-level changes in emotional functioning following brief EFFT; as a next step, it is necessary to explore whether this cycle of post-intervention changes in children's mental health symptoms also jointly fluctuate in response to parenting behaviours (i.e., the putative cascade of child mental health symptom change occurring *through* the mechanism of caregiver behaviour change following brief EFFT).

Within the field of emotion-focused caregiver interventions, EFFT is among the most recently developed; a randomized clinical trial of a 6-week EFFT program is currently underway (Seddon et al., 2025). Though parental responsiveness and sensitivity have been studied following similar programs such as Attachment and Biobehavioural Catchup and Tuning in to Kids; no studies have explored how parenting practices relate to child symptom recovery following EFFT (Havighurst et al., 2020). Thus, by exploring whether children's mental health is predicted by caregiver behaviours (as the hypothesized vehicle for symptom change), researchers can ascertain the potential pathways through which brief EFFT may confer clinical benefits for children. To this end, it is valuable to understand the multi-faceted nature of parenting behaviour as a family-wide process that fluctuates across time, both within families (across siblings in the same family), and between families (from one family to another). Accordingly, this study evaluated post-intervention change in children's anger, anxiety, and depressive symptoms following brief EFFT, and assessed whether change in these domains was predicted by parenting practices.

Parenting in Context: A Child-Specific and Family-Wide Process

Parenting is a dynamic interpersonal process whereby caregivers are tasked with the responsibility of providing nurturance, meeting a child's needs, and supporting development (Lanjekar et al., 2022). In this context, *differential parental treatment* between siblings can be a constructive and adaptive response, reflecting unique attunement to the needs of each child. Conversely, differences in support, closeness, and behavioural control between children (which some researchers have described in preferential terms like favouritism/disfavouritism as a general short-hand) may not only create perceptions of unfairness and worse behavioural outcomes for the disfavoured child but can also increase the risk for maladjustment across all

children in the home (Meunier et al., 2012a; Sutor et al., 2008). Factors that contribute to these within-family processes include family context (lower socioeconomic status), caregiver functioning (very high or low agreeableness, greater openness to experience, and psychological distress all predict greater differential parenting), and child-specific variables (female, agreeable, conscientious, higher birthweight, older, and less disruptive children tend to be favoured; Atzaba-Poria & Pike, 2008; Browne et al., 2012b; 2018; Gass, 2011; Jensen et al., 2022; Plamondon et al., 2017). Thus, the non-shared (i.e., child-specific) family environment across siblings in the home is simultaneously informed by shared, family-wide factors, and children's own idiosyncrasies (Volling et al., 1998).

Findings from multiple reviews and meta-analyses have identified that children's escalating or defiant behaviour is often the catalyst that elicits the cycle of coercive parental control to manage challenging behaviours (Paschall & Mastergeorge, 2016; Plamondon et al., 2017). For example, one meta-analysis of 45 studies of differential parenting found that above and beyond the role of caregiver psychological distress and parenting competence, externalizing behaviours prompt higher levels of stress, parental depressive symptoms, harsh parenting strategies, and use of control in parenting (Yan et al., 2021). These patterns of differential parenting in response to child externalizing behaviours are particularly deleterious (and vulnerable to being maintained over time) when children present with moderate to high mental health symptoms and families are facing cumulative social disadvantage or adversity (Browne et al., 2012a). Altogether, both individual characteristics and contextual factors in the family system co-create the dyadic interactions between each caregiver and child in the family (Eichelsheim et al., 2009). Simultaneously, every interactional exchange in the family system reflects and fosters the ambient environment in the home, shaping family-wide interpersonal

functioning. It is these synergistic and cascading interpersonal cycles within the parent-child relationship and the collective family environment that caregiver interventions such as EFFT seek to address, with the goal of strengthening the parent-child relationship as a vehicle for children's mental health recovery (LaFrance et al., 2020; Havighurst et al., 2020). In view of the aforementioned linkages across both caregiver and child effects on parenting behaviour, it is essential to consider differential parenting in the context of clinical interventions like EFFT, where caregivers are often seeking mental health treatment for specific children in the family who are presenting with higher emotional or behavioural needs (i.e., clinically identified children), also known in family systems theory as *the identified patient* or "IP" for short (Minuchin, 1981). That being said, the EFFT model is well-suited to be applied across all children in the home and multiple caregiver-child relationships; however, and to date, such a multilevel and family systems perspective has not been taken in clinical studies of families who seek and/or receive EFFT interventions. Thus, a simultaneous systems-wide (family environment and adversity considerations), "top-down" (parental influence), and "bottom up" (child effects) perspective must be considered when evaluating this growing clinical model.

Emotion-Focused Family Therapy and the Family System

Family-wide considerations are implicit within the EFFT framework (and emotion-focused caregiver interventions more broadly), yet, they are seldom studied due to an over-reliance on one-child-per-family methodology, precluding an examination of child-specific and family-wide effects (Sloss et al., 2025). As previously mentioned, EFFT has been associated with increased parental self-efficacy and reduced child mental health concerns; however, it is unclear if these intervention-associated boosts in caregiver self-efficacy translates across all children in the family (e.g., is a parent characteristic), or is specific to individual children (i.e., is

a quality of the parent-child dyad in question). Based on a family systems framework and considerations of cumulative risks in developmental science, children in the same family are shaped by shared family processes (such as the familial relational climate) and have unique non-shared individual experiences (such as variations in parenting practices between children; Browne et al., 2012a; Cox & Paley, 2003). In this way, even if therapeutic services were sought primarily for one child in the family, other children may experience benefits to their mental health due to “spillover” of relational exchanges within the family system (Nelson et al., 2009). Altogether, these questions highlight the value of multilevel models which account for the unique variability in child-specific mental health and child-specific parenting across these levels of the family system (within children over time, between children and/or caregivers in the same family, and between families across the study sample).

Brief EFFT and Children’s Mental Health

A handful of studies to date have evaluated changes in children’s mental health symptoms following brief, two-day EFFT caregiver workshops: Goveas and colleagues (2024) identified small, immediate post-intervention intervention effects in children’s externalizing symptoms, conduct problems, negative affect and mood lability, with high caregiver satisfaction. Similarly, Wilhelmsen-Langeland (2020) demonstrated a significant reduction in children’s oppositional defiant symptoms (but no other domains) with a medium effect size, between baseline and 3 months post-intervention. This contrast (and relative increase) in effect sizes is consistent with the hypothesis that the most immediate changes from EFFT are expected for caregivers; conversely, children’s mental health is expected to respond to those changes over time (Foroughe et al., 2023). To this end, Foroughe and colleagues (2023) observed significant improvements in children’s overall mental health symptoms by 4 months post-workshop, which

were sustained through the 12-month follow up period; with stronger effects at both 4 and 12 month follow ups for children of caregivers that experienced higher gains in their self-efficacy following the program, with medium effect sizes. Though this study did not include analyses specific to each symptom cluster, it does represent the longest follow up period within brief EFFT research to date at the time of writing.

The Current Study

This study had two primary goals: (1) Assess the nature and degree of change in parent-reported child anger, anxiety, and depression symptoms, contrasted across multiple children in the family following a brief 2-day EFFT workshop, and (2) explore the role of parenting behaviours in association with caregiver-reported children's mental health concerns. This is the first study of EFFT outcomes accounting for the predictive role of parenting behaviours in children's mental health outcomes across multiple children within the same family. In addition, this study also contributes specificity surrounding the transdiagnostic benefits that may be associated with brief EFFT beyond general child mental health. Through multilevel modelling, the analyses allow for an analysis of variance partitioning related to change in children's mental health (both within and between participants) across time. In addition, within specific families, these analyses account for data clustering at the family level, permitting the inclusion of data representing multiple children within the same family with the statistical model. Altogether, the analyses explore both the within- and between-family processes that relate to children's mental health trajectories following brief EFFT workshops. The following hypotheses were developed:

Hypothesis 1: There will be stable between- and within-family differences in child anxiety, anger, and depression outcomes, in addition to variability within children (i.e., Across the sample, significant variance will be observed at the level of time - post-intervention symptom

reduction will be observed from the baseline assessment (T0) compared to the 12-month follow up (T5)). In addition, significant variance in children's mental health outcomes will also be accounted for at the individual (child-specific) level such that the target (clinically identified) child in the family will have greater mental health challenges than siblings at baseline, and experience greater reduction in symptoms (steeper trajectories of improvement) over time. Lastly, that some caregivers (families) in the sample will report higher child mental health symptoms in general compared to other families (between family variance).

Hypothesis 2: Consistent with past EFFT studies, non-linear trajectories of change in children's mental health symptoms will be observed across anger, anxiety, and depressive symptoms, reflecting symptom reduction in these domains in response to brief EFFT.

Hypothesis 3: Child mental health outcomes will be predicted by covariates, including age, clinical status, and caregiver distress, where older children, the clinically identified child (vs siblings), and more distressed caregivers will report higher levels of child symptoms, and will also improve more over time.

Hypothesis 4: Child mental health trajectories will be predicted by several parenting practices variables (see *Data Analysis* section for more details), such that: (a) greater family average positive parenting and lower family average negative/hostile parenting will be associated with greater child well-being (fewer mental health symptoms) over time, (b) lower family-wide variation (standard deviation) in positive and negative parenting behaviours will predict fewer child mental health symptoms over time, and (c) lower deviation parenting (child-specific differential positivity and negativity) will be associated with fewer child mental health symptoms over time. In this study, parenting variables have been modelled as independent variables, and not as dependent variables; as such, these results inform how children's mental health symptoms

are associated with and fluctuate in response to family average and child-specific parenting; however, they do not inform whether parenting practices changed as a result of brief EFFT.

Methods

Participants

The sample for this study comes from a longitudinal cohort of caregivers ($n=159$, representing 124 families and 264 children) who participated in virtual two-day EFFT workshops at a mid-sized private outpatient mental health agency in Toronto, Ontario. The mental health agency offers family-based mental health services and also has an active role in both research initiatives and clinical training. All participants attended a single iteration of the workshop, which had 11 offerings between September 2020 and November 2021. The workshops included 15.71 participants on average ($SD = 5.74$, range = 8-27). All individuals participating in the workshop were invited to enroll in the study; 76% of workshop attendees registered for research participation. This sample also includes 35 participants (22%) who were repeat caregivers nested within the same family (i.e., both parents from a family participating). A handful of participants (10%) had atypical participation (see the Appendix) and (6%) withdrew from the study due to dissatisfaction or change of interest, finding the questionnaires unpleasant, and/or having no contact with their child, with the removal of these participants, the final sample was $n=159$. Caregivers were invited to report on outcomes for up to four children per family ($M = 2.15$ children/family, $SD = 0.83$). For the primary analysis, analyses were run on a single caregiver per family representing caregivers of children 5-25 years old ($n=105$). This was done to limit the age range (e.g., eligible children ranged from toddlers to young adults up to age 29), and to manage assumptions of data dependence for the modeling strategy (see *Sensitivity Analysis*).

Except where explicitly noted, all presented sample characteristics and study results reflect the above-described sample of data from caregivers of children aged 5-25 years old.

On average, caregivers were 47.01 years old ($SD = 6.89$ years, range: 30-78 years). Participants were majority women (87%), alongside men (12%) and one gender minority caregiver (1%). For the analysis, dummy variables were created for caregiver and child gender to maximize the available study data; “female” was the reference category, with “male” and all other gender identities coded as 1. A separate category for gender minority caregivers (and children) was not created due to the very small sample of participants ($n=1$ caregiver (1%), $n=7$ children (3%)); however, a sensitivity analysis was run removing data from these participants and the results were substantively identical (see the Appendix). In terms of ethnicity, caregivers were primarily White (73%), with the remainder of participants from various backgrounds, including South Asian (11%), East Asian (7%), Black (3%), Indigenous (3%), Hispanic (2%), Caribbean (1%), Middle Eastern (1%), and other backgrounds (7%). Most were married, common-law, or living with their partner (74%, including opposite-sex and same-sex couples), with 8% of participants living apart from their partner, 15% single caregivers, and 3% in other relational circumstances. Caregivers were asked the highest level of education they had completed (34% certificate or degree above a bachelor’s degree, 41% bachelor’s degree, 3% university certificate, 18% college or diploma, and 4% high school), and their current monthly household income bracket ranging from \$0-\$1600 to \$8300+/month (Median = \$6601-\$8300 CAD).

Caregivers were asked to identify which child they were primarily seeking services for, this child was considered the “target” or clinically identified child in the family, assumed to have the highest need for mental health intervention. On average, target children were 12.79 years old

($SD = 3.56$), and siblings were 12.84 years old ($SD = 4.46$). Target children and siblings included children identifying as male (50% and 36%, respectively), female (45%; 63%), and gender non-conforming (6%; 1%). Most caregivers were biological parents (72%); however, others had children through blended families (24%), adoption (5%), or kinship relationships (e.g., an aunt or grandparent; 3%). Caregivers were provided a list of challenges and asked to identify those that were relevant for their children. They selected from the following non-mutually exclusive concerns for the target child and their siblings (respectively): anxiety (76% target child; 39% siblings), emotional, social, or relational concerns (67%; 18%), self-esteem (61%; 29%), behavioural dysregulation (55%; 11%), depression (52%; 17%), stress (45%; 33%), attention-deficit hyperactivity disorder (32%; 8%), eating disorder (19%; 7%), somatic complaints (15%; 4%), abuse/trauma (15%; 6%), cognition (12%; 0%), medical/physical health (7%; 7%), autism spectrum disorder (6%; 3%), and other (16%; 23%). Based on baseline caregiver-report, 49% of target children (and 23% of siblings) had DSM-5-TR (or equivalent) diagnoses. The most common were attention-deficit hyperactivity disorder, generalized anxiety (or unspecified anxiety diagnosis), major depressive episode (or unspecified low mood diagnosis), and specific learning disorder. Seventy three percent of target children and 43% of siblings had previously received mental health services.

Procedure

The procedure for this study was identical to that of study 1, discussed on pages 30-31.

Measures

All measures were administered at pre-workshop baseline (1 week before the program; Time 0), immediately post-workshop (Time 1), and 1-, 3-, 6-, and 12-months follow up (Times 2-5). Child mental health symptoms were assessed with the Patient Reported Outcomes

Measurement Information System (PROMIS) Parent Proxy Scales Short forms from HealthMeasures.net, funded by the National Institutes of Health (NIH; Varni et al., 2012). These scales assessed for depressive (v 2.0, 6a;6 items), anxiety (v2.0, 8a;8 items) and anger (v2.0, 5a;5 items) symptoms with a five-point Likert scale ranging from (1) *Never* to (5) *Always*. Higher scores suggest the presence of more symptoms (Clinical cutoffs based on a T-score of 65 are as follows: anger: 17, anxiety: 25, depression: 19). The internal consistency demonstrated good to excellent reliability (Anger range: $\alpha = .86-.91$; Anxiety range: $\alpha = .90-.96$; Depression range: $\alpha = .91-.95$).

To assess self-reported parenting behaviours, participants completed the Parent Practices scale from the epidemiological 2014 Ontario Child Health Study (Boyle et al., 2019; Statistics Canada, 2017). This scale was developed using items from the National Longitudinal Survey of Children and Youth and the child report of the Parent Behaviour Inventory; scale items were selected by conducting an empirical item reduction using data from previous studies that contained similar item sets (Duncan, n.d.). This 10-item measure assesses the frequency of positivity and negativity/hostility in parenting behaviours using a 5-point Likert scale ((1) *Never* to (5) *Always*). Positive items include listening to child's ideas and opinions, offering the child care and attention, speaking well of the child. Similarly, negative/hostile items include nagging, saying mean things to the child, yelling, and threatening punishment). The positivity and negativity scales each include 5 items and higher scores suggest a greater frequency of the identified behaviours.

In the original iteration of the Parenting Practices scale, there were 11 items, with an additional item related to keeping rules only when it suits the caregiver to do so. This item was removed from the scale by the authors of the 2014 Ontario Child Health Study due to difficulties with caregiver comprehension (for further documentation surrounding scale development, see

Duncan, n.d.). Following the approach taken by other researchers investigating differential parenting, the 10-item version was selected and the negativity and positivity scales were analyzed separately as two 5-item scales (Boyle et al., 2004; Meunier et al., 2012b). Except for positive parenting for child 2 at Time 0 ($\alpha=0.67$, Standardized $\alpha = 0.69$) and child 3 at Time 3 ($\alpha=0.63$, Standardized $\alpha = 0.68$), the internal consistency of both scales was acceptable to excellent across all timepoints ($\alpha = .70-.90$).

As a measure of caregiver psychological well-being, participants completed the Kessler Psychological Distress Scale (K10; Kessler et al, 2002). The K10 assesses the frequency of psychological distress symptoms in the last 30 days, including low mood, nervousness, and somatic concerns. This 10-item measure uses a 5-point Likert scale (*1 - None of the time* to *5 - All of the Time*), where higher scores suggest greater distress (clinical cutoff: 20). The K10 showed good internal consistency ($\alpha = 0.85-0.90$).

Missing Data

The study sample size was determined based on the number of families that sought the virtual 2-day EFFT workshop through the centre where the study was being conducted during the study period. Less than one percent of data from the child PROMIS scales was invalid due to incomplete survey questions, resulting in inestimable summary scores; this data was removed from the sample. Outliers were handled via Winsorization; using the metric of ± 3 standard deviations from the mean for univariate outliers ($n= 0-2$ outliers/variable). Using Mahalanobis Distance, one multivariate outlier was found in the parenting data for the second child ($p<.001$), reflecting dramatic response fluctuations from Times 0-5. The pattern of results differed with the inclusion of this case, suggesting that the responses were inconsistent with the rest of the sample; thus, it was removed the dataset. When Littles (1998) Missing Completely at Random (MCAR)

test was run, all missing data was MCAR ($ps > .05$), except for the K10 data ($\chi^2(32) = 53.96, p = .009$; 85% retention). Missing data appeared to be the result of attrition over time, which is common in studies of this duration. Retention was also high across the child mental health and parenting practices data ($\geq 86\%$), with similar absolute attrition but higher relative drop-out in parenting survey completion for third and fourth children ($\geq 75\%$ retention). Put differently, retention calculations varied due to family size (number of children/family; one child ($n=105$), two ($n=85$), three ($n=31$), four ($n=4$)). For more information on study retention, please see the Appendix. Considering the largely MCAR data and the complexity associated with data imputation for a longitudinal multilevel model with unbalanced data, imputation was not conducted. The differential parenting scores were *group* mean centred (relative to the average parenting score for each family); subsequently, all continuous (non-categorical) predictor variables except for time (where 0 is a meaningful value) were *grand* mean centred to reduce multicollinearity within interaction terms.

Data Analysis

Multilevel modeling was completed in RStudio version 4.1.2. with the lme4 package (Bates et al., 2015; R Core Team, 2021). Figures were produced with the ggplot2 package (Wickham, 2016). For the outcome (children's mental health), repeated measures across time (level 1, over six time points), were nested within children (level 2, $n = 162$), who were further nested within the reporting caregiver (level 3 – $n = 105$), where the highest level of the model was also identified with the family level. Thus, models were configured as higher-order growth curve models. Relative variance components at each level permitted the identification of variability in children's mental health due to change (within-person, plus error), stable child-specific characteristics (between-person/within-family), and stable caregiver/family differences

(between-family). To explore the shape of post-intervention symptom trajectories, continuous growth curve modelling was used to explore linear, quadratic, and cubic change, with time as a fixed effect (scaled in months). Subsequently, covariates were added, including child age, gender, and caregiver psychological distress. Following the approach modelled by Jenkins and colleagues (2009), the models were completed in separate iterations for each mental health outcome (anger, anxiety, and depression) across both positive and negative/hostile parenting. All models converged and no error messages were reported by the RStudio program.

Several variables were created for both positive and negative parenting at each timepoint: (1) Family average or ambient parenting (AP) score reflecting the average level of parental positivity/negativity in the home, across all children. For single-child families, the average was the child's raw score, (2) Family-wide variation (standard deviation (SD)) in parenting practices across all children in the home (and more useful than a range, given that the averages include more than two children). Higher *SD* values reflect a greater range of positivity/negativity across children, within families, and (3) Differential parenting (DP) scores, reflecting the child-specific positive/negative parenting each child uniquely received relative to the AP. Higher DP scores reflect a higher level of positivity/negativity for the child in question (or favouritism/disfavouritism). For the handful of single-child families, the family-wide variation (*SD*) and between-child variation (DP) were 0. All three effects (AP, SD, DP) were modelled as main effects, and then as interactions with linear time. For more information, see other publications with this approach (Boyle et al., 2004; Browne et al., 2012a; Jenkins et al., 2009 and Meunier et al., 2012b). Analytic code may be requested from the corresponding author and analyses were preregistered: <https://osf.io/hneu9>

Sensitivity Analysis. The analysis was completed in two stages: First, an age-filter was applied, and the analyses were run including only caregivers representing children ages 5-25 years, with one caregiver representing each family (n=105 families, n = 262 children across six timepoints). This approach aligns with the approach taken in other works with the same dataset and research that suggests that adolescent development extends up to 24 years of age, while also accounting for differences inherent to the application of EFFT with infants and toddlers (Sawyer et al., 2018; Sloss et al., 2025). Secondly, the analyses were re-run with children of all ages and the results were substantively identical (n=159, see the Appendix). A cross-classified model was not attempted, which would have substantially increased model complexity, but only applied to a handful of participants in the sample (n=35).

Results

Question 1: What accounts for the variation in children's mental health outcomes?

Descriptive statistics can be found in Table 7, and bivariate correlations, in Table A3 in the Appendix. Intraclass correlations (see Table 8) reflect the level of variance in child mental health that is attributable to each level of the model: (1) change over time, (2) stable between-child differences, and (3) stable between-family differences. In the null models (for child depression, anger, and anxiety symptoms; Model 0), significant variance was found across levels of the model (Level 3: Family, Level 2: Child, and Level 1: Time). Reflecting Level 3, 7-13% of variance was at the family level (between-family differences), though statistically significant variance was only observed for anxiety and anger. This finding demonstrates that some families have children with more anger and anxiety than other families. In addition, 52-55% of the variance in child mental health outcomes was accounted for at Level 2 (between-child differences). This result indicates that children *within* families (i.e., siblings) varied greatly from

one another in their level of mental health symptoms. Finally, 34-39% variance was observed at Level 1 (within-child and within-family change over time, including measurement error; see Tables 8-9). This finding means that irrespective of stable family and individual child differences, children's mental health symptoms changed over time.

Table 7*Descriptive Statistics for Study Variables in Study 2*

Variable/Time		0	1	2	3	4	5
		<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
		<i>% clinical range</i>					
Positive Parenting Practices	Family Average	20.22 (2.25)	19.83 (2.40)	20.21 (2.38)	20.16 (2.45)	20.44 (2.41)	20.69 (2.71)
	Family SD	1.21 (1.31)	1.42 (1.58)	1.04 (1.08)	1.15 (1.32)	1.18 (1.65)	1.28 (1.66)
	DP Target Child	-0.70 (1.30)	-0.86 (1.57)	-0.50 (1.10)	-0.51 (1.44)	-0.77 (1.71)	-0.72 (1.60)
	DP Siblings†	0.66 (0.97)	0.88 (1.28)	0.50 (0.97)	0.47 (1.16)	0.71 (1.03)	0.68 (1.16)
Negative Parenting Practices	Family Average	11.61 (3.19)	12.16 (3.31)	10.87 (2.81)	10.55 (2.91)	10.41 (2.92)	10.20 (2.92)
	Family SD	1.31 (1.39)	1.38 (1.36)	1.13 (1.25)	1.15 (1.18)	1.11 (1.27)	1.12 (1.32)
	DP Target Child	0.58 (1.30)	0.53 (1.41)	0.40 (1.23)	0.30 (1.17)	0.21 (1.17)	0.28 (1.27)
	DP Siblings†	-0.57 (1.15)	-0.61 (1.23)	-0.45 (1.06)	-0.37 (1.14)	-0.24 (1.14)	-0.32 (1.17)
Mental Health <i>Target Child</i>	PROMIS Anxiety	20.40 (7.64) - 31%	19.35 (7.00)	16.78 (6.32)	17.32 (7.19)	17.28 (6.87)	16.00 (6.56)
	PROMIS Anger	14.98 (4.04) - 40%	14.71 (4.02)	13.22 (4.22)	12.76 (4.47)	12.98 (4.37)	11.43 (4.10)
	PROMIS Depression	17.40 (5.69) - 39%	16.42 (5.25)	14.44 (5.22)	14.00 (5.30)	14.06 (5.40)	12.68 (5.12)
<i>Siblings</i>	PROMIS Anxiety	15.26 (5.50) - 5%	15.66 (5.40)	14.77 (5.67)	14.66 (5.33)	14.56 (5.69)	14.42 (5.67)
	PROMIS Anger	10.61 (3.56) - 6%	11.11 (3.53)	9.98 (3.11)	10.32 (3.42)	9.86 (3.10)	9.69 (3.49)
	PROMIS Depression	11.87 (4.15) - 10%	12.10 (4.56)	11.26 (3.85)	11.64 (3.91)	10.86 (4.18)	10.79 (4.13)
<i>Caregivers</i>	K10 Psychological Distress	21.88 (6.50) - 60%	21.83 (5.88)	20.20 (6.03)	20.90 (6.55)	19.93 (5.82)	19.34 (6.44)

Note: *M* = Mean, *SD* = Standard Deviation, DP = Differential Parenting, Target Child = The child for whom parents sought services (Child 1), representing *n* = 105 children. For both positive and negative parenting, the average and *SD* scores are consistent across all children in the same family. †Consistent with the analysis, data from non-target children in the family (Children 2, 3, and 4) were collapsed into a grouped “Siblings” variable; siblings across all families represented *n*= 157 children. For positive parenting practices, positive differential parenting scores reflect favouritism, and negative scores, disfavouritism. For negative parenting practices, positively valenced differential parenting scores reflect disfavouritism (increased child-specific negativity) and negatively valenced scores reflect favouritism (lower than average child-specific negativity).

Table 8*Intraclass Correlation Coefficients (ICCs) across Null Models*

<i>Model Level/ Dependent Variable</i>	Anxiety	Anger	Depression
Level 3 - Family	13%*	12%*	7%†
Level 2 - Child	53%*	52%*	55%*
Level 1 - Time	34%*	36%*	39%*

Note: Adjusted ICCs reported. * $p < .05$ or a statistically significant level of variance. †95% confidence interval includes 0.

Question 2: What is the shape of children’s mental health trajectories over time?

When Model 1 was run with time as a linear fixed effect across all children (up to four per family), the intercept reflected a sub-clinical level of mental health symptoms across anger ($\beta = 12.32$, $SE = 0.27$, $p < .001$; T-score = 53), anxiety ($\beta = 16.98$, $SE = 0.43$, $p < .001$; T-score = 55), and depression symptoms ($\beta = 13.89$, $SE = 0.32$, $p < .001$; T-score = 57; see Tables 9-10). There was a significant and negative main effect of time, reflecting a continuous reduction in child anger ($\beta = -0.15$, $SE = 0.02$, $p < .001$), anxiety ($\beta = -0.15$, $SE = 0.03$, $p < .001$), and depressive symptoms ($\beta = -0.17$, $SE = 0.02$, $p < .001$) each month post-intervention. These effects were consistent with a small effect size for anxiety and anger (both $\eta^2 = 0.03$) and a medium effect size for depressive symptoms ($\eta^2 = 0.06$, Correll et al., 2021). To explore the shape of post-intervention symptom trajectories, Models 2 and 3 explored quadratic and cubic change. As the highest order term that was significant, Model 3 identified a negative cubic trajectory for anger ($\beta = -0.01$, $SE = 0.002$, $p < .001$, $\eta^2 = 0.01$), anxiety ($\beta = -0.01$, $SE = 0.004$, $p < .001$, $\eta^2 = 0.01$), and depressive symptoms ($\beta = -0.01$, $SE = 0.003$, $p = .001$, $\eta^2 = 0.01$). Given the nature of the sample (where caregivers were asked to identify the child for whom they were

primarily seeking services - also known as the target child or the “clinically identified” child), it was expected that baseline symptoms and trajectories of change would differ across the target child and their siblings (see Figure 3). To explore this hypothesis, a target child dummy variable was added in Model 4 (where the target child was coded 1 and all other siblings coded 0). The main effect of target child was significant, indicating that the child was presenting with a significantly higher level of baseline mental health symptoms across all three domains, relative to other children in the home. Estimates were as follows, with medium to large effects: anger ($\beta = 3.25$, $SE = 0.35$, $p < .001$, $\eta^2 = 0.39$), anxiety ($\beta = 3.38$, $SE = 0.64$, $p < .001$, $\eta^2 = 0.16$), and depression ($\beta = 3.63$, $SE = 0.48$, $p < .001$, $\eta^2 = 0.29$). The dummy variable for target children vs siblings was retained across all models (i.e., all children in the family (up to four/family) were included in the analyses).

Target child was also added to the model an interaction with linear, quadratic, and cubic time. All three interactions were significant, such that target children vs. siblings had differing cubic trajectories of change between these groups (Anger: $\beta = -0.01$, $SE = 0.004$, $p = .001$, $\eta^2 = 0.01$; Anxiety: $\beta = -0.02$, $SE = 0.01$, $p < .05$, $\eta^2 = 0.01$; Depression: $\beta = -0.02$, $SE = 0.01$, $p < .001$, $\eta^2 = 0.01$). Though all children experienced a trend of improvement that waxed and waned over time, target children varied from their siblings with a steeper slope of recovery and more dramatic symptom fluctuations over time. Target children’s anxiety trajectories slightly worsened after Time 2 (1-month post-EFFT) but resumed a trajectory of improvement between Time 4 and 5 (6- and 12-months post-EFFT). By comparison, the magnitude of change in sibling anxiety trajectories was substantially smaller; symptom improvement was observed for siblings until Time 4 (6-months post-intervention), after which time (Time 5, 12-months post intervention), a slight increase in symptoms was observed. Symptoms across target children and

siblings were lower, and more similar in intensity by Time 5 than at Time 0 (baseline). In other words, it appears that siblings were more similar in terms of anxiety than they were one year prior, and before the intervention.

For anger and depressive symptoms, target child and siblings' trajectories of anger and depressive symptoms mirrored each other between Times 0 and 1 (baseline and immediately post-intervention); however, from Time 2 to Time 5, the pattern of change observed in the target child was *opposite* to that of their siblings. As target children continued to experience symptom improvement at Time 2, siblings experienced a slight symptom increase during this period (narrowing the gap of symptom intensity between siblings). Subsequently, this trend continued, as target children's experienced slight increase in symptoms (and siblings' symptoms decreased – widening the gap between children) before attenuating and continuing a trend towards recovery for target children (and symptom increase for siblings) at Time 5. In other words, there were follow-up periods where target children and siblings were more similar and more different.

Table 9

Random Effects from the Multilevel Model Output Examining Growth Curves for Child Mental Health Outcomes

	Model 1 (Time - Linear)	Model 2 (Time - Quadratic)	Model 3 (Time - Cubic)	Model 4 (Time Interactions)
<i>Random Effects</i>	s^2 <i>SD [95% CI]</i>	s^2 <i>SD [95% CI]</i>	s^2 <i>SD [95% CI]</i>	s^2 <i>SD [95% CI]</i>
PROMIS Anxiety				
Level 3 - Family Intercept	5.80* 2.41 [0.88, 3.44]	5.76* 2.40 [0.87, 3.43]	5.72* 2.39 [0.85, 3.42]	7.59* 2.28 [1.69, 3.67]
Level 2 - Child Intercept	23.30* 4.83 [4.21, 5.55]	23.33* 4.83 [4.22, 5.56]	23.39* 4.84 [4.22, 5.56]	18.84* 4.34 [3.76, 4.99]
Level 1 – Time Intercept	14.33* 3.79 [3.62, 3.96]	14.21* 3.77 [3.61, 3.94]	14.04* 3.75 [3.58, 3.91]	13.82* 3.72 [3.55, 3.88]
PROMIS Anger				
Level 3 - Family Intercept	2.15* 1.47 [0.32, 2.14]	2.15* 1.47 [0.32, 2.14]	2.15* 1.47 [0.33, 2.14]	4.02* 2.01 [1.45, 2.54]
Level 2 - Child Intercept	9.58* 3.10 [2.70, 5.57]	9.59* 3.10 [2.70, 3.57]	9.62* 3.10 [2.71, 3.57]	5.31* 2.30 [1.97, 2.69]
Level 1 – Time Intercept	5.95* 2.44 [2.33, 2.55]	5.90* 2.43 [2.32, 2.54]	5.82* 2.41 [2.31, 2.52]	5.61* 2.37 [2.26, 2.47]
PROMIS Depression				
Level 3 - Family Intercept	1.77 1.33 [0.00, 2.31]	1.74 1.31 [0.00, 2.29]	1.70 1.30 [0.00, 2.29]	4.08* 2.02 [1.13, 2.75]
Level 2 - Child Intercept	15.68* 3.96 [3.45, 4.56]	15.72* 3.97 [3.46, 4.56]	15.76* 3.97 [3.46, 4.56]	10.30* 2.02 [2.76, 3.72]
Level 1 – Time Intercept	10.27* 3.20 [3.07, 3.35]	10.15* 3.19 [3.05, 3.33]	10.05* 3.17 [3.03, 3.31]	9.68* 3.11 [2.97, 3.24]

Note. * $p < .05$ or a statistically significant difference. s^2 = Variance, *SD* = Standard Deviation, *CI* = 95% confidence intervals.

Table 10

Fixed Effects from the Multilevel Model Output Examining Growth Curves for Child Mental Health Outcomes

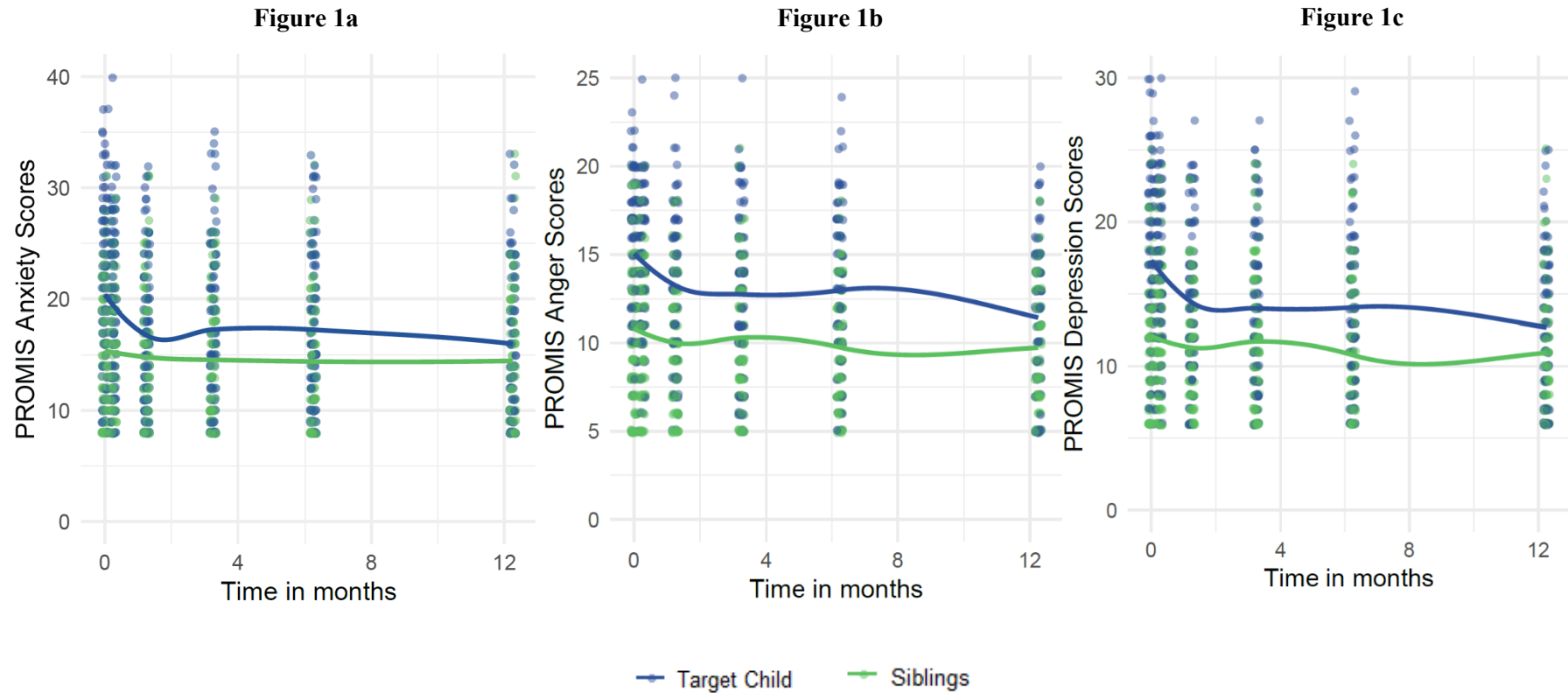
	Model 1 (Time - Linear)	Model 2 (Time -Quadratic)	Model 3 (Time - Cubic)	Model 4 (Time Interactions)
<i>Fixed Effects</i>	β [CI]	β [CI]	β [CI]	β [CI]
PROMIS Anxiety				
Intercept	16.98*** [16.13, 17.83]	17.26*** [16.40, 18.13]; 0.44	17.58*** [16.70, 18.46]	15.31*** [14.20, 16.42]
Time in Months	-0.15*** [-0.20, -0.10]	-0.43*** [-0.61, -0.24]; 0.09	-1.27*** [-1.76, -0.77]	-0.50 [-1.17, 0.18,]
Time in Months ²	-	0.02*** [0.01, 0.04]; 0.01	0.24*** [0.12, 0.36]	0.08 [-0.08, 0.25]
Time in Months ³	-	-	-0.01*** [-0.02, -0.01]	-0.003 [-0.01, 0.01]
Target Child (TC)	-	-	-	4.67*** [3.27, 6.06]
TC*Months	-	-	-	-1.64** [-2.62, -0.66]
TC*Months ²	-	-	-	0.34** [0.10, 0.58]
TC*Months ³	-	-	-	-0.02** [-0.03, -0.01]
PROMIS Anger				
Intercept	12.32*** [11.79, 12.86]	12.50*** [11.95, 13.05]	12.71*** [12.16, 13.28]	10.60*** [9.92, 11.28]
Time in Months	-0.19*** [-0.19, -0.12]	-0.32*** [-0.44, -0.21]	-0.89*** [-1.21, -0.57]	-0.31 [-0.74, 0.12]
Time in Months ²	-	0.01*** [0.01, 0.02]	0.16*** [0.08, 0.24]	0.04 [-0.06, 0.15]
Time in Months ³	-	-	-0.01*** [-0.01, -0.004]	-0.002 [-0.01, 0.004]
Target Child (TC)	-	-	-	4.35*** [3.55, 5.14]
TC*Months	-	-	-	-1.23*** [-1.85, -0.60]
TC*Months ²	-	-	-	0.26** [0.10, 0.41]
TC*Months ³	-	-	-	-0.01** [-0.02, -0.01]

PROMIS Depression				
Intercept	13.88*** [13.25, 14.53]	14.17*** [13.52, 14.82]	14.41*** [13.75, 15.08]	11.91*** [11.06, 12.75]
Time in Months	-0.17*** [-0.21, -0.13]	-0.45*** [-0.60, -0.29]	-1.09*** [-1.51, 0.67]	-0.19 [-0.75, 0.38]
Time in Months ²	-	0.02*** [0.01, 0.04]	0.19*** [0.09, 0.29]	0.003 [-0.14, 0.14]
Time in Months ³	-	-	-0.01** [-0.02, -0.004]	0.001 [-0.01, 0.01]
Target Child (TC)	-	-	-	5.21*** [4.14, 6.29]
TC*Months	-	-	-	-1.93*** [-2.75, -1.11]
TC*Months ²	-	-	-	0.40*** [0.20, 0.60]
TC*Months ³	-	-	-	-0.02*** [-0.03, -0.01]

Note. * $p < .05$ ** $p < .01$ *** $p < .001$ or a statistically significant difference. β = Beta, CI = 95% confidence intervals.

Figure 3

Children's Mental Health Trajectories Over Time Across Anxiety, Anger, and Depressive Symptoms



Note: The dots depict responses from each caregiver in the study, at each timepoint and the lines depict overall trajectories. Blue dots and lines reflect responses and trajectories for the target child, and green, for all other children in the home. On all PROMIS Parent Proxy scales, lower scores suggest the presence of fewer symptoms.

Question 3: What predictors are associated with child mental health symptoms?

In Model 5, covariates and predictors were individually added to the model. To pare down the model, the interactions with time from Model 4 were dropped to make room for other predictors and interactions between time and other variables. Subsequently, child age, child gender, caregiver psychological distress were added. Next, family average parenting, and child-specific deviations in positive and negative parenting practices were added as main effects and interactions with time. When family standard deviation parenting was also included in the model, the main effects and interactions were non-significant across all models. In view of model parsimony, both parameters were removed. These models were run separately for both positive and negative dimensions of parenting practices. Fixed and random effects can be found in Table 11 and fit statistics, in Table 12.

Child age was a significant predictor in the positive parenting model for anger, and both the positive and negative parenting models for depression symptoms; however, the direction of change varied across domains. For depression, older age was associated with higher symptoms at baseline (Positivity model (P): $\beta = 0.18$, $SE = 0.07$, $p < .01$, $\eta^2 = 0.05$; Negativity model (N): $\beta = 0.24$, $SE = 0.07$, $p < .001$, $\eta^2 = 0.09$). The opposite effect was observed for anger in the positive parenting model, such that for every year younger children were, the higher their level of symptoms at baseline ($\beta = -0.18$, $SE = 0.06$, $p < .01$, $\eta^2 = 0.06$). Child age did not significantly predict anxiety ($ps > .05$). Similar effects were observed for child gender, such that girls had higher baseline anxiety (P: $\beta = -2.22$, $SE = 0.70$, $p < .01$, $\eta^2 = 0.05$; N: $\beta = -2.26$, $SE = 0.70$, $p < .01$, $\eta^2 = 0.06$), and depression symptoms (P: $\beta = -1.29$, $SE = 0.52$, $p < .05$, $\eta^2 = 0.04$; N: $\beta = -1.34$, $SE = 0.51$, $p < .01$, $\eta^2 = 0.04$) relative to boys and gender minority children. Finally, higher caregiver psychological distress predicted higher baseline child anxiety (both: $\beta = 0.18$, $SE =$

0.03, $p < .001$, $\eta^2 = 0.04$), anger (both: $\beta = 0.08$, $SE = 0.02$, $p < .001$, $\eta^2 = 0.02$), and depressive symptoms (P: $\beta = 0.18$, $SE = 0.02$, $p < .001$, $\eta^2 = 0.07$; N: $\beta = 0.19$, $SE = 0.02$, $p < .001$, $\eta^2 = 0.07$).

Question 4: Are parenting behaviours associated with child mental health symptoms?

Positive Parenting Practices

For every one unit increase in *family average positive parenting*, children presented with lower baseline anger ($\beta = -0.28$, $SE = 0.06$, $p < .001$, $\eta^2 = 0.02$) and depressive symptoms ($\beta = -0.20$, $SE = 0.08$, $p < .05$, $\eta^2 = 0.007$). This effect also significantly interacted with time in one model such that children from families with higher average positive parenting experienced a steeper slope of recovery in anger symptoms post-EFFT ($\beta = -0.31$, $SE = 0.09$, $p < .001$, $\eta^2 = 0.01$; see Figure A1, Appendix). Though a significant main effect of anxiety on baseline symptoms was not observed ($p > .05$); there was a significant interaction between average positive parenting and time, such children in families with greater positive parenting experienced fewer symptoms over time ($\beta = -0.03$, $SE = 0.01$, $p < .01$, $\eta^2 = 0.01$; see Figure A2, Appendix). This was not the case for depressive symptoms (where a non-significant interaction was observed), such that the initial baseline differences in symptoms accounted for by family average parenting were maintained over time, with parallel slopes of change. With regard to *differential positive parenting*, for every one-unit increment in child-specific differential positivity (favouritism above and beyond family average parenting), that child presented with fewer anger ($\beta = -0.31$, $SE = 0.09$, $p < .001$, $\eta^2 = 0.01$) and depressive symptoms at baseline ($\beta = -0.27$, $SE = 0.12$, p

Table 11

Multilevel Model Output of Children's Mental Health Outcomes as Predicted by Child, Parent, and Family-Wide Factors

<i>Symptom Domain/Effect</i>	Child Anxiety		Child Anger		Child Depression	
	Model 5a	Model 5b	Model 5c	Model 5d	Model 5e	Model 5f
<u>Fixed Effects</u>	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)
Intercept	16.26 (0.58)***	16.36 (0.58)***	11.20 (0.36)***	11.37 (0.35)***	12.92 (0.43)***	12.99 (0.43)***
Months	-1.33 (0.27)***	-1.32 (0.27)***	-1.08 (0.17)***	-1.06 (0.17)***	-1.22 (0.22)***	-1.18 (0.23)***
Months ²	0.26 (0.07)***	0.26 (0.07)***	0.20 (0.04)***	0.19 (0.04)***	0.21 (0.05)***	0.21 (0.06)***
Months ³	-0.01 (0.004)***	-0.01 (0.004)***	-0.01 (0.002)***	-0.01 (0.002)***	-0.01 (0.003)***	-0.01 (0.003)**
Target Child (vs. Sibling)	4.22 (0.68)***	4.06 (0.66)***	3.38 (0.40)***	3.24 (0.37)***	3.92 (0.29)***	3.85 (0.49)***
<i>Covariates</i>						
Child age	0.09 (0.09)	0.17 (0.09)	-0.18 (0.06)**	-0.06 (0.06)	0.18 (0.07)**	0.24 (0.07)***
Child gender	-2.22 (0.70)**	-2.26 (0.70)**	-0.002 (0.42)	-0.07 (0.40)	-1.29 (0.52)*	-1.34 (0.51)**
Caregiver K10	0.18 (0.03)***	0.18 (0.03)***	0.08 (0.02)***	0.08 (0.02)***	0.18 (0.02)***	0.19 (0.02)***
<i>Parenting Dimension</i>	<u>Positive</u>	<u>Negative</u>	<u>Positive</u>	<u>Negative</u>	<u>Positive</u>	<u>Negative</u>
Family Average	-0.11 (0.10)	0.17 (0.09)	-0.28 (0.06)***	0.32 (0.05)***	-0.20 (0.08)*	0.14 (0.07)*
Child-Specific Deviation	-0.08 (0.15)	0.15 (0.14)	-0.31 (0.09)***	0.33 (0.09)***	-0.27 (0.12)*	-0.01 (0.12)
<i>Interactions</i>						
Family Average*Months	-0.03 (0.01)**	0.005 (0.01)	-0.02 (0.01)**	-0.001 (0.01)	-0.02 (0.01)	0.003 (0.01)
Child Differential*Months	-0.02 (0.02)	0.004 (0.02)	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.03 (0.02)
<u>Random Effects</u>	s^2 (SD)	s^2 (SD)	s^2 (SD)	s^2 (SD)	s^2 (SD)	s^2 (SD)
Level 3 – Family	2.64 (1.62)†	4.24 (2.06)†	2.10 (1.45)*	2.17 (1.47)*	1.39 (1.18)†	2.03 (1.42)†
Level 2 – Child	17.88 (4.23)*	16.34 (4.04)*	5.70 (2.39)*	4.82 (2.20)*	9.16 (3.03)*	8.49 (2.91)*
Level 1 – Time	13.20 (3.63)*	13.87 (3.72)*	5.22 (2.28)*	5.46 (2.34)*	9.19 (3.03)*	9.61 (3.10)*

Note: This model was run across all three child mental health outcomes (dependent variables) in two iterations, to explore the role of positive and negative parenting practices (independent variables). The unshaded columns reflect positive parenting practices, and the shaded columns reflect negative/hostile parenting practices. Level 1 (Time) includes measurement error. Differential parenting is a group mean centered variable. All continuous (non-categorical) variables except for Time were also grand mean centred. Caregiver K10 = Caregiver psychological distress scores. For child gender, female was coded 0 and represents the reference category, with all other gender identities coded as 1. For target child, the target child was coded 1 with siblings as 0. * $p < .05$ ** $p < .01$ *** $p < .001$ or a statistically significant difference. † = Confidence interval includes 0. β = Beta, SE = Standard Error, s^2 = Variance, SD = Standard Deviation.

Table 12*Model Fit Statistics from Model 5*

	Model 5a	Model 5b	Model 5c	Model 5d	Model 5e	Model 5f
<i>Model Fit</i>	Anxiety; Positive Parenting	Anxiety; Negative Parenting	Anger; Positive Parenting	Anger; Negative Parenting	Depression; Positive Parenting	Depression; Negative Parenting
AIC	6088.72	6134.65	5146.55	5166.12	5690.37	5720.99
BIC	6162.84	6208.78	5220.73	5240.30	5764.55	5795.15
Log Likelihood	-3029.36	-3052.32	-2558.28	-2568.06	-2830.19	-2845.50

Note. Positive = Positive parenting model, Negative = Negative parenting model. AIC - Akaike's Information Criterion, BIC = Bayesian Information Criterion. Models are not nested, all models have 15 parameters (including the intercept, child and family levels of the model, and predictors).

$p < .05$, $\eta^2 = 0.005$). A main effect of differential positivity was not observed for anxiety, and significant interactions were not observed across any outcome ($ps > .05$). These results suggest that differences in children's anxiety symptoms at baseline, and changes in anxiety, anger, and depressive symptoms, were not accounted for by within-family variations in differential positivity.

Negative Parenting Practices

A similar pattern of effects was observed for *negative* parenting practices. For every one unit increase in *family average negative parenting*, children presented with significantly higher anger ($\beta = 0.32$, $SE = 0.05$, $p < .001$, $\eta^2 = 0.04$) and depressive symptoms at baseline ($\beta = 0.14$, $SE = 0.07$, $p < .05$, $\eta^2 = 0.006$). Non-significant interactions were observed for both outcomes, demonstrating that the initial differences in anger and depressive symptoms associated with average negativity in the home were maintained over time. Both the main effect and the

interaction were non-significant for the anxiety model ($ps > .05$), suggesting that anxiety symptoms at baseline and their change post-EFFT were not accounted for by within-family differences in the level of family average negative parenting. Related to *differential negativity*, children who received a higher level of negativity from their caregivers relative to other children in the home (disfavouritism) had a higher level of anger symptoms at baseline compared to their siblings ($\beta = 0.33$, $SE = 0.09$, $p < .001$, $\eta^2 = 0.01$). All other main effects and interactions for differential negativity were non-significant ($ps > .05$). These results suggest that children presented with the same level of anxiety and depressive symptoms at baseline and similar trajectories of recovery over time (across all three domains), regardless of the level of differential negativity they received.

Finally, other models were run to explore additional covariates. Model 6 tested the effect of the number of caregivers per family (single vs double caregivers) who participated in the workshop (operationalized as a dummy-coded variable). When modeled both as a main effect and as an interaction with time, all effects were non-significant ($ps > .05$). This result suggests that children with single (vs double) participating caregivers experienced the same level of baseline mental health symptoms, and parallel slopes of change over time. Similarly, Model 7 was tested with a main effect and interaction variable controlling for the number of children caregivers had at home. Small to very small effects were found for the following models: For anger, depression, and anxiety symptoms (negative parenting model only), non-significant main effects ($ps > .05$) and significant interactions with time were observed, such that families of all sizes presented with similar baseline levels of mental health symptoms; however, children from smaller families experienced greater post-intervention symptom reduction over time compared to families with a greater number of children (see Figures A3-A5 in the Appendix). Interaction

effects were as follows for anger (Positive parenting model: $\beta = 0.06$, $SE = 0.02$, $p < .01$, $\eta^2 = 0.007$; Negative parenting model: $\beta = 0.08$, $SE = 0.02$, $p < .001$, $\eta^2 = 0.02$), anxiety (Negative parenting model: $\beta = 0.13$, $SE = 0.04$, $p < .001$, $\eta^2 = 0.02$), and depressive symptoms (Positive parenting model: $\beta = 0.07$, $SE = 0.03$, $p < .05$, $\eta^2 = 0.006$; Negative parenting model: $\beta = 0.10$, $SE = 0.03$, $p < .001$, $\eta^2 = 0.01$). Notwithstanding, this effect for anxiety symptoms requires replication as it was not observed across both iterations of the model (i.e., positive parenting predictors), suggesting that the variance attributed to this variable may be in part accounted for by other factors.

The role of past child mental health treatment was tested in Model 8 with no previous mental health treatment coded as 0: Children who had previously received mental health services had a higher baseline level of anxiety (Positive model: $\beta = 2.70$, $SE = 0.80$, $p < .001$, $\eta^2 = 0.05$; Negative model: $\beta = 2.50$, $SE = 0.81$, $p < .01$, $\eta^2 = 0.04$), depression (Positive model: $\beta = 1.77$, $SE = 0.59$, $p < .01$, $\eta^2 = 0.04$; Negative model: $\beta = 1.57$, $SE = 0.60$, $p < .01$, $\eta^2 = 0.03$), and anger symptoms (Positive model only: $\beta = -1.11$, $SE = 0.49$, $p < .05$, $\eta^2 = 0.02$; Negative model: $p > .05$). This effect also significantly interacted with time for anxiety, where children who were not treatment naïve experienced a steeper slope of change (greater symptom reduction over time) relative to children who had not received mental health services in the past (Positive model: $\beta = -0.11$, $SE = 0.06$, $p < .05$, $\eta^2 = 0.005$, see Figure A6 in the Appendix). This interaction was non-significant for the anxiety (negative model only), anger and depression models ($ps > .05$) reflecting parallel slopes of change over time. The absence of a significant main effect across both anger models and only one significant interaction across both anxiety models suggests that the variance in these symptoms attributed to past mental health services may be in part accounted for by a variety of factors.

In Model 9, caregiver gender (female gender coded as 0) was not a significant predictor of baseline anxiety, anger, or depressive symptoms ($ps > .05$ for both main effects and interactions), suggesting that the gender of the participating caregiver did not predict baseline or post-intervention differences in child mental health symptoms. However, this study included a small number of male (10%) and gender non-conforming caregivers (1%); thus, this result may reflect the overrepresentation of female caregivers in the study sample. Finally, in Model 10, interactions between caregiver psychological distress and time were run; which were all non-significant ($ps > .05$), suggesting parallel slopes of post-intervention change across children, regardless of caregiver distress (i.e., no additional change was observed above-and beyond the contributions of this variable on baseline child mental health symptoms). Overall, children from smaller families experienced similar baseline symptoms but greater symptom reduction over time, across all domains. Further, children with a history of mental health services had higher baseline symptoms across all three domains, and faster recovery in anxiety symptoms over time. Significant effects and/or interactions were not observed for caregiver gender, the number of participating caregivers, or caregiver psychological distress.

Discussion

Brief, caregiver-focused EFFT programs represent an efficient and accessible approach within children's mental health care. This study had two primary goals: (1) Assess the nature and degree of change in parent-reported child anger, anxiety, and depression symptoms, contrasted across multiple children in the family following a brief 2-day EFFT workshop, and (2) explore the role of parenting behaviours in association with caregiver-reported children's mental health concerns. The following takeaways emerged from the results: (1) Child mental health symptoms are a function of stable between-child and between-family differences, alongside time-varying

patterns of change within children and families, (2) following an intensive EFFT caregiver workshop, children demonstrated cubic trajectories of recovery across anger, anxiety, and depressive symptoms; these changes were generally maintained up to 12-months post-intervention, and (3) important associations between parenting and children's mental health symptoms were observed, either as main effects or in relation to trajectories of recovery, such that higher family average and differential positive parenting, lower family average and differential negative parenting, and lower caregiver psychological distress, were associated with better functioning in children. In this study, parenting variables were modelled as independent variables, and not as dependent variables; as such, these results inform how children's mental health symptoms are associated with and fluctuate in response to family average and child-specific parenting (including positive parenting and negative parenting); however, they do not inform whether parenting practices changed as a result of brief EFFT.

Mental Health Concerns are Child- and Family-Specific, and they Fluctuate over Time

The analyses identified multilevel clustering of change processes following brief EFFT workshops. Children within families differed from one another in the intensity of their symptoms and each family had a unique mosaic of child difficulties (i.e., stable between child and between family differences), above and beyond within-child/family symptom reduction over time. Variance at the child level was observed for all outcomes, with family-level variance for anger and anxiety only. This pattern reflects that children's mental health is largely driven by child-specific effects (48-51%), reflecting idiosyncrasies in temperament, age, gender, and development, which is only estimable when multiple children-per-family are considered. However, these results also demonstrate that family-level clustering plays a role in anxiety and anger symptoms (siblings are more similar than non-related children), and general mental health

is a non-static process that unfolds over time (i.e., symptoms are amenable to intervention or other sources of change not captured by the study design, such as regression to the mean or spontaneous remission). These multilevel patterns of variation confirm and extend results from study 1 and other EFFT studies evaluating child-parent coping; they also mirror findings from a systematic review on the cumulative influence of individual, dyadic, and family effects within interpersonal processes across the family system (Eichelsheim et al., 2009; Sloss et al., 2025).

Considering individual characteristics that may have informed children's trajectories, younger children presented with higher anger symptoms, and older children had a greater incidence of depressive symptoms. Similarly, girls presented with greater internalizing concerns (anxiety and depressive symptoms) compared to boys, and gender minority children (though the latter group was not well-represented in this study). Finally, a history of mental health services predicted both higher anxiety symptoms and faster post-intervention recovery. These findings align with existing trends in children's mental health literature (Boyle et al., 2004; Gutman & McMaster, 2020; Leijten et al., 2018). When considering broader, family-wide influences that would have been shared by children across the family system, caregiver psychological distress predicted the intensity of children's mental health symptoms at baseline but not over time. Previous research has demonstrated that caregiver programs that include a focus on caregiver emotion regulation may help bolster child treatment outcomes (Everett et al., 2022). It may be that the intervention offered caregivers the tools to manage their own distress, in addition to their child's, reducing the intensity and/or impact of caregiver mental health symptoms on children over time, thereby accounting for the non-significant interaction over time (Maliken & Katz, 2013).

EFFT as a Tool for Transdiagnostic Child Mental Health Treatment

Children of caregivers receiving the brief EFFT intervention demonstrated (caregiver-reported) post-intervention improvements in anger, anxiety, and depressive symptoms. Negative cubic trajectories of change were observed for all three outcomes such child symptoms waxed and waned in a horizontal “s-shaped” trajectory over the course of the year following the program. Though these results cannot clarify how these children would have fared without an intervention, they are aligned with findings from other EFFT researchers in other samples who have observed reductions in transdiagnostic mental health symptoms following this program (Foroughe et al., 2023; Goveas et al., 2024). Furthermore, the significant effects observed between children for whom caregivers sought services for (target children) compared to their siblings, demonstrates that symptom intensity varies across children within the home. In particular, the parallel slopes observed across siblings between baseline to 3 months post-intervention suggest that family-wide benefits (across multiple caregiver-child dyads) were experienced in the family system following caregivers’ participation in the workshop. This result might reflect changes to the shared family environment because of “spillover” from change within caregivers and parent-child dyads (as catalysts for family-wide recovery; Cox and Paley, 2003; Nelson et al., 2009). Alongside the immediate post-intervention trends, the long-term opposing fluctuations in symptom intensity from 6- to -12-months post-intervention across siblings’ anger and depressive symptoms suggests that various non-shared (between-child) processes were also operating to influence children’s mental health. It may be that the reductions in siblings’ symptoms during periods of peak intensity in the target child reflect true symptom improvement. Conversely, they may reflect caregiver’s attunement to the child with the most serious concerns, resulting in reduced caregiver awareness of the relatively lower symptoms

experienced by other children in the home (Lønning et al., 2024). These findings dovetail with recommendations from a review on mental health outcomes for siblings of a child with severe mental illness which proposed that emotion-focused caregiver interventions with family-wide applications are one potential solution to addressing the diverse mental health needs across children within the same family (Lønning et al., 2024).

Holding the Tension: The Balance of Child-Specific and Family-Wide Parenting

In a recent meta-analysis and systematic review of multi-component parenting and caregiver mental health interventions addressing early childhood development and emotional well-being, Sager and colleagues (2024) discussed the need to isolate the unique and cumulative contributions of caregiver mental health and parenting behaviours as separate but nonetheless associated factors in family well-being; this study helps close that gap in the literature. Over and above of the role of caregiver psychological distress, families with a higher ambient level of positive parenting across all children in the home fared better in terms of their level of baseline anger and depressive symptoms and their long-term challenges with anxiety and anger in the year following brief EFFT compared to families with less overall positive parenting. The reverse effects for ambient negative parenting were observed on baseline anger and depressive symptoms but were not significant moderators of post-intervention improvement. This result could suggest that the intervention was associated with increased warmth, attunement, and sensitivity towards children, but not a reduction in hostile or unresponsive behaviours. However, the baseline level of negative parenting endorsed by the sample was close to the lowest possible score (i.e., the floor of the measure), meaning that statistically, there was not substantial opportunity (from a measurement perspective) to observe a reduction in the effects of negative parenting practices in relation to children's mental health symptoms over time.

In terms of differential parenting between children in the same home, both positive (favouritism) and negative differential parenting (disfavouritism) demonstrated the expected associations with children's mental health, especially for anger symptoms (depressive symptoms were predicted only by favouritism). The absence of significant interactions in this context (alongside non-significant main effects for anxiety symptoms) suggests that the previously discussed processes driving family average parenting may also apply to child differential parenting. At the same time, it is also possible that other factors accounted for the changes observed over time (e.g., it may be that the self-report measures captured caregivers' perceptions of their parenting more so than actual behaviour, or that the improvements in child symptoms reflect changes in child self-regulation, enhanced parent self-efficacy, reduction in caregiver blocks, or general improvement in child and caregiver positive coping (as in other studies of brief EFFT, Cordeiro, 2019; Sloss et al., 2025)). The hypothesized mechanisms through which EFFT is expected to confer benefits for child mental health is through a putative cascade of child symptom improvement, because of greater parent self-efficacy, reduced parenting distress, and more attuned parenting behaviours. At the level of differential parenting, it may be that caregivers were implementing EFFT principles in a way that was not captured by the measure, or that the existing main effects of the variables already included in the model left limited variance for these variables to further account for symptom fluctuations over time. Future EFFT research on differential parenting would benefit from child-report or observational paradigms to enrich and enhance the measurement of these child-specific processes.

The absence of a significant baseline association between average positive parenting and anxiety, but a significant interaction with symptoms post-intervention suggests that parenting processes were functioning differently pre- vs post-intervention. Positive and sensitive parenting

has been associated with children's psychosocial well-being and reduced risk for the development of mental health concerns; however, positive attunement to children's needs involves a balance between active listening *and* responsive action (i.e., both emotion and behaviour coaching when supporting children with mental health concerns; Refoua & Rafaeli, 2023; Ryan et al., 2017; Weinstein et al., 2023). A recent meta-analysis on the components of parenting interventions found that behavioural techniques may be especially critical for managing child anxiety symptoms (Rienks et al., 2025). As such, it may be that prior to the intervention, caregivers were engaging in more accommodation or overprotection of child anxiety symptoms (an often well-intentioned and seemingly helpful response) as a means of temporarily mitigating their child's distress. However, the intervention may have supported caregivers in adopting a recovery-informed approach (with reduced accommodation) following brief EFFT. If this was the case, it would contextualize the positive observed interaction between parenting behaviours and lower anxiety symptoms over time. Future studies may consider exploring this hypothesis by evaluating post-intervention differences in caregiver responsiveness to child distress (separate from overall warmth; as suggested by Meunier et al., 2012a).

Future Directions

One of the primary goals for this study was to explore change in children's mental health symptoms following brief EFFT. To this end, parenting practices were explored in relation to children's symptoms, and these were modelled as predictor variables. Given the demonstrated associations between these constructs and that one of the goals of EFFT is to impact how caregivers relate to their children, it would be valuable if future researchers explored whether EFFT affects change in positive and negative parenting practices over time. Secondly, this study took place during COVID-19 (a time where the incidence of child mental health concerns was

especially high and available services were much more limited). To maximize the availability of mental health supports for families during the study period, all participants received the intervention. Thus, causal conclusions cannot be drawn from these results, which may have been vulnerable to selection effects, given that all participants were treatment-seeking families interested in the EFFT program. Notwithstanding, the first registered clinical trial of EFFT programs is currently underway by other researchers and these preliminary results are consistent with existing EFFT literature, randomized controlled trial data for a similar, caregiver-focused intervention, Emotion-Focused Skills Training (EFST), and meta-analytic data from emotion-focused caregiver interventions more broadly; LaFrance et al., 2014; Seddon et al., 2025; Severinsen et al., 2026; Zahl-Olsen et al., 2023). These results inform hypothesized outcomes following EFFT workshops but cannot inform whether these differ from outcomes following no treatment or treatment as usual; while the field is awaiting the results of its first randomized clinical trial of EFFT, researchers might consider calculating a reliable change index (or a measurement-error corrected reliable change index), which could speak to the clinical significance of the observed program outcomes.

From a measurement perspective, it is important to acknowledge that the findings resulting from parent proxy reports of children's mental health and parenting practices are vulnerable to shared method variance and are distinct from child-self reports and direct observations of parenting behaviour (respectively). Notwithstanding, parent proxy and parenting perceptions data are significantly associated with child outcomes, especially for adolescent children when parents have their own history of mental health concerns (e.g., depression), as was the case for some families in this sample; Parent et al., 2014; Upton et al., 2008; Varni et al., 2011). Furthermore, studies with similar interventions have demonstrated higher coherence

between self-report and observational measures of parent affect and behaviour when caregivers were enrolled in an emotion-focused caregiver program (vs the waitlist control group), suggesting that treatment-involved caregivers may develop stronger self-awareness and attunement to children's symptoms, which, in turn, may have mitigated the risk of bias resulting from parent proxy and self-report measures in this study (Whalen et al., 2020). Future researchers may consider employing multi-modality and multi-informant data collection, and/or using cross-classified approaches to compare outcomes across multiple informants within the same family. Using these varied approaches would compliment and extend the findings from this study, bolstering the evidence for post-intervention associations between parenting and children's mental health trajectories following brief EFFT workshops.

From an analytical standpoint, though growth curve models have been completed in other studies with this dataset (see Sloss et al., 2025), the tested models were slightly underpowered; to address this limitation, care was taken to prune the models (based on theory and model parsimony), while also optimizing generalizability related to child age and gender by testing several samples, and the study findings were maintained. All models converged and no errors were included in the model outputs in RStudio. As analytical next steps for these analyses, replication with larger samples and exploration of model outputs across alternate multilevel model structures (e.g., 2-level multilevel model with a sandwich estimator to account for family-level clustering, given the low ICCs at the family level (level 3)) would offer valuable comparisons with these results. Based on previously established ranges for family-level variance estimates, theoretical importance in view of family-wide science, and identified research gaps in EFFT research, maintaining the family level within the analysis was prioritized in this study.

Conclusions

Brief and virtual caregiver-focused EFFT interventions represent an accessible and cost-effective avenue for children's mental health care. This study demonstrated transdiagnostic treatment gains in children's anger, anxiety, and depressive symptoms across multiple children in the family in the 12-months following the intervention. Reflecting a "family-wide" systems perspective, individual (child age and gender), caregiver (psychological distress), and dyadic (parenting practices and differential parental treatment) factors were all linked to the intensity of children's symptoms. Furthermore, family size, average positive parenting, and children's previous mental health treatment moderated trajectories of recovery. The longitudinal study design, and the trifold inclusion of caregiver and child mental health outcomes, alongside parenting behaviours, embody the recommendations proposed by other researchers when evaluating caregiver-focused interventions of this nature (Everett et al., 2021). This study is the first to identify family-wide treatment gains following brief EFFT while contrasting multiple symptom outcomes across several children in the family, and accounting for the dynamic role of parenting practices as a hypothesized pathway through which clinical benefits are conferred. Altogether, these results affirm the role of brief EFFT as an efficient and accessible children's mental health intervention that is associated with enduring and family-wide post-intervention recovery.

Chapter 3: Family-wide Predictors of Mental Health Service Utilization in the Year Following a Brief Emotion-Focused Family Therapy Intervention

Mental health problems presenting during the developmental period represent “about one-fourth of the mental disorder burden across the entire life course” (Kieling et al., 2024, p. 347). Thus, addressing child and youth mental health concerns through effective clinical interventions is of utmost importance. Yet, numerous barriers remain for many children and families. These include long wait times, stigma, affordability, scheduling, and geography, among others (Hansen et al., 2021; Sabey & LaFrance Robinson, 2018). Considering the persistent barriers that limit access to services, there is a demand for brief, low-cost, and high-impact interventions (Sabey & LaFrance Robinson, 2018). The growing development and popularity of online caregiver interventions like brief Emotion-Focused Family Therapy (EFFT), is one possible solution that is both efficient and cost-effective (Foroughe et al., 2022). EFFT was designed as a standalone clinical service, or an adjunctive treatment to individual psychotherapy, that may bridge gaps in mental healthcare. However, it is unclear which families utilize EFFT alongside one of many other services on their journey to recovery (Goveas et al., 2024; LaFrance et al., 2020). Though brief interventions in this format may be an accessible, and desirable treatment format for many families, it is expected that some families will desire or require additional services to adequately address their mental health needs.

Being able to identify the characteristics of families who will uptake more services following brief workshops could help with tailored approaches to care, keeping with the precision mental health movement. For example, if specific groups were identified as more likely to seek services, it would support the ongoing need for availability and development of mental health services to specifically address their mental health needs. To this end, it would also be

valuable understand which populations have demonstrated need for mental health services but experience barriers to mental healthcare seeking (though this study will not address that specific research question). Overall, mental healthcare seeking is multi-dimensional and may reflect different underlying motivations for different individuals. For example, often, higher service utilization often reflects greater levels of clinical need based on problem recognition, distress, and/or functional impact of symptoms. For children in particular, help-seeking may be prompted by caregiver perceptions that youth are unable to effectively cope with challenges, and/or their own distress related to observing their child struggling (Murphy et al., 2026).

For others, increased mental healthcare seeking might reflect comfort with services, readiness for change, motivation to engage in preventative care, or increased personal agency (Sawrikar et al., 2026).

To the writer's knowledge and at the time of writing, no studies have evaluated service utilization patterns following emotion-focused caregiver interventions, nor the factors predicting child and caregiver mental healthcare service utilization following brief EFFT. This is a noteworthy research gap as brief and intensive, virtual, group-based caregiver interventions of this nature are increasingly available within the landscape of children's mental health services, particularly since the COVID-19 pandemic (Foroughe et al., 2021). As such, it is unclear whether the predictors of mental healthcare seeking in families receiving these services are aligned with those of other populations (e.g., families receiving ongoing treatment as usual for children's mental health on a weekly basis), or if families seeking brief and intensive interventions of this nature represent a distinct profile of mental health seeking families. This would be particularly important to understand given that brief and online caregiver interventions may be perceived as more cost effective and accessible for families who experience finances,

geography, or stigma as barriers to mental healthcare seeking (LaFrance & Sabey, 2018). To this end, researchers have called for “expanding treatments [for children’s mental health] into nonclinical settings and improving child mental health literacy to improve appropriate parental help-seeking for child mental health concerns” (Sawrikar et al., 2026, p.25) . EFFT provides expansive psychoeducation related to the etiology of transdiagnostic children’s mental health concerns related to emotion regulation, virtual EFFT may feel more accessible for many families who can access the service from their homes, even when offered through virtual service delivery through an online clinical setting (LaFrance et al., 2020). As such, predictors of continued service seeking in families who received brief EFFT should be compared with the broader population of families seeking caregiver- and child-specific mental health supports. This information could be relevant for treatment planning, especially if social determinants of health or easily identifiable psychosocial factors predict greater or lesser service utilization, which might suggest that there are unique treatment needs within this population of caregivers (and children), relative to the general population. Though the present study does not comprehensively answer all of these questions, this study was designed to provide a preliminary exploration of the characteristics associated with continued treatment seeking where families had previously received an intensive, emotion-focused caregiver intervention. To this end, predictors of mental health service utilization in children, primary caregivers, and their partners were considered in the 12-months after brief, virtual EFFT in a major Canadian city.

Determinants of Child and Youth Mental Health Service Utilization

Understanding the determinants of service utilization within child and adolescent mental healthcare can be challenging due to the multiplicity of factors involved. Heflinger and colleagues (2002) proposed a framework for examining predictors of service use in child and

adolescent psychiatric hospital utilization. This model identifies predisposing (demographic factors, family relationships), enabling (e.g., family income, service history), and needs-based (symptom severity, coping capacity) factors as implicated in child mental health service utilization, and is aligned with recent research and policy calls and for population-wide, and caregiver-involved mental healthcare that accounts for complexity in family systems (Buka et al., 2022). This comprehensive model is both multilevel and family-wide, reflecting prominent theories of child development and family well-being, including Bronfenbrenner's bioecological model, the family stress model, and a systems-lens that takes into account both the *proximal* (child- and family-specific) and *distal* (socio-economic, community and service-system) influences that impact the relationship between child mental health needs and service access (Bronfenbrenner & Morris, 2006; Cook & Kilmer, 2010; Cox & Paley, 1997; Masarik & Conger, 2017).

The proposed model provides a systemic and “family-based standpoint” for examining the interactions between the family ecology (child, caregiver, and family characteristics) and patterns of mental health service utilization across individuals within the family system (Browne et al., 2010, p.134). Despite the strong theoretical and empirical justification for the Heflinger et al. (2002) framework, it has not yet been applied within outpatient parenting intervention research for children's mental health. A family's ability to access care, and their relative need for mental health supports, is simultaneously informed by variables directly related to mental health (e.g., child symptoms and overall impairment, caregiver mental health), and also broader factors such as general family functioning, financial stress, and adversity (Hansen et al., 2021; Reid et al., 2019). Furthermore, caregiver psychological distress has been indirectly linked to increased child contact with mental health professionals when children also have a physical illness

(Browne et al., 2011; 2013; Dol et al., 2025; Ferro et al., 2021). Accordingly, the present study will offer a fulsome investigation into the child and family processes implicated in child and caregiver mental health service use following brief and virtual EFFT workshops.

The Reciprocal Relationship between Caregiver and Child Mental Health

Research has demonstrated a bidirectional and reciprocal relationship between child and caregiver mental health, such that improvements for one individual in the family are often also associated with positive mental health gains for other family members (Wilkinson et al., 2021). This relationship is understood to arise from ongoing interpersonal exchange, across the family system; in the same way that shared environmental risk factors are compounded across the family unit, it is also the case that the benefits of an intervention for one individual or dyad in the family system may reverberate throughout the family whole (Masarik & Conger, 2017; Nelson et al., 2009; Repetti et al., 2002). In other words, the clinical benefits associated with caregiver interventions are not isolated to only caregivers, or children, but rather, family-focused interventions position caregivers as the initial catalysts or “change agents” that can function to promote family-wide mental health recovery. Thus, centering the family as the client within children’s mental health care (i.e., seeing “the family” as the client, and administering family therapy and caregiver-involved interventions), serves a preventative function for minimizing both long-term morbidity and healthcare costs not only for the clinically identified child, but for the whole family, including siblings and caregivers (Buka et al., 22; Crane et al., 2011).

From a broader social and family systems perspective, it is valuable to consider family-wide patterns of service use across multiple individuals (and roles) within the same family. Research from the World Health Organization has demonstrated that children of caregivers presenting with a mental health concern are 12.4% more likely to experience mental health

challenges themselves (McLaughlin et al., 2012). Calls for integrative (joint caregiver and child intervention), preventative, and family-focused practice in children's mental health care have been recommended as a solution to the shared vulnerabilities between caregivers and children in this context; however, such a comprehensive approach is often difficult to apply in clinical practice (Stolper et al., 2024). Though caregiver programs such as brief EFFT are not in themselves a caregiver mental health intervention, core intervention techniques directly address caregiver emotional processing (i.e., addressing caregiver emotion "blocks"), and research has demonstrated that this program is associated with positive trajectories of caregiver well-being (including lower psychological distress, stronger self-efficacy, and more resilient positive coping), above and beyond child-specific outcomes (Ansar et al., 2021; 2023; Foroughe et al., 2023; Sloss et al. 2025).

Findings from a recent meta-analysis highlighted that caregiver mental health outcomes are seldom considered in the context of attachment and emotion-focused caregiver interventions (compared to process-related elements like parenting sensitivity), despite that caregiver mental health has been identified a mediator of outcomes following behavioural caregiver interventions (Jugovac et al., 2022). Previous research on EFFT (and a sister intervention, Emotion-Focused Skills Training (EFST)) has demonstrated the bidirectional role of caregiver psychological distress in association with post-intervention family functioning, and children's mental health; however, no studies have evaluated how caregiver mental health predicts caregiver service utilization following brief EFFT (and EFST) interventions (Ansar et al., 2023; Colucci et al., 2026). This is a valuable construct to explore given that, in EFFT interventions, parents are uniquely centralized as "change agents" in the process of children's mental health recovery; thus, it would be interesting to explore what factors predict continued mental healthcare seeking for

this group of caregivers and their children, which future researchers could then compare with families who had not participated in programs of this nature, providing a clear comparison of whether caregivers seeking brief EFFT (and similar programs) continue to seek services based on specific psychosocial needs, family stress, or simply interest in participating and the availability of continued services (LaFrance et al., 2020). Thus, alongside an analysis of child mental health service use, a family-wide approach to exploring patterns in this area also includes consideration of determinants of service use at the caregiver level. Existing research has demonstrated differential predictors in association with child versus caregiver mental health service use, and caregiver psychological distress has been indirectly linked to increased child contact with mental health professionals when children also have a chronic physical illness (Browne et al., 2011; 2013; Dol et al., 2025; Ferro et al., 2021). However, additional research is still needed to clarify patterns of mental health service access across families who are seeking out short-term and transdiagnostic caregiver intervention services with individual-level data across family roles. As such, this study explored mental health services across children, and up to two caregivers per family (henceforth referred to as “primary caregivers” and “partners” to differentiate between caregivers in the same family). Results from this study will inform targets for preventative and personalized mental health care services that are designed for families with high levels of treatment seeking (i.e., Though high service utilization is not always necessarily equivalent to increased need for services, for individual children and families where that is the case, research that clarifies what factors predict higher caregiver and child mental health service utilization will offer direct clinical applications). In other words, having specific criteria by which to identify families with the greatest need for mental health interventions would enable clinicians to engage in preventative treatment planning. Such an approach would be aligned with

calls for integrative, family-wide mental health care, which aims to minimize long-term family-wide morbidity stemming from mental health concerns (Stolper et al., 2024). As such, this study explored mental health services across children, caregivers, and their partners.

Emotion-Focused Family Therapy (EFFT)

After the pandemic, the field of children's mental health experienced a rapid deployment of online service provision to compensate for the widespread inaccessibility of many mental health services (Danseco et al., 2021). This change also included virtual offerings for short-term caregiver group interventions like Emotion-Focused Family Therapy (EFFT) workshops (Foroughe et al., 2022; van Leuven et al., 2022). Such shifts in the landscape remain today and evidence from a randomized clinical trial of a similar virtually delivered emotion-focused caregiver intervention demonstrated that virtual caregiver programs effectively reduce children's mental health problems (Burkhardt et al., 2024). Further, recent studies have established that virtual formats enhance engagement in group caregiving interventions (relative to attendance rates for the same intervention delivered in person), particularly for families from minority backgrounds, who experienced greater barriers to service access during the COVID-19 pandemic (Buchanan et al., 2025; Sanchez et al., 2024). Pre-existing in-person caregiver interventions that pivoted to virtual delivery during the pandemic, including brief EFFT, continue to be offered in both virtual and in-person formats (Foroughe et al., 2022). As such, there remains an increased accessibility of short-term, virtual programs for busy families seeking support for child mental health concerns, broadly defined. Programs of this nature attract families with diverse mental health needs. For some families, caregivers seek out brief EFFT to bolster their caregiving skills and to maintain positive child and family well-being (Bøyum & Stige, 2017). However, EFFT is also sought out by caregivers of children with a high degree of mental health need, including

comorbidities, and the intervention functions as an adjunctive support on their journey of recovery, after which, services continue to be required (Foroughe et al., 2019; LaFrance et al., 2020). For many families, a singular short-term intervention can function to meaningfully shift the trajectory of family recovery, with sustained gains over time, *and* this study sought to identify what factors predict continued family mental health service utilization in the population of families seeking out brief EFFT.

Brief, virtual, caregiver-focused EFFT workshops represent an opportunity to offer accessible and broadly applicable mental health supports for caregivers and families. EFFT is a transdiagnostic theoretical orientation, and brief EFFT workshops are well-suited for virtual intervention delivery (LaFrance et al., 2020). These features (short term, virtual, and transdiagnostic) are emerging areas of research in children's mental health treatment, and programs of this nature require additional empirical investigation surrounding predictors of post-intervention service use (Buka et al., 2022; McGorry & Mie, 2018). Though some research has been conducted on barriers to and predictors of service access for short-term *behavioural* parenting interventions and early childhood systems of care, no studies have explored predictors of service use following *emotion-focused* caregiver programs for children's mental health (Weisenmuller & Hilton, 2020). EFFT was developed as a flexible intervention with a relational emphasis. Correspondingly, this program tends to recruit caregivers of children with complex and transdiagnostic mental health needs across both internalizing and externalizing disorders, along with challenges in parent-child relationships and general family functioning (Goveas et al., 2024; Foroughe et al., 2019). Thus, research that identifies factors implicated in mental health service utilization following emotion-focused interventions will compliment and extend existing research surrounding parenting programs with a behavioural emphasis.

The Current Study

Researchers have called for studies to identify whether the same predictors are associated with both children's mental health outcomes *and* patterns of mental health service use (Edbrooke-Childs et al., 2022). Though there is a well-established evidence base surrounding factors associated with children's mental health recovery, it is unclear whether the same factors are implicated in children's ongoing need for mental health services. If it is the case that the same factors are associated with both domains, it might suggest that the services being accessed are appropriately tailored to the characteristics and clinical needs of those seeking them (i.e., that services are the ideal "match" for those they are being received by). Conversely, if there exists a divide between what predicts *treatment seeking* and factors implicated in *recovery as a result of treatment*, it might suggest that there are groups who are seeking services in predictable ways, but for whom treatment is not necessarily offering maximal benefit (and correspondingly, research might then be undertaken to explore why those differences exist). To this end, it would also be informative to understand groups that represent high levels of *need or desire* for services, but are less frequent treatment seekers. Thus, this study sought to address some of the above-mentioned research gaps by identifying factors that predict family mental health service utilization following brief EFFT, and to contextualize those findings with the existing understanding of factors that are associated with positive post-EFFT trajectories of recovery and general predictors of mental healthcare seeking for children and their caregivers. Thus, a family systems lens was applied to explore the role of individual-specific and family-level factors in predicting post-intervention child and caregiver mental health service use following a brief EFFT caregiver workshop.

The following research questions were considered: (1) What are the individual-specific and family-wide predictors of child-specific mental health service? and (2) What are the individual-specific and family-wide predictors of caregiver (caregiver and partner) mental health service use? Based on previous research on predictors of service utilization across various populations (Browne et al., 2013; Ferro et al., 2022; Gallant 2022; Heflinger et al., 2002; Saunders et al., 2022; Serbin et al., 2014; Urusov, 2023), it was hypothesized that greater mental health service use will be predicted by higher COVID-19 disruption, lower family functioning, greater positive parenting practices (reflecting increased sensitivity to children's mental health needs, though research has also shown an association between fewer positive parenting practices and higher child mental health symptoms), higher caregiver psychological distress, having a partner, female caregiver and female child gender, greater child mental health symptoms, previous service use access, and older child age. The strongest predictor of child-specific service use will be child mental health symptoms, while the strongest predictor of caregiver-specific service use will be caregiver psychological distress. The most novel aspects of this analysis include that no previous studies have assessed predictors of service utilization across family roles in families seeking emotion-focused caregiver interventions, including, and specifically, brief EFFT.

Methods

Participants

The study sample consisted of a longitudinal cohort of caregivers (n= 159, representing 124 families and 264 children; excluding data from participants who withdrew from the study, and whose data was removed) participating in a brief EFFT workshop as a transdiagnostic, caregiver-focused intervention for children's mental health concerns. Using a single-cohort

design, the intervention was offered virtually through a mid-sized private mental health agency in Toronto, Ontario. Participants attended one of 11 workshop offerings between September 2020 and February 2022. All workshop participants were eligible to participate in the study, including more than one caregiver from the same family ($n=35$, 22%). For each family, the “primary caregiver” was designated as the caregiver who registered for the workshop (or in the case of dual-participating families, the caregiver that registered first). With pre- and post-intervention questionnaires, caregivers reported on their own and their children’s outcomes, including up to four children per family ($M = 2.15$ children/family, $SD = 0.83$; 18% ($n=21$) of families had one child, 53% ($n=62$) had two children, 26% ($n=31$) had three, and 2% ($n=4$) had four or more). Service use data was only collected for the child for which caregivers were primarily seeking services due to measurement burden on families (i.e., the target child, also known as the “Identified Patient” or IP in family therapy parlance, Crane, 2011; Minuchin, 1981). Due to breadth of the sample participants (age and family structure), the analysis was conducted using data reported by one caregiver per family on behalf of themselves, their partner, and the child for whom they sought mental health services for children aged 5-25 years of age ($n=118$). For other studies with similarly wide age ranges, studying service use and EFFT workshops (respectively), see Browne et al., 2013; Thurston et al., 2010; Sloss et al., 2025. While this is a large age range, one of the strengths of the EFFT model is that it is not only transdiagnostic, but trans-developmental, whereby the foundational clinical tools can be tailored to family members across the lifespan. This approach to exploring mental health associations across early childhood through early adulthood parallels the age range selected for global incidence research evaluating the burden of disease (including child mental health concerns)

across the developmental period (Kieling et al, 2024). It is also consistent with research advocating for a “life course” perspective in children’s mental health (Burke et al., 2022).

All reported sample details, including the tables, and the methods, results, and discussions sections reflect the $n=118$ sample. On average, caregivers were 46.75 years old ($SD = 7.02$ years, range: 30-78 years). The child they were primarily seeking services for was 12.58 years old on average ($SD = 4.00$ years, range: 5-25 years). Participants were majority women (89%), alongside men (10%) and one gender non-conforming caregiver (1%). Children were majority boys (50%, including cisgender boys and one transgender boy), alongside girls (45%), and gender non-conforming children (5%). For the analysis, dummy variables were created for caregiver and child gender to maximize the available study data; “female” was the reference category, with male and all other gender identities coded as 1. A separate category for gender minority caregivers (and children) was not created due to the very small sample of participants ($n=1$ caregiver (1%), $n=7$ children (6%)); however, a sensitivity analysis was run removing data from these participants, and the pattern of results was maintained. In terms of ethnicity, caregivers were primarily White (75%), with participants from various backgrounds, including South Asian (11%), East Asian (6%), Black (3%), Indigenous (3%), Hispanic (2%), Caribbean (1%), Middle Eastern (1%), and other backgrounds (6%). Most caregivers were married, common-law, or living with their partner (74%), with 8% of participants living apart from their partner; including both opposite-sex (98%) and same-sex couples (2%, $n=2$). Fifteen percent of caregivers were single caregivers, and 3% were in other relationship structures. Caregivers were asked their highest level of education (37% certificate or degree above a bachelor’s degree, 38% bachelor’s degree, 4% university certificate, 17% college or diploma, and 4% high school diploma), and their monthly household income bracket ranging from \$0-\$1600 to \$8300+/month

(Median = \$6601-\$8300 CAD). Most caregivers were biological parents (73%); however, others had children through blended families (18%), adoption (5%), or kinship relationships (e.g., an aunt or grandparent; 3%).

Procedure

The procedure for this study was identical to that of study 1, discussed on pages 30-31.

Measures

With the exception of service utilization, all measures in this study were completed at the pre-workshop baseline. Service utilization measures were completed at 12-months post-workshop.

Child and Caregiver Mental Health

Child mental health symptoms were assessed with the Patient Reported Outcomes Measurement Information System (PROMIS) Parent Proxy Scales Short forms from HealthMeasures.net, funded by the National Institutes of Health (NIH; Varni et al., 2012). These scales assessed for depressive (v 2.0, 6a;6 items), anxiety (v2.0, 8a;8 items) and anger (v2.0, 5a;5 items) symptoms with a five-point Likert scale ranging from (1) *Never* to (5) *Always*. Higher scores suggest the presence of more symptoms. All three scales were summed into a single score with excellent reliability ($\alpha = .93$). In addition to study baseline, child PROMIS measures were also completed at 12-months post-workshop, with excellent reliability ($\alpha = .96$). Caregiver mental health was assessed through the Kessler Psychological Distress Scale (K10; Kessler et al, 2002). This 10-item scale measures caregiver experiences of psychological stress including low mood and hopelessness, nervousness, and somatic symptoms, among others. Participants were asked to report their experiences during the last 30 days on a 5-point Likert scale, with responses

ranging from 0- *None of the time* to 4 – *All of the time* and higher scores indicating a greater degree of psychological distress. Internal consistency of the K10 was good ($\alpha = .87$).

Parenting Practices, Family Functioning, and Mental Health Service Utilization

To assess parenting behaviours, participants completed the Parent Practices scale from the epidemiological 2014 Ontario Child Health Study; Statistics Canada, 2017). Using a 5-point Likert scale ranging from (1) *Never* to (5) *Always*, this 10-item measure assesses the frequency of positivity and negativity in parenting attitudes and behaviours (e.g., enjoying a child's company, speaking well of the child, nagging, and yelling). For the total score, positive and negative items are summed together, and negative items are reverse scored so that higher scores reflect a greater frequency of positive parenting behaviours and/or lower frequency of negative/hostile behaviours. The internal consistency of this scale was acceptable ($\alpha = .77$).

Family functioning was measured using the General Functioning subscale (GF6+) of the McMaster Family Assessment Device (FAD; Boterhoven de Haan et al., 2015). This six-item measure assesses family connectedness and problem solving, on a four-point scale (1 - *Strongly Disagree* to 4 - *Strongly Agree*). Scores were averaged for interpretation (1.0 to 4.0); scores ≥ 2.0 reflect “unhealthy” functioning, and scores < 2.0 suggest “healthy” functioning. The internal consistency was excellent ($\alpha = .90$).

Mental health service utilization was measured using an adaptation of the Health and Social Service Utilization Inventory (HSSUI; Browne et al., 2001; 2013). This measure is one among only a handful of validated tools for assessing service use, and the adaptation has been used in other works studying this construct (Browne et al., 2011; 2013; Ferro et al. 2021). At 12-months post-intervention, caregivers were asked to:

Please indicate the number of mental health care service visits you and your family have received since you participated in your original EFFT service with the Centre (e.g., the EFFT

Workshop). Caregivers were asked to report the number of sessions separately for their child, themselves, and their partner. This measure did not capture the nature of the service beyond its recipient (i.e., whether caregiver-specific services were those for their own needs (e.g., individual therapy), versus those of their children (e.g., parent interventions), or both). Mental health services were operationalized as those received by a psychologist, psychotherapist, counsellor, and family therapist. At pre-intervention baseline, caregivers were also asked a yes/no question about whether they, and their child had previously received mental health services in the past, including services from psychology, psychiatry, social work, or another unspecified mental health service.

Missing Data

From the overall sample, 6% of participants withdrew consent from the study due to dissatisfaction or change of interest. Further, a few caregivers (10%) had atypical survey completion (e.g., missing attention checks; discussed further in the Appendix). For the child PROMIS anxiety scale (and corresponding total score), one response was invalid (and removed) due to partial completion of the survey questions, resulting in inestimable summary scores. No similar issues were observed with the other variables. Using the metric of ± 3 standard deviations from the mean for outlier detection, zero to two univariate outliers ($<2\%$ of cases/variable) were found for each of the study variables. No outliers were found for the remainder of the independent variables. For the dependent variables (mental health service use count data), one (child, primary caregiver) to three (partner) univariate outliers were identified ($<3\%$). Given that outliers in count data are not only expected, but understood to represent true, extreme values of clinical relevance (reflecting families with the highest clinical need and greatest service utilization), analyses were run both with the data as is, and with winzorization.

Except where noted in the Appendix, the results were consistent across both iterations of the analysis.

When Mahalanobis Distance was run, no multivariate outliers were found at the $p < .001$ level. When Littles (1998) Missing Completely at Random (MCAR) test was run on all variables, there was a non-significant result for both the child model ($\chi^2(87) = 76.20, p = 0.789$) and the caregiver model ($\chi^2(48) = 44.07, p = 0.634$), suggesting that the MCAR assumption was not rejected and that missing data were random in nature. The independent variables had a limited amount of missing data ($\geq 86\%$ complete data/variable), and data completeness in the dependent variables (mental health service use) was relatively consistent across family roles (Primary caregiver: 77% retention; Child: 72% retention; caregiver's partner: 71% relative retention (n=95 families with partners (83% of the sample; 17% single families), with n=67 completing questionnaires for their partner at Time 5). Missing data in the dependent variable was attributed to attrition (common in longitudinal studies of this duration – 12 months). Given that missing data was MCAR, data imputation was not conducted.

Data Analysis

A Mann-Whitney U Test (Wilcoxon Rank Sum Test) was used to compare median number of mental health sessions between children, and caregivers. Zero-inflated negative binomial (ZINB) regression analysis was used to address the remaining research questions. This approach has been designed for data with non-normal distributions due to a high number of “zero” responses and large discrepancies between the highest and lowest responses from participants (i.e., overdispersion; Ridout et al., 2001). For each individual-specific service variable, zero-counts comprised 33-61% of responses. ZINB models account for a greater level of heterogeneity in response distributions compared to regular negative binomial regression; this

was ideal for the study sample as past literature has identified differences in high versus low service use in families (UCLA: Statistical Consulting Group, 2024). These models were able to explore both the predictors associated with the probability of being a service user (versus using no services at all), addressed through the logistic regression or logit model, and the probability of using a greater number of services (among those who accessed mental health services), addressed by the count model. As such, the results include both a negative binomial count model and a zero-inflated logit model for predicting excess zeros. Within the logit model, odds ratios (OR) are reported to support model interpretation, and in the count model, Incident Rate Ratios (IRR), in lieu of standardized effect sizes like Cohen's d which require normally distributed data (Atkins, 2007). These values are calculated by exponentiating the beta coefficient from the negative binomial model. OR values reflect the relative odds of being a service user vs not accessing services in the post-intervention period, and IRR values relative odds of using a greater number of services in the post-intervention period.

The analyses were preregistered (<https://osf.io/ywf3q/overview>) and conducted in RStudio using the *pscl* package (Jackman, 2014; Zeileis et al., 2008). The independent variables were the predictors of service use. For the child model, those included child age, gender, mental health symptoms, history of receiving mental health services prior to the study, parenting practices, caregiver psychological distress, family functioning, monthly family income, and COVID-19 family disruption. For the primary caregiver model, predictors included caregiver gender and ethnicity, child mental health symptom severity, caregiver psychological distress, history of receiving mental health services, relationship status, family functioning, monthly family income, and COVID-19 family disruption. Ethnicity data was collected for caregivers but not for children. The dependent variable for each respective model was the number of mental

health sessions received by each family member. These variables were selected based on previous studies and the Heflinger et al. (2002) framework which identifies predisposing (demographic and family factors), enabling (e.g., family income, service history), and needs-based (symptom severity) factors as implicated in child mental health service use trends in an inpatient sample. The partner model was modified based on the available variables within the dataset, including partner gender, child mental health symptom severity, history of their partner (the original participating caregiver) receiving mental health services, income, COVID-19 disruption, and whether the partner also attended the EFFT workshop. When the partner model was attempted using ZINB regression, the logistic model had unusually high standard errors. Thus, the partner model was run using binary logistic regression on its own, whereby the dependent variable reflected whether participants were or were not service users (coded as 0 or 1), without a corresponding count model that explored the probability of using more or less services. The ZINB models for children and primary caregivers included both a logistic regression model and a count model). Finally, as an exploratory analysis across all three models, a difference score was calculated for child mental health by subtracting the 12-month follow up PROMIS score, from the baseline score, representing the degree of post-intervention change in child mental health symptom (negative values reflect an improvement in mental health symptoms). This variable was added to explore whether the relative change in symptoms in the post-intervention year was associated with service utilization during that period (i.e., were those seeking services those who seemed to benefit (or not benefit) from the intervention, and vice versa).

Results

Descriptive statistics can be found in Table 13, and bivariate correlations in Tables A4-A6 in the Appendix. Mann-Whitney U tests indicated that: children's service use was comparable (i.e., not significantly different) to primary caregivers (*Mdn* for children = 5.00, *Mdn* for primary caregivers = 3.00: $U = 3453.50$, $z = -1.13$, $p = 0.26$), but significantly greater than that of partners (*Mdn* for children 5.00, *Mdn* for partners = 0.00, $U = 1808.50$, $z = -3.96$, $p < .001$). Additionally, primary caregivers accessed significantly more services than their partners (*Mdn* for primary caregivers: 3.00, *Mdn* for partners = 0.00, $U = 2218.50$, $z = -3.11$, $p = 0.002$), a result which may reflect gender differences inherent to the sample of female primary caregivers (89% women) versus their primarily male partners.

Table 13

Descriptive Statistics for Study Variables in Study 3

Variable	<i>M (SD)</i> or %	Median and Range
Child History of Mental Health Services	72%	-
Primary Caregiver History of Mental Health Services	78%	-
Child PROMIS Baseline Total Score	52.51 (13.81)	-
Child PROMIS Difference Score	-10.63 (13.26)	-
Parenting Practices	37.21 (5.04)	-
Primary Caregiver Psychological Distress (K10)	21.77 (6.53)	-
Family Functioning (FAD)	2.05 (0.53)	-
COVID-19 Disruption	27.47 (5.99)	-
Number of Child Mental Health Sessions	11.75 (16.65)	5.00 0-80
Number of Primary Caregiver Mental Health Sessions	8.63 (12.59)	3.00 0-48
Number of Partner Mental Health Sessions	4.01 (9.09)	0.00 0-40

Note: Service use variables were measured at 12 months post-intervention. All other variables were measured at pre-intervention baseline. FAD = Family Assessment Device, K10 = Kessler Psychological Distress Scale. For all scales except for Parenting Practices: Higher scores suggest greater challenges. On the Parenting Practices scale, higher scores suggest more positive parenting behaviours and fewer negative/hostile parenting behaviours.

Question 1: Predictors of Child Mental Health Service Utilization

Model results are included in Table 14. In the logit model, younger child age was associated with greater log odds of being a service user ($B = -0.28$, $SE = 0.14$, $p = 0.039$, $OR = 0.75$, $CI = 0.58, 0.99$). When age was further broken down into age brackets and added to the model as individual dummy variables (i.e., with children ages 5-12 years coded as “1” and all other ages coded as “0”, and so on for other age groups), children in middle childhood (ages 5 to 12; $B = 2.25$, $SE = 1.00$, $p = 0.03$, $OR = 9.49$, $CI = 1.33, 67.64$) had higher log odds of accessing services relative to participants in adolescence and emerging adulthood, independent of child mental health symptom severity. No other predictors in this model differentiated service users from non-users ($ps > .05$). In the count model predicting the likelihood of seeking a greater number of services, boys and gender non-conforming children had a lower rate of sessions accessed for mental health (a lower log count) compared to the girls ($B = -0.77$, $SE = 0.27$, $p = 0.004$, $IRR = 0.49$, $CI = 0.29, 0.83$). In other words, girls accessed more mental health services. Similarly, children presenting with a higher level of mental health concerns ($B = 0.03$, $SE = 0.01$, $p = 0.01$, $IRR = 1.02$, $CI = 1.00, 1.05$) and children from families with *higher* income ($B = 0.22$, $SE = 0.11$, $p = 0.048$, $IRR = 1.24$, $CI = 1.00, 1.53$) were more likely to access a greater number of mental health sessions, though the finding for income was at the cusp of the significance threshold. Variation in other predictors was not associated with differential rates of mental health service access in this sample ($ps > .05$). When the exploratory child PROMIS difference score between baseline and 12-months post-intervention was added to the model, this variable did not significantly predict log odds of being a service user, or the count of post-intervention sessions accessed ($ps > .05$).

Questions 2-3: Predictors of Caregiver Mental Health Service Utilization

Model results for the primary caregiver are included in Table 14. In the logistic model, caregivers with *lower* income had greater log odds of being service users than non-service users ($B = -0.67$, $SE = 0.31$, $p = 0.030$, $OR = 0.51$, $CI = 0.28, 0.94$). No other predictors (including the child PROMIS difference score) significantly differentiated service users from non-service users ($ps > .05$). In the count model predicting the likelihood of seeking a greater number of services, when the primary caregiver had a history of mental health services, that was associated with a greater log count of post-intervention mental health sessions accessed by the caregiver ($B = 1.55$, $SE = 0.54$, $p = 0.004$, $IRR = 4.69$, $CI = 1.62, 13.57$). No other predictors (including the child PROMIS difference score) were significant in the count model ($ps > .05$). For parsimony, it was not retained within the model.

Model results for partners are included in Table 15. In the logistic regression model for partners, there was a marginally significant effect where male partners had a lower log odds of being mental health service users relative to female partners ($B = -3.02$, $SE = 1.54$, $p = 0.049$, $OR = 0.05$, $CI = 0.002, 0.99$). There were no gender non-conforming partners in this sample. Partners had higher log odds of being service users if they were from families with a *higher* monthly income ($B = 0.91$, $SE = 0.38$, $p = 0.016$, $OR = 2.48$, $CI = 1.19, 5.19$). No other predictors differentiated service users from non-users ($ps > .05$). When the child PROMIS difference score between baseline and 12-months post-intervention was added to the model, this variable was non-significant ($p > .05$).

Table 14*Model Results Predicting Post-EFFT Mental Health Service Utilization by Family Role*

Child Service Utilization				
	Logit Model		Count Model	
	<i>B [CI]</i>	<i>SE</i>	<i>B [CI]</i>	<i>SE</i>
Intercept	11.52* [0.46, 22.57]	5.64	0.19 [-2.95, 3.33]	1.60
Age	-0.31* [-0.59, -0.03]	0.14	0.02 [-0.06, 0.10]	0.04
Gender	-0.27 [-1.89, 1.36]	0.83	-0.77** [-1.29, -0.25]	0.27
Child Mental Health (PROMIS)	0.04 [-0.02, 0.10]	0.03	0.03* [0.01, 0.05]	0.01
History of Mental Health Services	-0.47 [-2.31, 1.36]	0.94	0.11 [-0.48, 0.70]	0.30
Parenting Practices	-0.12 [-0.29, 0.05]	0.09	0.04 [-0.02, 0.09]	0.03
Caregiver Distress (K10)	-0.14 [-0.29, 0.01]	0.08	-0.00 [-0.05, 0.05]	0.03
Family Functioning (FAD)	-0.98 [-3.06, 1.11]	1.06	-0.40 [-1.01, 0.21]	0.11
Monthly Income	-0.52 [-1.11, 0.07]	0.30	0.22* [0.002, 0.45]	0.03
COVID-19	0.05 [-0.11, 0.21]	0.08	-0.02 [-0.08, 0.04]	0.28

Primary Caregiver Service Utilization				
	Logit Model		Count Model	
	<i>B [CI]</i>	<i>SE</i>	<i>B [CI]</i>	<i>SE</i>
Intercept	3.47 [-1.79, 8.72]	2.68	0.46 [-2.24, 3.16]	1.38
Gender	0.30 [-1.54, 2.14]	0.94	0.30 [-0.78, 1.37]	0.55
Ethnicity	1.30 [-0.19, 2.80]	0.76	0.54 [-0.34, 1.41]	0.45
Child Mental Health (PROMIS)	0.01 [-0.04, 0.06]	0.02	0.01 [-0.01, 0.03]	0.01
History of Mental Health Services	-0.40 [-2.29, 1.49]	0.96	1.55* [0.48, 2.61]	0.54
Caregiver Distress (K10)	-0.03 [-0.16, 0.09]	0.06	0.03 [-0.04, 0.10]	0.04
Family Functioning (FAD)	0.79 [-0.52, 2.11]	0.67	-0.08 [-0.93, 0.77]	0.43
Relationship Status	0.77 [-0.88, 2.42]	0.84	-0.36 [-1.14, 0.42]	0.40
Monthly Income	-0.67* [-1.28, -0.06]	0.31	0.06 [-0.20, 0.32]	0.13
COVID-19	-0.10 [-0.25, 0.05]	0.08	-0.01 [-0.07, 0.06]	0.03

Note. *B* = Beta, *CI* = 95% confidence intervals, *SE* = Standard Error. For gender, female was the reference category. PROMIS = Child PROMIS total score, K10 = Caregiver Psychological Distress, FAD = Family Assessment Device, COVID-19 = COVID-19 Disruption. * $p < .05$, ** $p < .01$, *** $p < .001$ or a statistically significant difference.

Table 15

Logistic Regression Model Results Predicting Post-EFFT Mental Health Service Utilization for Partners

Variable	<i>B</i> [<i>CI</i>]	<i>SE</i>
Intercept	-5.96 [-14.42, 1.24]	3.90
Gender	-3.02* [-6.77, -0.47]	1.54
Child Mental Health (PROMIS)	-0.01 [-0.07, 0.04]	0.03
(Primary Caregiver) History of Mental Health Services	1.26 [-0.65, 3.56]	1.04
(Primary) Psychological Distress (K10)	0.04 [-0.11, 0.20]	0.08
Family Functioning (FAD)	-1.35 [-3.35, 0.24]	0.90
Monthly Income	0.91* [0.24, 1.74]	0.38
COVID-19	0.16 [-0.01, 0.36]	0.09
Attended EFFT Workshop	1.31 [-0.35, 3.14]	0.87

Note. *B* = Beta, *CI* = 95% confidence intervals, *SE* = Standard Error. For gender, female was the reference category. PROMIS = Baseline Child PROMIS total score, K10 = Caregiver Psychological Distress, FAD = Family Assessment Device, COVID-19 = COVID-19 Disruption. **p* < .05 or a statistically significant difference.

Discussion

Brief, caregiver-involved EFFT programs represent an efficient and accessible form of mental health supports within children's mental health care. The goal of this study was to explore individual-specific and family-wide factors implicated in mental health service utilization for both caregivers and children. This study is the first of its kind to: (a) explore patterns of mental health service utilization following receipt of emotion-focused caregiver interventions, specifically, brief Emotion-Focused Family Therapy (EFFT), and (b) to identify characteristics of families seeking additional post-intervention mental health supports. With the recent proliferation of virtual and group-based caregiver intervention programs, following the COVID-19 pandemic, it is unclear whether families seeking emotion-focused programs like brief EFFT represent a distinct profile of mental health service users within the landscape of children's mental healthcare, or simply represent families seeking available services as needed/desired. As such, these results offer the possibility for comparison with predictors of service utilization with

children and caregivers receiving more standardized and ongoing interventions. The following takeaways emerged from the results: (1) Mental health service utilization following an intensive EFFT caregiver workshop is multiply determined, (2) both individual-specific factors and social determinants of health predict child and caregiver mental health service utilization, and (3) variables related to service utilization differed between children, primary caregivers, and their partners, demonstrating variability across caregivers within the same family.

Mental Health Service Utilization is Multiply Determined Based on Family Role

Consistent with the Heflinger et al., (2002) framework, these results reflect that multilevel individual and family factors predict patterns of mental health service utilization. For children, both proximal (individual-specific and needs-based factors like age, gender, and mental health symptom severity) and distal factors (family income) predicted service utilization. For primary caregivers and their partners, similar predictors were associated with service use, though the direction of income differed across roles. This study also demonstrated patterns of intra-individual continuity of help-seeking for mental health (i.e., a caregiver's history of having previously received mental health services made it more likely that they would access a higher level of services in the year following brief EFFT) – a pattern that could reflect an ongoing need for care (independent of current psychological distress), and/or reduced barriers in treatment seeking once connected to a provider. Further, the results of this study identified that younger child age (and specifically, age 5-12 years) had 9.5 times greater log odds of being service users, independent of child mental health symptom severity. Caregivers of children in middle childhood represented 55% of the sample, and 50% of those seeking services; thus, this finding may in-part reflect age-based trends of families seeking brief EFFT. Correspondingly these families may have also been more likely to seek additional post-intervention parenting supports,

consistent with challenges this developmental stage (Wong et al., 2017). Similarly, increased likelihood of service utilization in this age group may be a result of caregiver perceptions of the child's capacity to effectively cope with mental health challenges; one study found that caregivers of adolescents were less likely to seek professional mental health supports for their adolescent child's mental health distress when they perceived that the youth was able to exercise control over their symptoms (Murphy et al., 2026). In this study, primary caregivers of girls reported a higher number of services accessed relative to boys, consistent with population-wide trends during the COVID-19 pandemic (Saunders et al., 2022). This result was maintained after controlling for baseline mental health symptoms and post-intervention symptom change, suggesting that though girls did not have a greater mental health *need* relative to boys, caregivers were more likely to seek additional mental health services for their daughters. To this end, it is also possible that services were sought for all children, regardless of their gender, but at the time of study participation more girls had received those services or had agreed to engage. Notwithstanding, mental health symptoms in this study represented a composite of internalizing and externalizing symptoms; given that girls have a greater predisposition towards internalizing symptoms relative to boys, this finding around gender could reflect greater mental healthcare seeking based on symptom type (internalizing). Similarly, the finding that children with a greater level of mental health symptoms accessed a greater number of services, is consistent with population-level trends in children's mental health care (Wiens et al., 2020). Gender minority children were not well-represented in this study, illustrating an ongoing need to understand patterns of service utilization among 2SLGBTQIA+ youth populations.

Socioeconomic Factors Get “Inside the Family” System and Predict Service Utilization

When caregivers were studied separately, the primary caregiver, accessed more services when they had a history of help seeking, and they were more likely to access services based on *lower* income. Conversely, partners were also more likely to access mental health services when they were female and when there was *higher* family income (a finding that was also demonstrated in the child model). These results are broadly consistent with the family stress model, which contextualizes the practical and psychosocial strain that economic pressure exerts on caregiver and child well-being and the ways that increased financial resources can help alleviate and mitigate family-wide stress (Masarik & Conger, 2017). From this perspective, lower income may have operated as both a risk-promoting factor associated with greater risk for caregiver mental health challenges (leading to greater help-seeking), or a barrier to accessing private services (which partners and primary caregivers of children from more affluent families would have been less limited by). Families with lower income would have been vulnerable to greater psychosocial strain and mental health challenges, potentially prompting increased help-seeking through publicly funded avenues (e.g., hospital-based services, subsidized care, or publicly funded services elsewhere in the system). Conversely, wealthier families would have had access to greater resources and faced fewer resource-based barriers in the process of help-seeking. Finally, it is also possible that caregivers prioritized services for their child and their partner and only sought services themselves when in greater need (despite fewer financial means).

The finding that female partners and girls accessed a greater number of mental health services is consistent with research demonstrating gender differences (and disparities) in help-seeking behaviours (Frank et al., 2025). In this way, increased access could reflect higher mental

health need in this population (particularly for girls, as child service use was predicted by mental health symptom severity), greater openness towards mental health services, and/or barriers to accessing or receiving services for male and gender non-conforming participants. However, the absence of a parallel effect in the primary caregiver models suggests that this finding requires replication. Though it is surprising that parenting practices, caregiver psychological distress, relationship status, family functioning, and COVID-19 disruption did not predict service utilization patterns, these non-significant results are aligned with those of large cohort studies that showed a similar pattern when multiple family-wide factors were accounted for (Brattfjell et al., 2020; Moeineslam et al., 2026). Further, it is also valuable to acknowledge that caregiver distress, and interpersonal strain on parent-child and family relationships is not necessarily equivalent to a clinical level of mental health symptoms that require therapeutic support, and each family has a unique threshold for challenges that may prompt service help-seeking (Saunders et al., 2022).

The Role of Brief EFFT in Child and Caregiver Mental Health Service Utilization

Considering the role of EFFT in the context of mental health service utilization, this study identified several characteristics of families that were either more likely to be service users or more likely to access a higher number of mental health services in the year following a brief and virtual EFFT intervention. Higher-needs families seeking child mental health services were those with daughters, children in middle childhood, greater child mental health symptom severity, and higher family income. The profile for caregivers was more complex and varied between caregiver role within the same family: For primary caregivers, having a pre-intervention history of mental health services was associated with a greater number of sessions accessed post-EFFT. Similarly, female gender for partners was associated with greater odds of

being a service user following the intervention. Within families, both lower and higher income were associated with higher odds of accessing services, for primary caregivers and their partners, respectively, suggesting that this factor may operate differently roles.

Brief and virtual caregiver EFFT interventions serve to broaden the availability of mental health services for children and families and can be flexibly applied across children of all ages, transdiagnostic symptom presentations, and diverse family structures (LaFrance et al., 2020). They may also feel more accessible and less stigmatizing as an entry point into services compared to more formal and ongoing children's mental health services (Hansen et al., 2021; Sabey & LaFrance Robinson, 2018). EFFT techniques have been designed to support well-being across the family system (e.g., targeting change in parenting processes, which is expected to “spillover” across children's mental health, caregiver well-being, and family interpersonal relationships; Nelson et al., 2009). Thus, though not specifically evaluated in this study, this intervention may function to meet identified needs in children's mental health care.

Future Directions

This study has several strengths, and there remains a need for additional research on these constructs. Though caregiver proxy report data includes the potential limitation of shared-method variance and retrospective reports of service access over a one year period may be vulnerable to recall bias, research has demonstrated that closeness in family relationships (e.g., between partners, and between caregivers and children) may reduce judgement error in proxy reporting; given that this intervention was aimed at families seeking to strengthen parent-child relationships, these risks may have been partly mitigated (Phillips et al., 2024). Furthermore, caregivers' perceptions of whether youth are experiencing a mental health challenge (problem recognition) exerts a family-wide influence over whether treatment is sought (also known as

familial transmission of mental health help-seeking; DuPont-Reyes et al., 2024). Given that caregivers are the individual arranging mental health services in most instances, parent-report measures remain a valuable measurement approach in this context.

Should future researchers desire to replicate this study, it would be valuable to account for a variety of service features that were beyond the scope of this analysis, including service sector, provider type, nature, duration, frequency and context of services, presenting concerns, service availability, treatment satisfaction, and barriers to service access. To this end, it would have been valuable to explore costs to society associated with mental health service utilization; however, this was not practical in the study sample, as participants were not asked to differentiate between publicly funded versus privately accessed mental health services. Finally, this study also did not explore whether broader health sector services were sought out to address mental health concerns (e.g., the emergency department, general medicine), though this has been documented in increasing prevalence in Ontario (the study jurisdiction), particularly for initial mental health help-seeking, and in children presenting with neurodevelopmental disorders, suicidality, and other mood- and anxiety-related concerns (Holland et al., 2022; Saunders et al., 2022). Furthermore, though findings are aligned with those of larger studies, results require replication. Future researchers may consider using Bayesian techniques, which can offer enhanced parameter estimation in complex data with overdispersion and rare outcomes (Lu & Lou, 2021). Nonetheless, by providing age-specific, individual-level and family-wide measures of psychosocial well-being, this study was able to contextualize service use from a multilevel and family-wide perspective, directly addressing numerous identified gaps in previous literature relevant to child and adolescent service utilization (Saunders et al., 2022).

Conclusion

Brief and virtual caregiver-focused EFFT interventions represent an accessible and cost-effective form of children's mental health care services. This study demonstrated that post-EFFT mental health service utilization is multiply determined and varied across family role. Factors varied across individual-specific and family-wide levels, suggesting that both proximal and distal aspects of the family ecology relate to mental health service utilization in the 12 months following a brief, intensive, caregiver-focused intervention. This study is the first of its kind to identify characteristics of families seeking additional mental health services following a brief EFFT intervention. It is also the only study exploring predictors of service use following emotion-focused caregiver interventions contrasted across children, and caregivers in the home. By addressing these identified gaps across both EFFT and mental health service use literature more broadly, these results identify characteristics of families seeking mental health services following brief EFFT, further clarifying the multilevel, family-wide factors implicated in mental health help-seeking for children and families in need.

General Discussion

The purpose of the present dissertation was to explore child, caregiver, and family psychosocial processes and family characteristics predicting mental health service utilization in the year following a brief EFFT intervention. Brief, virtual, and caregiver-focused EFFT programs represent an emerging area of transdiagnostic, children's mental health intervention. Existing research has suggested clinical benefits from this approach across multilevel family processes, including positive post-intervention trajectories for child and caregiver positive coping, caregiver self-efficacy, and child mental health (Foroughe et al., 2019; Goveas et al., 2024; LaFrance et al., 2020; Sloss et al., 2025). Studies to date have emphasized discrete child and caregiver outcomes focusing on emotional processing; however, this work contributes findings across several areas that were previously yet to be explored in this context. Those include, providing specificity in understanding post-intervention mental health trajectories over time and across siblings, clarifying the role of parenting dynamics in association with change within domain-specific children's mental health symptoms, understanding broader family interpersonal processes, and elucidating factors implicated in mental healthcare seeking so to clinically identify those for whom preventative and tailored interventions may be most needed.

The goals of the present dissertation were as follows: (1) Provide a fulsome analysis of multilevel, family-wide well-being in the 12-month post-intervention period following brief EFFT, informed by the tenets of family systems theory and the family stress model, (2) Explore the associations between multilevel family processes across the post-intervention period in a sample of caregivers receiving brief EFFT, and (3) Reflecting a family-wide perspective and the interpersonal and psychosocial complexity inherent to the family system, contrast findings across individuals in the family and across family roles. To address the identified goals, *study 1*

explored the factors implicated in post-intervention family functioning, in association with caregiver distress and parenting stress, while also accounting for between-family differences and within-family change over time. Subsequently, *study 2* provided a nuanced exploration of the associations between family-wide, and child-specific parenting positivity and negativity in relation to domain-specific children's mental health symptoms (anger, anxiety, and depressive symptoms) across up to four children per family. Finally, *study 3* identified factors implicated in post-EFFT mental health service utilization for both children and caregivers (primary caregiver and partner), clarifying role-specific characteristics that identify families with complex needs associated with higher levels of ongoing care. Key themes, and future directions are discussed below. For a discussion of *Strengths and Limitations of the Research Design*, including factors impacting internal and external validity, please see the Appendix.

Emerging Themes

Theme #1: EFFT Promotes Family-Wide Recovery in Relationships and Mental Health

A primary takeaway emerging from the present dissertation (and *studies 1-2* in particular) is that the potential gains from brief EFFT are not isolated only to the direct recipients of the intervention (in this case, caregivers), nor the child for whom they were primary sought. *In other words, “the family is the client,” and putative clinical gains extend across the entire family system* (Buka et al., 2023, p.1). This dissertation presents some of the first evidence of EFFT in association with discrete mental health symptom categories (namely, anger, anxiety, and depressive symptoms), discussed in *study 2* (Goveas et al., 2024; Wilhelmsen-Langeland et al., 2020). Aligned with the overall theoretical model and existing evidence demonstrating post-intervention reductions in transdiagnostic symptoms, these findings illustrate the suitability of EFFT for a wide variety of child mental health concerns as a widely accessible caregiver-focused

intervention (Foroughe et al., 2019; LaFrance et al., 2020). Furthermore, when considered in tandem with the parallel gains in family-wide interpersonal functioning (discussed in *study 1*), the present dissertation illustrates that EFFT techniques are adaptable across myriad family structures, reverberate across family interpersonal relationships, and are suitable for children of varying ages across the developmental lifespan.

Across anger, anxiety, and mental health symptoms, parallel slopes of recovery in children's mental health were observed across target children and their siblings up to 3 months post-intervention. This consistent finding across symptom categories and within families highlights that post-intervention trajectories of recovery extend to not only the clinically identified child, but also other children in the home. Though there may be one child in the family who has a higher level of mental health needs (historically “the Identified Patient”), *treatment is inherently a family affair and any intervention is not contained to its proximal recipient, but reverberates across distal layers of family organization*, as families mirror changes modelled by the caregiver across myriad dyadic interactions (i.e., from caregiver(s) to children, between caregivers, from children to caregiver(s), and from sibling to sibling; Havighurst et al., 2020; Minuchin, 1981). Aligned with the “one degree of difference” principle inherent to EFFT as a theoretical orientation, small changes can have a compounding and catalytic impact across the family system over time, such that, rather than any particular child or caregiver, the family system becomes the intervention target, and the whole family becomes “the client” that is ultimately benefitting from services through the modality of caregiver-focused interventions (England-Mason et al., 2023; LaFrance et al., 2020). Such an approach reflects a family-wide framework in clinical science, aligned with calls for research in children's mental healthcare that accounts for the layered relational structure, and the interpersonal and psychosocial complexity

inherent to the family system (Buka et al., 2024; McCarthy & Guerin et al., 2021). Moreover, it provides a clinically-relevant comparison of the relative treatment recovery trajectories post-EFFT across children's internalizing and externalizing symptoms – addressing previous calls for specificity between these domains related to the relative suitability of emotion-focused caregiver programs depending on the nature of a child's specific mental health concerns (Maliken & Katz, 2013).

Theme #2: The Family is an Interdependent System where Stress-related Vulnerabilities and Protective Factors Jointly Operate to Inform Child, and Family-Wide Well-being

The present dissertation reflects a systems-wide approach to understanding childhood well-being, reflecting both risk-promoting and protective (risk-reducing) factors, aligned with the tenets of the family stress model (Cox & Paley, 1997; Masarik & Conger, 2017). *Study 1* identified higher COVID-19 disruption, parenting stress, and caregiver distress in association with greater levels of baseline family interpersonal dysfunction, consistent with research demonstrating the cascading, deleterious linkages between disruptions to caregiver psychosocial well-being and pandemic-related strain on the family system (Colucci et al., 2023; Masten et al., 2021; Seddon et al., 2021). Though these factors did not modify post-intervention trajectories (limiting the potential to conclude that these factors were specific mechanisms of change), they were implicated in caregiver-reported child and family-wide well-being more generally across both *studies 1 and 2*. Moreover, *study 3* highlighted differing associations of family income on mental health help-seeking across family roles. That is, when families had more financial resources, children and partners were more likely to continue accessing mental health services (i.e., families used available resources in the service of supporting their mental health). Conversely, primary caregivers (mainly mothers) were predisposed to seeking additional

services when their family had lower income, suggestive of a stress cascade whereby fewer resources exerted greater psychosocial strain, leading to increased help-seeking. These findings echo the family stress model framework which emphasizes the complex mosaic of relational and psychosocial consequences associated with distal stressors external to the family system as they extend into the proximal interpersonal climate within the family home (e.g., between co-parents, from caregiver to child, child to caregiver, and across siblings; Masarik and Conger; 2017).

In addition to risk-promoting factors, positive parenting behaviours, strong caregiver-child relationships, and adaptive coping on the part of the caregiver are strong protective factors that promote a child's acquisition of socioemotional skills and self-regulatory capacity, leading to enhanced physical and mental health across the lifespan (Buka et al., 2024; Cost et al., 2023). Consistent with existing literature, *study 2* demonstrated that increased family-average parenting positivity was associated with a greater reduction in child anger and anxiety symptoms over time, over and above the cascading impact of caregiver psychological distress. The overall goals of EFFT are to empower caregivers to confidently manage child mental health symptoms, while also broadly supporting the caregiver-child relationship. These interactions between positive parenting and children's mental health recovery suggest that the intervention may be associated with change that works "inside out" within the family system. That is, when dyadic parent-child interactions are targeted, the benefits may extend across the entire family unit, as individual symptoms are better managed, parent-child relationships are strengthened, and family-wide stress and relational strain are reduced, creating a calmer and more collaborative ambient family context, through the process of parent-child coregulation (Nelson et al., 2009; Zahl-Olsen et al., 2023). Though these findings cannot inform how families would have fared without any intervention or with treatment as usual, they are consistent with existing EFFT research

demonstrating gains in children's mental health in other samples with brief EFFT workshops; Foroughe et al., 2023; Goveas et al., 2024), and child and caregiver coping (in the same sample; Sloss et al., 2025), further strengthening the existing evidence for this intervention. Moreover, inherent in *study 2* is the consideration of both caregiver mental health and parenting practices, allowing these factors to be both simultaneously considered and discretely accounted for as separate but interrelated aspects of family-wide well-being. In so doing, this work was responsive to future directions proposed by other researchers assessing caregiver-focused intervention programs (Sager et al., 2024). As a primary next step for EFFT research, the first randomized controlled trial (RCT) of longer-term (6-week, caregiver-focused) EFFT is underway by other researchers, with a 12-month follow up period (Seddon et al., 2025). This trial will be able to speak to the efficacy of EFFT and is similarly exploring multilevel, family-wide outcomes, across child, caregiver, and family layers of relational organization.

The results presented studies 1-3 collectively illustrate the multifactorial nature of family-wide well-being and mental healthcare seeking. *Studies 1 and 2* illustrated that well-being is family-specific, unique across different children in the home, and time-varying within children (mental health trajectories) and families (family functioning) across the post-intervention period. Similarly, in *study 3*, role-specific factors were found to be uniquely associated with child, primary caregiver, and partner service use. Collectively, these findings demonstrate that the shared family environment (the family relational ecology collectively shaped by both risk and protective factors), may similarly inform family-wide well-being (i.e., interpersonal relationships, mental health across children in the home, and family-wide mental healthcare seeking), while also exerting differential influence across individuals in the family system, as a result of non-shared environments and individual-specific differences. Altogether, as many other

clinicians, theoreticians, and researchers have poignantly stated, *families are greater than the sum of their parts*, and they are most effectively studied when models are able to concurrently account for the multilevel, hierarchical, and mutually-informing relational structure inherent to the family system (e.g., isolating the well-being of individual children and caregivers, exploring trajectories across more than one child in the family while accounting for non-independence, and understanding the landscape of family functioning as an emergent, and related whole; Boyle et al., 2004; Eichelsheim et al., 2009; Minuchin, 1981). Such a perspective reflects decades of research emphasizing that families are interdependent ecosystems, whereby child and family-wide well-being reflect their own layers of family organization, that also mutually inform one another (Berg-Nilsen et al., 2002; Browne et al., 2015; Cook et al., 2001; Paschall & Mastergeorge, 2016). Indeed, to offer fulsome exploration of well-being (and post-intervention change following brief EFFT), an emergent strength of this dissertation is its embodiment of this comprehensive, family-wide perspective.

Theme #3: The Journey to Recovery is Family-Wide and Multiply Determined

EFFT offers a strong theoretical foundation and practical emphasis where caregivers are involved in the intervention as central “change agents” in the family system, and the parent-child relationship is highlighted as a unique relational vehicle for recovery (LaFrance et al., 2020). This is particularly the case related to mental healthcare seeking, given that children and most youth do not self-refer for services or independently organize their own mental healthcare (Hansen et al., 2021). *Studies 1 and 2* are the first of their kind to identify cubic post-intervention trajectories of recovery following brief EFFT. These works demonstrated a pattern of fluctuating but consistent reduction in the intensity of clinical challenges across family interpersonal relationships and children’s mental health, with a long-term trajectory of improvement over the

course of the year following the program. These positive post-intervention gains are consistent with randomized controlled trials for other emotion-focused caregiver interventions, including Emotion-Focused Skills Training (EFST) and Tuning in to Kids (TIK), which are similarly delivered in a caregiver-focused, virtual, group format (Burkhardt et al., 2024; Severinsen et al., 2026). Considered in concert with the findings from *study 3* (where caregivers of children presenting with greater mental health challenges at baseline were likely to continue seeking post-intervention mental health services, regardless of the level of improvement in their symptoms following the EFFT program), these results illustrate the complexity inherent to treating children's mental conditions, which operate within a complex family ecology, are simultaneously amenable to change over time, putatively responsive to short-term, transdiagnostic interventions (such as brief EFFT), and frequently benefit from ongoing treatment. Indeed, these variable but ultimately consistent trajectories of recovery in family functioning and children's anger, anxiety, and depressive symptoms might be understood through the lens of sustained, synergistic, cascading gains across the family system in response to this caregiver-focused, brief EFFT intervention (Carr et al., 2010; Stolper et al., 2024).

Given the caregiver-focused emphasis of EFFT and the interdependence between child and caregiver mental health, *study 3* was novel in its exploration of characteristics of mental healthcare seeking, and the inclusion of both child- and caregiver-specific models. Within the complex landscape of family well-being and caregiver-interventions for children's mental health, this study clarified role-specific antecedents of continued mental healthcare seeking. In other words, predictors of mental health service utilization were multiply determined and varied between children and caregivers, which is informative for treatment planning that characterizes clients' anticipated need for services, and predisposing factors that typically characterize greater

mental health service utilization in a sample of caregivers seeking brief EFFT. In the current milieu of children's mental healthcare services, juxtaposed with high levels of clinical need, there remain numerous barriers to families' receipt of psychological interventions. Long wait times, the high cost of services, and the experience of feeling that services are unwelcoming or non-inclusive are among the core barriers families face while pursuing mental health supports for their children (Kourgiantakis et al., 2023). Given EFFT's stance of inclusivity for all caregiver and family types (e.g., affirming the value of caregiver participation in treatment regardless of the level of pre-existing relational strain, welcoming involvement for caregivers of adult children, and so on), it would be fruitful for future studies to implement qualitative analysis, to explore if this approach was similarly experienced as welcoming and inclusive for all families. Moreover, in view of the calls for family-wide interventions and policies that expand the reach and impact of caregiver-focused interventions, alongside the ongoing need for accessible and effective children's mental health treatment, it would be especially valuable to understand whether brief EFFT and related caregiver-focused programs are associated with population-wide reductions in long-term morbidity and costs to society across the landscape of children's mental healthcare (Crane et al., 2011; Danseco et al., 2021; Doyle et al., 2022).

In view of the presented findings, several areas emerge as potential targets for future empirical study: (1) Contrasting post-intervention trajectories across different modalities of EFFT (e.g., trajectories of well-being following brief two-day EFFT workshops delivered in individual vs group formats, and/or exploring well-being following brief, two-day EFFT vs a 6-week course of individualized intervention), (2) Exploring the degree to which families implemented EFFT techniques in the post-intervention period, and the inclusion of observational designs to assess the degree of skill acquisition and internalization of treatment principles, (3)

Studies that jointly evaluate process- and behaviour-focused caregiver outcomes, including an analysis of whether change in parenting practices may be moderated by boosts in caregiver self-efficacy, (4) Assessing the relative suitability of brief EFFT across specific populations, with specificity related to child/caregiver age and gender, presenting concern, racial and ethnic background, and other crucial factors, (5) Broadening the systems-wide approach to evaluating post-intervention trajectories across distal layers of community functioning as they relate to child and family well-being (e.g., caregiver social support, children's access to school supports, neighbourhood safety, and other factors that generally inform family-wide well-being), and (6) An exploration of whether there are distinct profiles that characterize families seeking brief EFFT, relative to the general population of families seeking children's mental health services.

Conclusion

The present dissertation offers several novel contributions to the literature on brief EFFT interventions and emotion-focused caregiver programs for children's mental health more generally. This project presents the first evidence depicting trajectories of recovery in association with brief and virtual EFFT across family interpersonal functioning, and domain-specific child mental health symptoms. The research presented herein is also the first of its kind to systematically explore how parenting practices relate to children's recovery trajectories, and to create role specific characterizations of post-EFFT mental healthcare seeking, which at the time of writing, had not been previously evaluated within EFFT, nor emotion-focused caregiver interventions more generally. Altogether, this work offers a rich exploration of family processes related to children's mental health, family interpersonal relationships, and mental healthcare seeking, which operate across an interdependent, multilevel, and hierarchically organized family system.

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Appendices

Atypical Participation Analyses

Amongst participants in the study, a few participants were flagged for atypical participation in the intervention ($n=15$). These included those that did not complete the entire workshop or watched a partial recording at a second date, a second caregiver in the family participating in the workshop several months later (resulting in a new “dose” of treatment mid-way through the initial caregiver’s survey data), and individuals who were no longer in communication with their child and/or dropped out of the study after baseline.

Study 1

When a one-way ANOVA was run with the full sample ($n=159$) to explore if there were mean differences between the “typical” group and those with imperfect participation across relevant study variables (FAD, K10, and parenting stress for the target child), non-significant differences were observed across all variables, with the exception of the parenting stress variable at Time 2 ($F(1, 143) = 8.37, p = .05$) and Time 3 ($F(1, 140) = 7.31, p = .04$), where the atypical group reported slightly lower levels of parenting stress across both time points (Time 2: $M = 2.86, SD = 1.77$ vs $M = 3.98, SD = 1.47$; Time 3: $M = 2.67, SD = 1.21$ vs $M = 3.79, SD = 1.29$). Additionally, there were a handful of participants whose responses were flagged due to failing one or more “attention checks” in the surveys ($n = 15$). When a one-way ANOVA was run to explore if there were mean differences between the “typical” group and those with failed attention checks, non-significant differences were observed across all variables (p ’s $>.05$). All of the above-described cases were retained within the dataset.

Study 2

When a one-way ANOVA was run to explore if there were mean differences between the “typical” group and those with imperfect participation across relevant study variables (including all three child PROMIS scales for child 1 and 2 and positive and negative parenting practices (60 variables), non-significant differences were observed across all variables, with the exception of the following (ANOVA output is also reported below):

The target child (Child 1) of typically participating caregivers reported higher child anger and depression symptoms at Time 3 and depression symptoms at Time 4 vs the atypical participants group, and the target child (Child 1) of typically participating caregivers was receiving less positive and more negative/hostile parenting at Time 1 and Time 4 vs the atypical participants group.

- Child 1's Total PROMIS Anger Symptoms (Time 3) - $F(1, 138) = 6.27, p = .013$
- Child 1's Total PROMIS Depressive Symptoms (Time 3) - $F(1, 139) = 5.14, p = .025$
- Child 1's Total PROMIS Depressive Symptoms (Time 4) - $F(1, 130) = 3.88, p = .051$
- Child 1's Positive Parenting score (Time 1) - $F(1, 147) = 4.23, p = .041$
- Child 1's Positive Parenting score (Time 4) - $F(1, 132) = 3.95, p = .049$
- Child 1's Negative Parenting score (Time 2) - $F(1, 143) = 5.73, p = .018$
- Child 1's Negative Parenting score (Time 3) - $F(1, 140) = 4.25, p = .041$

Secondly, a small group of participants had their responses flagged for failing one or more attention checks ($n=15$). When a one-way ANOVA was run to explore if there were mean differences between the “typical” group and those with attention-compromised, non-significant differences were observed across the child PROMIS symptom scales and parenting practices scales, non-significant differences were observed across all variables. In view of statistical power, all responses were retained within the dataset.

Study 3

Amongst participants in the study, a few participants were flagged for atypical participation in the intervention ($n=12$). These included those that did not complete the entire workshop or watched a partial recording at a second date, a second caregiver in the family participating in the workshop several months later (resulting in a new “dose” of treatment mid-way through the initial caregiver's survey data), and individuals who were no longer in communication with their child and/or dropped out of the study after baseline. When a one-way ANOVA was run to explore if there were mean differences in service use between the “typical” group and those with imperfect participation, the results were non-significant ($ps > .05$).

Similarly, there were a handful of participants whose responses were flagged due to failing one or more “attention checks” in the surveys ($n = 11$). When a one-way ANOVA was run to explore if there were mean differences between the “typical” group and those with failed attention checks, the results were non-significant ($p's > .05$).

Analysis of Characteristics Predicting Study Retention

This study had high participant retention; for specifics related to the number of participants at each wave of data collection, see Table A1. One-way ANOVAs were used to explore whether there were mean differences between participants that completed the questionnaires at Time 5 in the study, compared to those who did not complete the questionnaires at Time 5. Potential differences across both demographic variables and study measures were explored. Not including participants that requested to withdraw from the study, data from all participants was retained, regardless of the number of waves of data collection that were completed. This approach was taken to maximize statistical power and the representativeness of the sample.

No differences were observed between groups based on gender (caregiver or child), child age, the number of children in the home, or family income. Similarly, no differences were observed across the FAD, parenting stress, siblings' PROMIS scores, and positive and negative parenting practices scales (across both target children and their siblings) between groups.

Significant differences were observed across the following variables:

Based on scores from the COVID-19 Family Stressor Scale, caregivers who reported experiencing a lower level of COVID-19 disruption at the pre-intervention study baseline were more likely to remain in the study at Time 5 compared to caregivers from families experiencing a higher level of COVID-19 disruption at the study baseline ($F(1, 116) = 213.75, p = .014$). Additionally, based on K10 scores, caregivers reporting lower levels of psychological distress at the pre-intervention study baseline were more likely to remain in the study at Time 5 compared to caregivers reporting higher levels of psychological distress ($F(1, 113) = 167.44, p = .047$). Finally, based on total symptom scores from the child PROMIS scales (across the anger, anxiety, and depression scales), caregivers reporting lower levels of child mental health symptoms for the target child were more likely to remain in the study at Time 5 compared to caregivers reporting higher levels of child mental health challenges for the target child ($F(1, 111) = 862.17, p = .033$).

These findings suggest that, on average, the presented results may be less representative of families experiencing higher levels of COVID-19 disruption, caregiver psychological distress, and child mental health symptoms, relative to those reporting lower levels of challenge in these areas. Notwithstanding, the use of imputation in study 1 allowed for the inclusion of data from all families who completed at least one timepoint of data collection. This aspect of the results is discussed further under *Strengths and Limitations of the Research Design*.

Sensitivity Analyses for Study 2

Sensitivity Analyses for Gender-Non-conforming Participants

The analyses were run with the exclusion of children ($n=7$) and caregivers ($n=1$) who identified as gender non-conforming and the results were substantively identical. All the previously discussed results were maintained; however, three additional interactions were observed: Family *average positive parenting* (Model 5e; $\beta = -0.02$, $SE = 0.01$, $p < .05$, $\eta^2=0.005$) and *differential negativity* (Model 5f; $\beta = 0.04$, $SE = 0.02$, $p < .05$, $\eta^2=0.005$) both significantly interacted with linear time in the *depression* models such that children in homes with higher average positivity and children who experienced lower negativity relative to other children in the home (respectively) experienced a steeper slope of post-intervention change in their mental health symptoms. Additionally, an interaction between time and *caregiver gender* (but a non-significant baseline effect, $p > .05$) was observed in the *anger* model (Model 9; positive parenting only), such that male caregivers reported a steeper slope of post-intervention change in child symptoms than female caregivers ($\beta = -0.12$, $SE = 0.06$, $p < .05$, $\eta^2=0.005$).

Sensitivity Analyses for Child Age

The analyses were run including children regardless of age (including the previously excluded multivariate outlier) and the results were substantively identical. All the previously discussed results were maintained, with the exception of the following effects: In Model 5b, a significant effect was observed for average negative parenting such that greater negativity in parenting predicted greater baseline anxiety symptoms ($\beta = 0.18$, $SE = 0.08$, $p < .05$, $\eta^2=0.005$). In the depression models (Models 5e and 5f) the previously observed effects for gender were non-significant ($ps > .05$). In Model 7, the previously observed interaction between time and number of children on anger symptoms (positive model) was maintained; however, the p-value was at the threshold of significance ($ps = .053$). In Model 10, a significant interaction between time and parent psychological distress was observed in the anger model for positive parenting such that children of parents with greater mental health symptoms experienced greater symptom reduction over time ($\beta = 0.01$, $SE = 0.003$, $p < .05$, $\eta^2=0.005$).

Sensitivity Analysis for Outliers in Study 3

In the child model: All the effects were maintained from the logistic model when the model was run with winsorized outliers. In the count model, all the effects were maintained except for the effect for income, which changed from significant to non-significant ($B = 0.21$, $CI = -0.01, 0.43$, $SE = 0.11$, $p = 0.051$). However, the original effect was marginally significant and just below the threshold of significance ($p = 0.048$).

In the primary caregiver model: When this model was tested with winsorized outliers, the non-significant effects from the logistic model were maintained. Similarly, the effect of history of mental health services in the count model was also maintained. With winsorized outliers, the previously significant effects for relationship status, income, and COVID-19 disruption were not statistically significant ($ps > .05$) in the count model, but there was a marginally significant effect for caregiver psychological distress, such that lower distress was associated with greater log odds of accessing services (when the sample did not include the families with the highest levels of service access; $B = -0.64$, $SE = 0.32$, $p = 0.048$).

In the partner model: All the effects were maintained when this model was tested with winsorized outliers.

Strengths and Limitations of the Research Design

As noted in the aforementioned limitations sections across chapters 1-3, the absence of a control group in the sample represents a significant threat to the internal validity of the presented findings (Gaskell et al, 2023). However, these results are nonetheless consistent with those of a randomized clinical trial for a similar sister intervention developed in Europe, Emotion-Focused Skills Training (EFST; Severinsen et al., 2026). Additionally, the study design did not include stringent inclusion and exclusion criteria for participation (as in many randomized clinical trial designs), and therefore, does not include a homogenous sample. However, in the same way, a criticism of these more restricted sample designs is that they may not “reflect the diverse clinical populations typical of routine care settings” (Gaskell et al., 2023, p.44). In this way, the broadly inclusive study sample offers ecological validity to the present dissertation.

An analysis of participants who were lost to follow identified that, on average, families experiencing higher baseline COVID-19 disruption, caregiver psychological distress, and child mental health symptoms were more likely to be lost to follow compared to families that completed data collection at 12-months post-intervention. These findings across some (but not all) of the included measures represent a threat to the overall generalizability and representativeness of the study findings. Notwithstanding, demographic differences did not predict study completion. Considered in context, the overall retention rate in the study sample was high for a longitudinal study with a 12-month follow up period, which represents a significant strength of the analyzed dataset. In consideration of what factors may have served to maximize study retention, the lottery-style compensation for completion of study questionnaires, the potential for additional draws for completing surveys for each additional child, alongside the increasing prize value across waves of data collection may have been motivating for families. In addition, the nature of the study and the content of the questionnaires may have bolstered participants’ sense of having a meaningful contribution towards the study of children’s mental health and family processes in this context. In other words, participants may have felt personally invested in the ongoing development of EFFT and understanding of family relationships in relation to brief EFFT, given that they were themselves seeking this intervention.

The data for this dissertation was collected in the context of receding pandemic restrictions. It was beyond the scope of the analysis to account for the role of pandemic-related disruption in association with the chronological timing of study participation. However, including a measure for pandemic-related disruption was prioritized within studies 1 and 3 as one way of accounting for the role of this stressor on the study sample. Similarly, the findings presented herein could also reflect maturation effects and/or regression to the mean such that children and families could have respectively experienced pre- versus post-intervention improvement due to factors related to development and/or attenuation in clinical challenges that would have otherwise occurred. These threats to internal validity were partly mitigated by accounting for child age within the analyses. Additionally, attention was also given to employing

statistical designs that accounted for the non-independence of constructs across the family system, while accounting for between-child/family differences and within-person change over time across the 12-month post-intervention period. Finally, by modelling myriad constructs across multiple layers of family relational organization, the presented analyses offer a nuanced understanding of the interrelationships across the presented constructs, which is a notable methodological strength.

Tables

Table A1

Participant Retention

Number of Participating Caregivers	Time 0	Time 1	Time 2	Time 3	Time 4	Time 5
	Baseline	Immediately post- intervention	1-month follow up	3-month Follow up	6-month follow up	12-month follow up
Study 1	117	112	112	111	101	103
Study 2	105	100	99	98	90	91
Study 3	118	-	-	-	-	91

Note. All studies used the same dataset. The sample for study 1 reflects caregivers representing the target child aged 5-25 years old. For study 2, only families where *all* children were aged 5-25 years were included in the analysis (including both target children and their siblings). For study 3, not all families completed service use measures, so there were fewer data points for this measure relative to other measures.

Table A2

Bivariate Correlations between Study Variables for Study 1

	>1CG	Kids	Gender	FAD-T0	FAD-T1	FAD-T2	FAD-T3	FAD-T4	FAD-T5	K10-T0	K10-T1	K10-T2	K10-T3	K10-T4	K10-T5	PS-T0	PS-T1	PS-T2	PS-T3	PS-T4	PS-T5
COVID	-.05	.06	.03	.34**	.23*	.21*	.24*	.10	.11	.38**	.35**	.37**	.42**	.30**	.33**	.10	.11	-.02	.11	-.07	-.00
>1CG	-	-.13	.19*	.15	.02	.10	.15	.08	.09	-.04	.05	.06	-.12	-.03	-.15	.12	-.05	.01	.00	.18	.16
Kids	-	-	-.22*	-.01	-.03	.02	.02	-.04	-.14	.09	.12	.08	.12	.09	.13	-.04	.00	-.19	-.02	-.08	-.03
Gender	-	-	-	-.01	.10	.02	-.03	-.11	.03	-.02	-.01	.04	-.05	-.07	-.03	.01	.01	-.06	.08	-.01	-.02
FAD-T0	-	-	-	-	.66**	.63**	.58**	.53**	.45**	.35**	.34**	.34**	.20*	.22*	.27**	-.01	.18	-.00	.12	.13	.09
FAD-T1	-	-	-	-	-	.65**	.66**	.63**	.51**	.22*	.24*	.16	.10	.14	.23*	-.10	.18	-.09	.12	.16	.06
FAD-T2	-	-	-	-	-	-	.69**	.59**	.56**	.14	.21*	.31**	.14	.18	.23*	-.08	.13	.13	.18	.17	.09
FAD-T3	-	-	-	-	-	-	-	.52**	.52**	.29**	.29**	.31**	.16	.18	.21*	-.08	.14	-.11	.06	.15	.07
FAD-T4	-	-	-	-	-	-	-	-	.73**	.21*	.16	.27**	.21*	.31**	.24*	-.04	.07	.05	.22*	.27**	.25*
FAD-T5	-	-	-	-	-	-	-	-	-	.12	.11	.21*	.14	.14	.25*	-.03	.07	.02	.08	.16	.23*
K10-T0	-	-	-	-	-	-	-	-	-	-	.84**	.65**	.57**	.57**	.57**	.18	.23*	.08	.24*	.15	.20*
K10-T1	-	-	-	-	-	-	-	-	-	-	-	.70**	.54**	.64**	.60**	.21*	.25**	.08	.21*	.13	.20*
K10-T2	-	-	-	-	-	-	-	-	-	-	-	-	.62**	.58**	.59**	.17	.15	.24*	.20*	.10	.13
K10-T3	-	-	-	-	-	-	-	-	-	-	-	-	-	.67**	.66**	.12	.15	.23*	.42**	.10	.24*
K10-T4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.69**	.17	.10	.17	.38**	.27**	.30**
K10-T5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.14	.12	.09	.31**	.17	.28**
PS-T0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.47**	.40**	.35**	.37**	.31**
PS-T1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.40**	.39**	.35**	.19
PS-T2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.56**	.36**	.24*
PS-T3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.50**	.55**
PS-T4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.66**

Note. >1CG = More than one caregiver participating in the workshop, Kids = Number of children in the home, Gender = Caregiver gender, COVID = Baseline COVID-19 Disruption, FAD = Family Assessment Device, K10 = Caregiver Distress, PS = Parenting Stress for the Target Child

* $p < .05$ ** $p < .01$ or a statistically significant difference

Table A3*Bivariate Correlations between Study Variables for Study 2*

IVs - Predictors	Time 0			Time 1			Time 2		
<i>DVs - Child PROMIS Scales</i>	<i>Ang.</i>	<i>Anx.</i>	<i>Dep.</i>	<i>Ang.</i>	<i>Anx.</i>	<i>Dep.</i>	<i>Ang.</i>	<i>Anx.</i>	<i>Dep.</i>
Target Child (vs Siblings)	.49*	.36*	.47*	.43*	.30*	.41*	.41*	.16*	.33*
Child Age	-.18	.11	.23*	-.20*	.05	.10	-.17*	.07	.18*
Child Gender	.07	-.08	-.07	.06	-.09	-.02	.06	-.15*	-.04
Parent K10	.21*	.30*	.28*	.23*	.28*	.40*	.22*	.25*	.38*
Pos. - Family Average	-.20*	-.11	-.17*	-.18*	-.15*	-.12	-.21*	-.19*	-.19*
Neg. - Family Average	.25*	.09	.03	.35*	.11	.08	.39*	.09	.09
Pos. - Family <i>SD</i>	-.04	-.05	-.08	.06	.03	-.02	.07	.08	.07
Neg. - Family <i>SD</i>	.06	-.10	-.08	.01	-.09	-.08	.00	.10	-.02
Pos. - Child Deviation	-.04	.03	-.03	-.16*	-.01	-.09	-.09	-.14	-.15*
Neg - Child Deviation	.19*	.04	.06	.14	.01	.02	.13	-.02	-.10

IVs - Predictors	Time 3			Time 4			Time 5		
<i>DVs - Child PROMIS Scales</i>	<i>Ang.</i>	<i>Anx.</i>	<i>Dep.</i>	<i>Ang.</i>	<i>Anx.</i>	<i>Dep.</i>	<i>Ang.</i>	<i>Anx.</i>	<i>Dep.</i>
Target Child (vs Siblings)	.34*	.21*	.27*	.40*	.22*	.32*	.22*	.12	.18*
Child Age	-.08	.08	.10	-.00	.10	.10	-.08	.08	.21*
Child Gender	.05	-.11*	-.06	.09	-.10	-.05	.06	-.18*	-.05
Parent K10	.32*	.25*	.28*	.24*	.22*	.22*	.26*	.29*	.32*
Pos. - Family Average	-.27*	-.23*	-.25*	-.26*	-.22*	-.18*	-.38*	-.31*	-.33*
Neg.- Family Average	.34*	.11*	.19*	.30*	.13	.19*	.36*	.07	.07
Pos. - Family <i>SD</i>	.14*	.09	.04	.10	.04	-.02	.09	.13	.12
Neg. - Family <i>SD</i>	.13*	.00	.04	.10	.01	.01	.06	-.02	-.05
Pos. - Child Deviation	-.16*	-.02	-.09	-.23*	-.06	-.12	-.01	-.04	-.06
Neg - Child Deviation	.20*	.06	.05	.18*	.06	.03	.20*	.12	.12

Note. * $p < .05$ or a statistically significant difference. Ang = Anger scale, Anx = Anxiety scale, Dep = Depression scale, Pos. = Positive parenting scale, Neg. = Negative parenting scale.

Table A4*Bivariate Correlations between Study Variables for Study 3 for the Child Model*

	Age	Gender	PROMIS	Hx MH Services	PP	K10	FAD	Income	COVID
Age	-	-	-	-	-	-	-	-	-
Gender	.27**	-	-	-	-	-	-	-	-
PROMIS	.17	-.15	-	-	-	-	-	-	-
Hx of Mental Health Services	.31**	-.18	.26**	-	-	-	-	-	-
PP	.08	.03	-.02	-.04	-	-	-	-	-
K10	.07	.01	.43***	.03	-.30**	-	-	-	-
FAD	.10	.01	.15	-.02	-.44***	.40***	-	-	-
Income	.09	.06	-.04	-.02	.08	-.15	-.12	-	-
COVID	-.19	-.01	.16	-.11	-.22*	.38***	.33***	-.35***	-
Number of Mental Health Sessions	.27*	-.16	.30**	.09	.11	.13	.07	.34**	-.10

Note. PROMIS = Child Mental Health, Hx = History, MH = Mental Health, COVID = COVID-19 Disruption, K10 = Caregiver Psychological Distress, FAD = Family Assessment Device, Number of Mental Health Sessions = Number of post-intervention mental health sessions received. * $p < .05$, ** $p < .01$, *** $p < .001$ or a statistically significant difference.

Table A5*Bivariate Correlations between Study Variables for Study 3 for the Primary Caregiver Model*

	Gender	Ethnicity	PROMIS	Hx MH Services	PP	K10	Income	FAD	Relationship Status	COVID
Gender	-	-	-	-	-	-	-	-	-	-
Ethnicity	-.05	-	-	-	-	-	-	-	-	-
PROMIS	.06	.09	-	-	-	-	-	-	-	-
Hx of Mental Health Services	.06	-.06	.24*	-	-	-	-	-	-	-
PP	-.17	-.01	-.02	-.02	-	-	-	-	-	-
K10	-.03	.11	.43***	.17	-.30**	-	-	-	-	-
Income	.08	.18	-.04	-.11	.08	-.15	-	-	-	-
Relationship Status	.09	.01	.02	-.13	-.14	.04	.13	-	-	-
FAD	-.02	.21*	.15	.12	-.44***	.40***	-.12	-.06	-	-
COVID	.03	.05	.16	.09	-.22*	.38***	-.35***	.01	.33***	-
Number of Mental Health Sessions	.07	.15	.18	.24*	-.03	.19	.20	-.11	.02	.09

Note. Hx = History, MH = Mental Health, Previous MH Services = for the primary caregiver, COVID = COVID-19 Disruption, K10 = Caregiver Psychological Distress, FAD = Family Assessment Device, Number of Mental Health Sessions = Number of post-intervention mental health sessions received. * $p < .05$, ** $p < .01$, *** $p < .001$ or a statistically significant difference.

Table A6*Bivariate Correlations between Study Variables in Study 3 for the Partner Model*

	Gender	PROMIS	Hx Parent MH Services	Partner K10	Income	FAD	COVID	Partner Attended
Gender	-	-	-	-	-	-	-	-
PROMIS	-.11	-	-	-	-	-	-	-
Hx of Parent MH Services	.04	-.24*	-	-	-	-	-	-
Parent K10	.01	.43***	-.17	-	-	-	-	-
Income	-.10	-.04	.11	-.15	-	-	-	-
FAD	.06	.15	-.12	.40***	-.12	-	-	-
COVID	-.04	.16	-.09	.38***	-.35***	.33***	-	-
Partner Attended Workshop	-.15	.08	.07	-.06	.06	.13	-.05	-
Number of Mental Health Sessions	-.45***	.03	-.15	.03	.27*	-.20	.08	.11

Note. Hx Partner MH Services = Whether the individual's partner (the primary caregiver who initially enrolled in the study) had previously received mental health services, MH = Mental Health, K10 = Caregiver Psychological Distress, FAD = Family Assessment Device, COVID = COVID-19 Disruption, Number of Mental Health Sessions = Number of post-intervention mental health sessions received. * $p < .05$, ** $p < .01$, *** $p < .001$ or a statistically significant difference.

Figures

Figure A1

Interactions between Time and Family Average Positive Parenting on Child Anger Symptoms Over Time from Model 5c

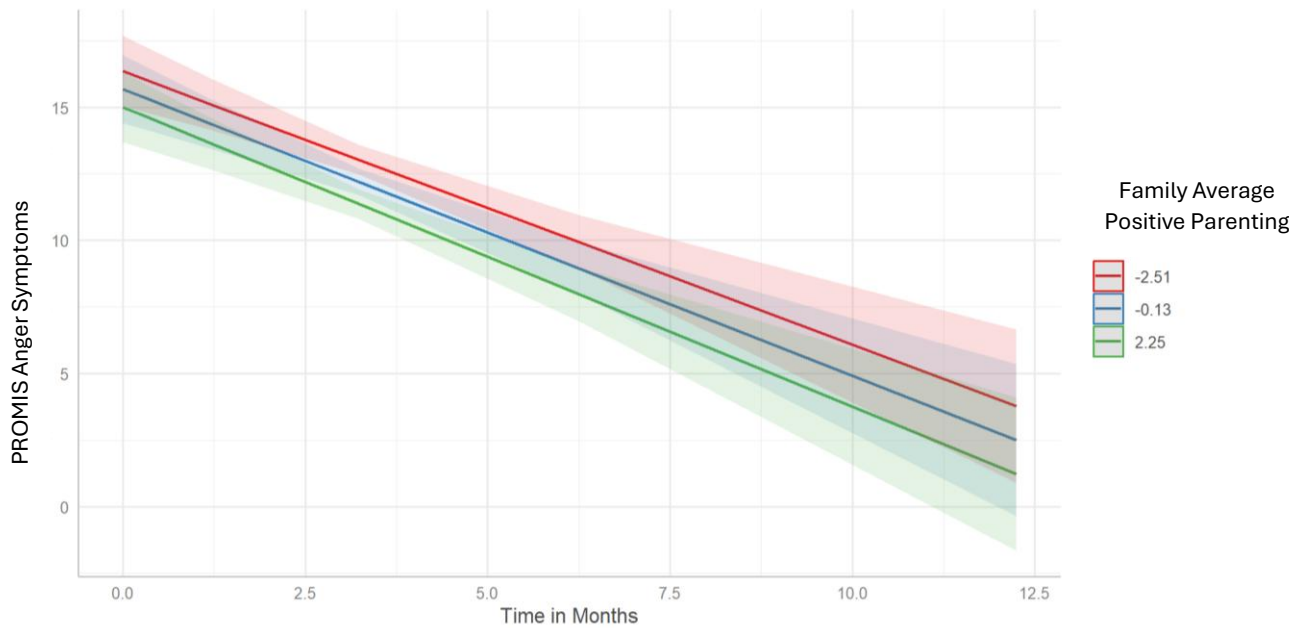


Figure A2

Interactions between Time and Family Average Positive Parenting on Child Anxiety Symptoms Over Time from Model 5a

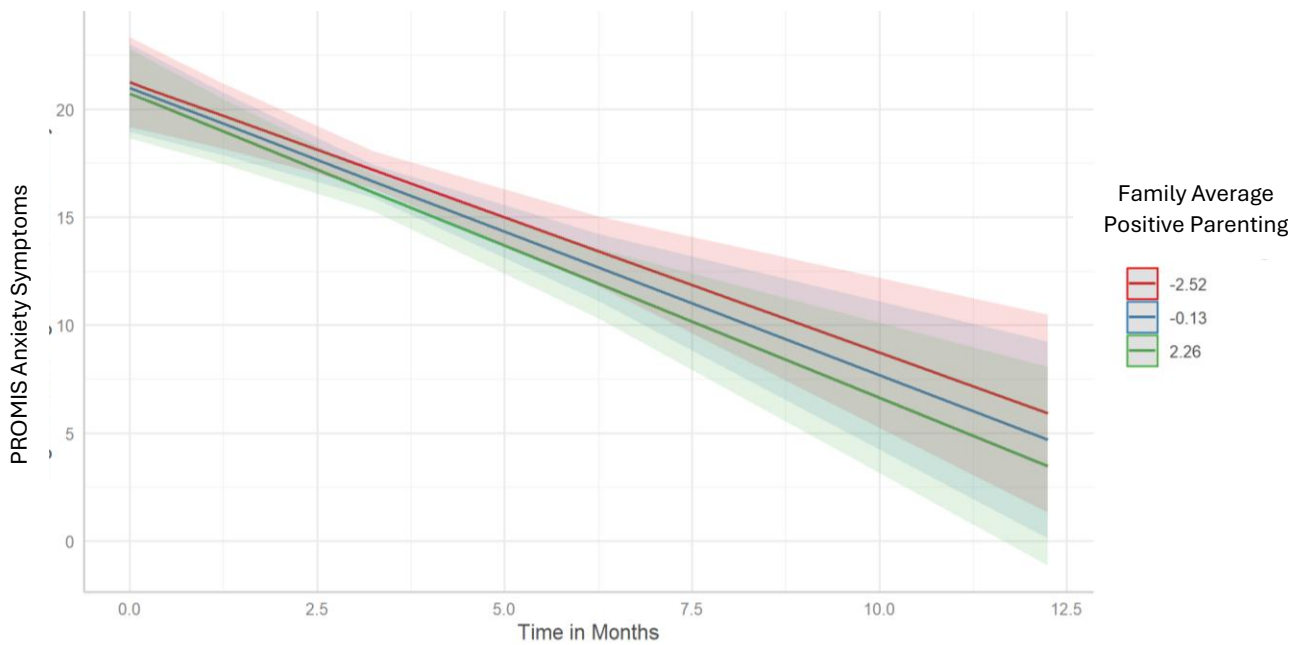


Figure A3

Interaction between Time and Number of Children in the Home on Child Depressive Symptoms Over Time

Figure A3.1 – Positive Parenting Model

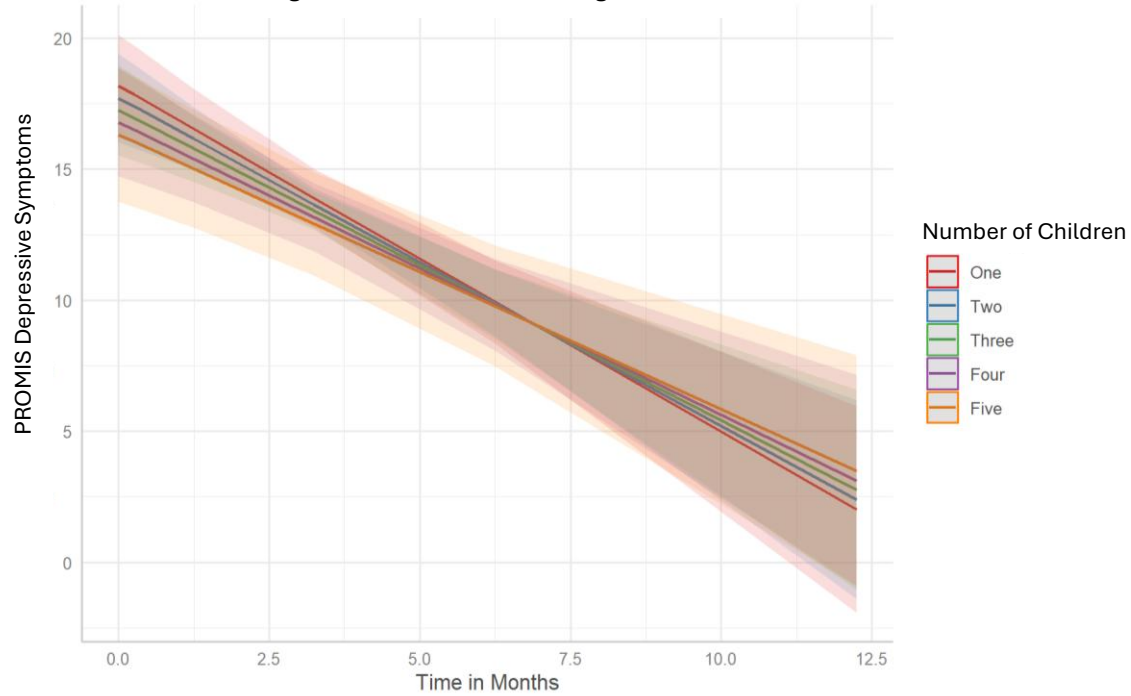


Figure A3.2 – Negative Parenting Model

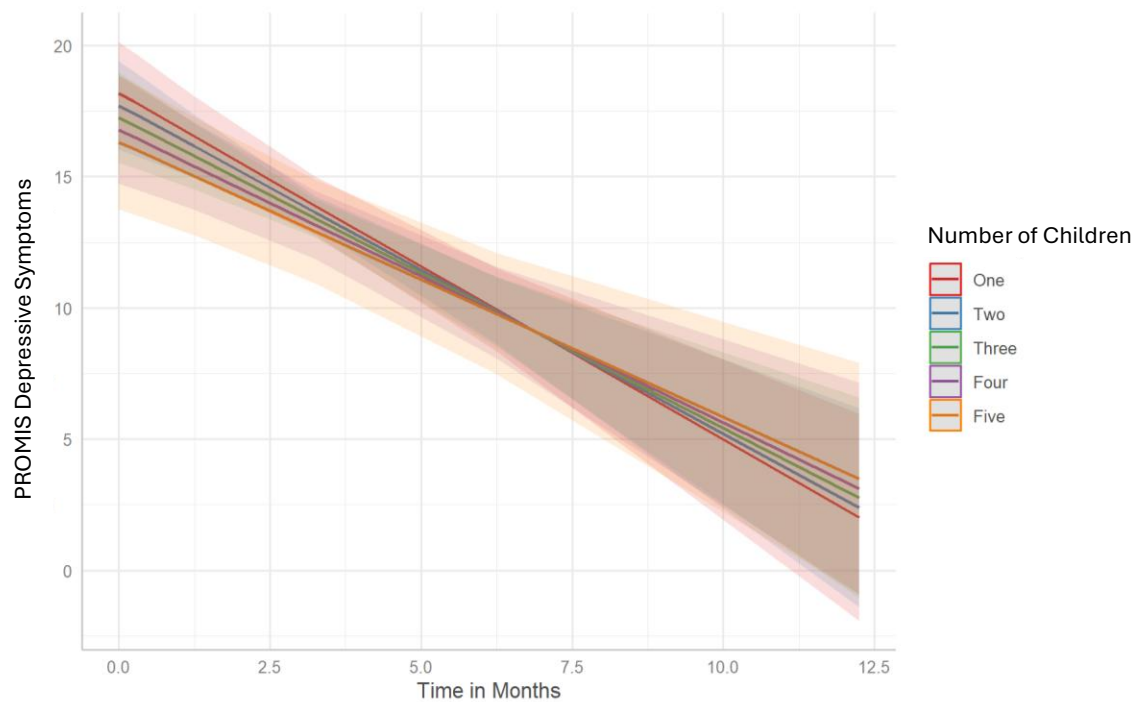


Figure A4

Interaction between Time and Number of Children in the Home on Child Anger Symptoms Over Time

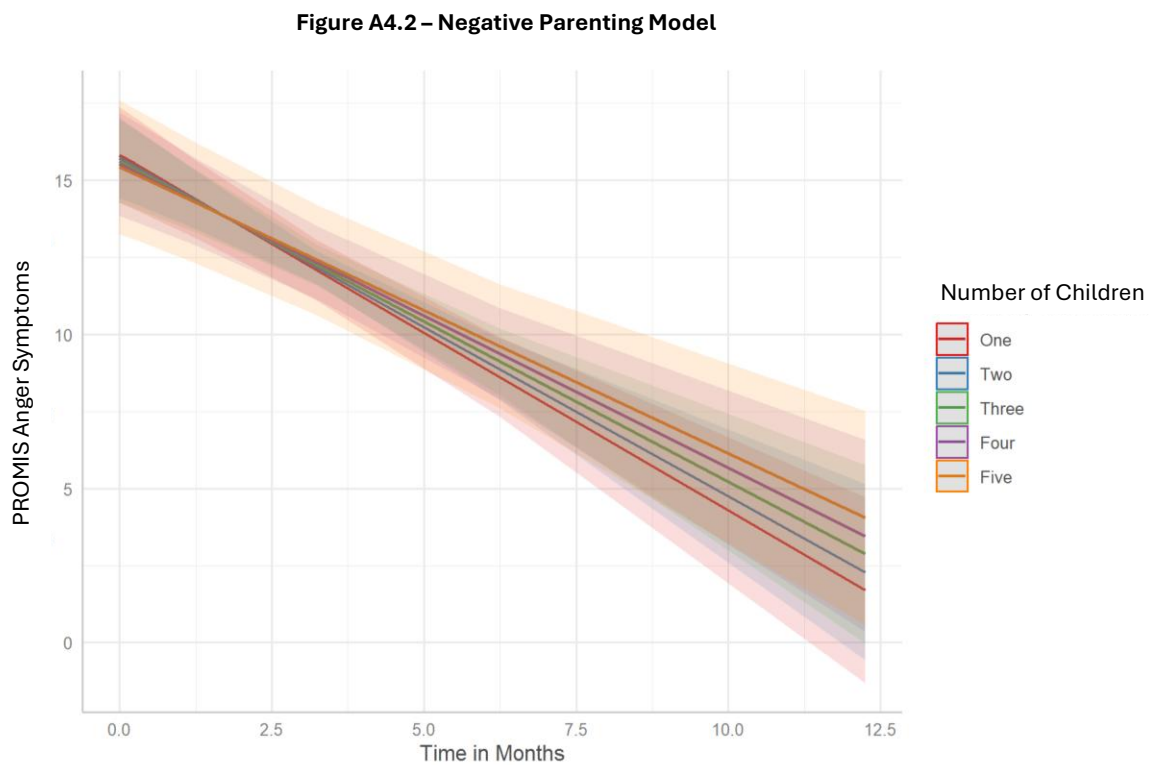
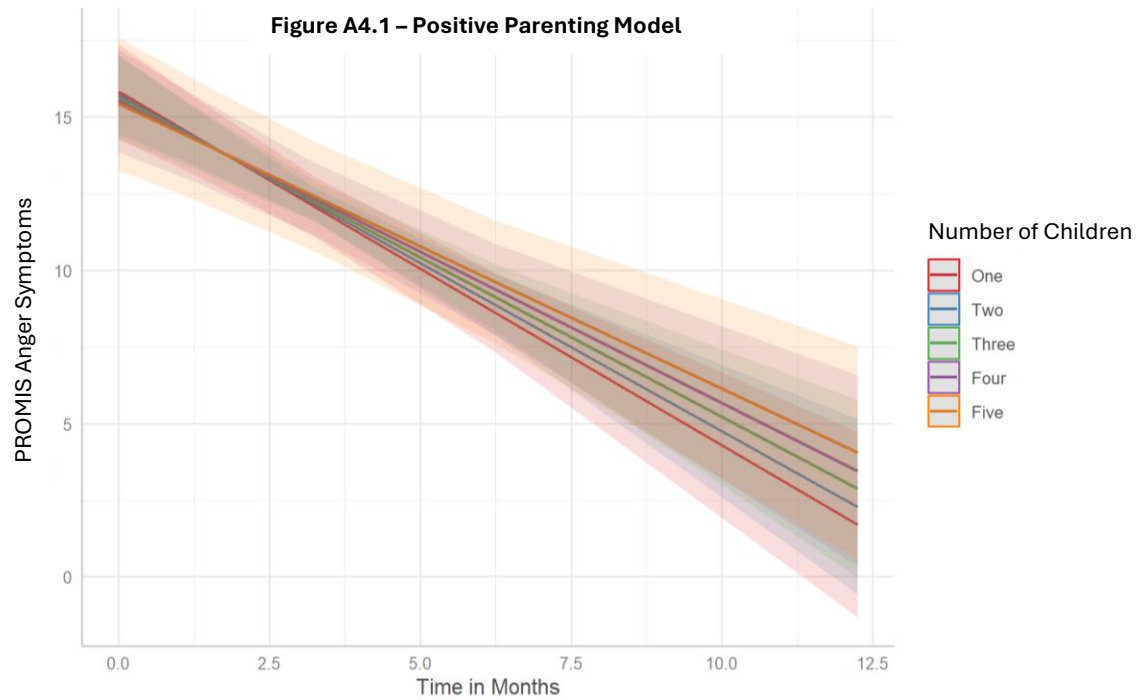


Figure A5

Interaction between Time and Number of Children in the Home on Child Anxiety Symptoms Over Time

Figure A5.1 – Positive Parenting Model

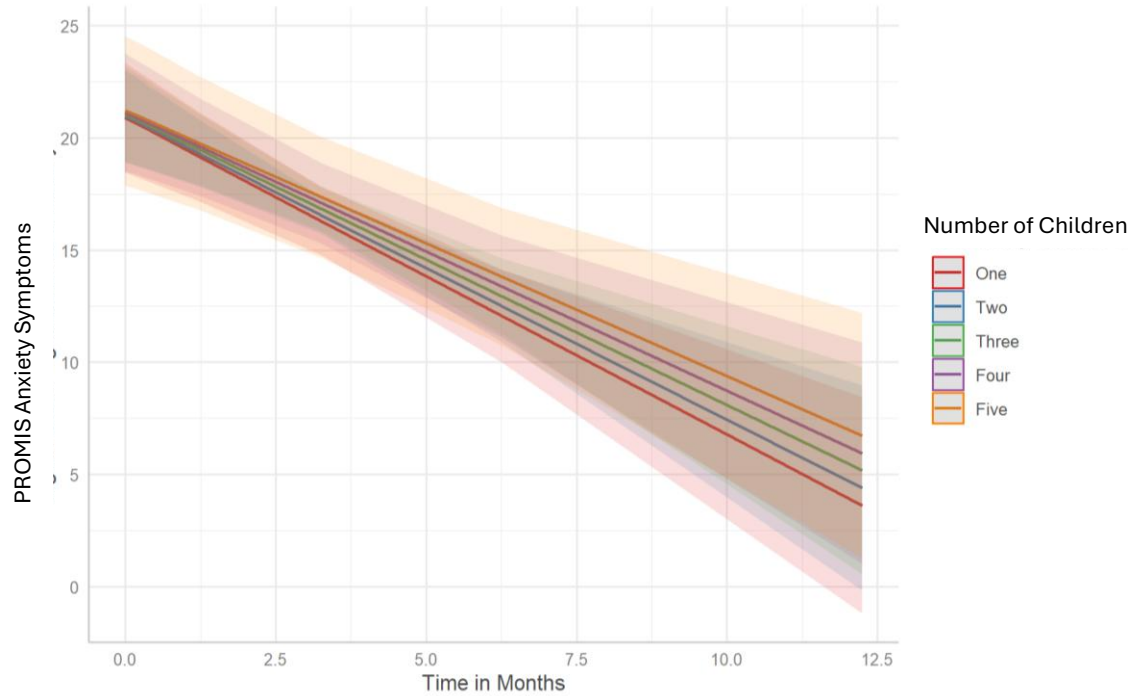


Figure A5.2 – Negative Parenting Model

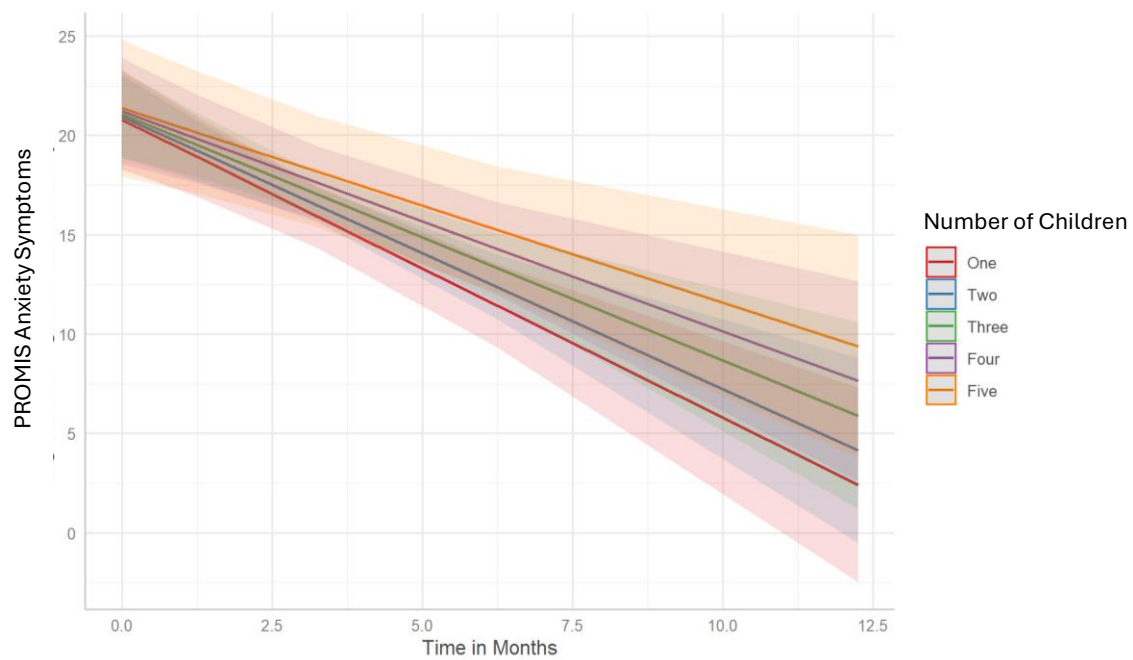
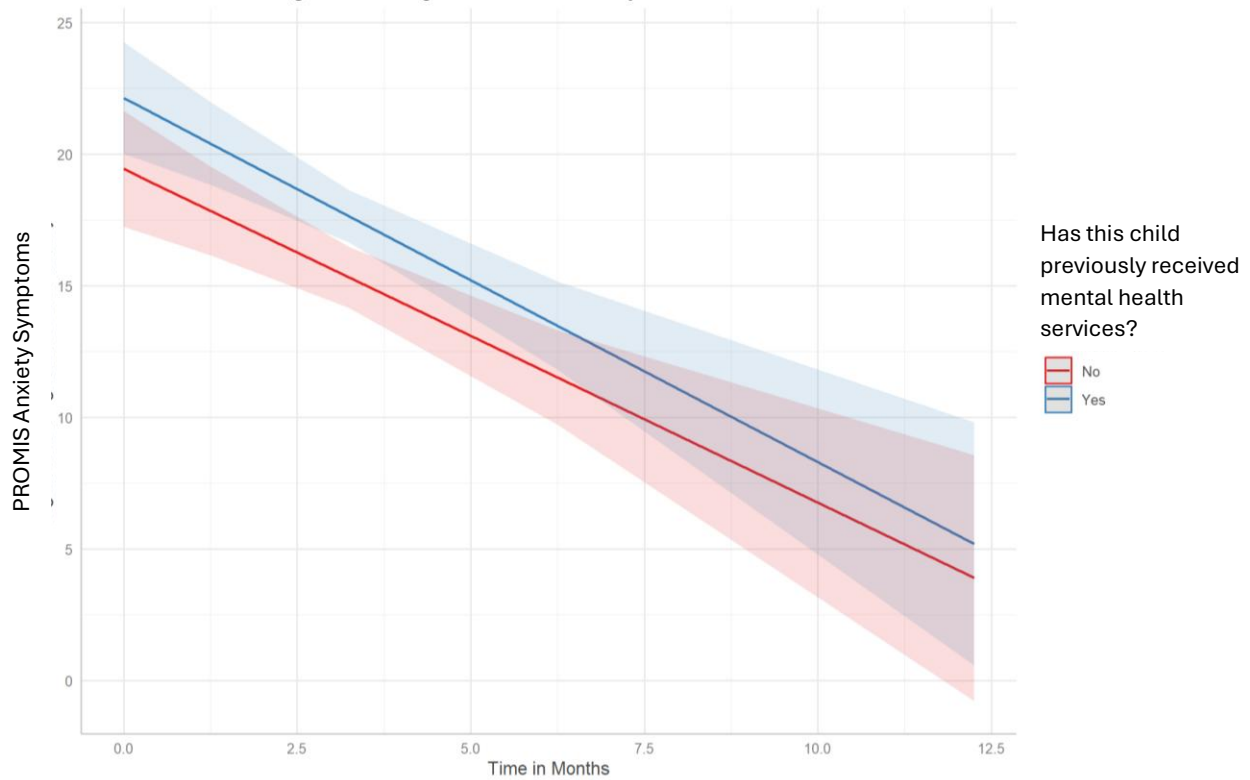


Figure A6

Interaction between Time and Previous Child Mental Health Treatment on Child Anxiety Symptoms Over Time



Note: This interaction was only significant for the anxiety model with *positive parenting* predictors included. The effect was not replicated across the anxiety model with *negative parenting* predictors.