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Impact of Stepping Stones Triple P on Parent Efficacy and Service Needs for Families of Children with Autism

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Why did we do this study?

Children with autism often exhibit challenging and disruptive behaviours. These behaviours place high demands on their parents and families. Parents of children with autism are turning to professionals for assistance with their child's disruptive behaviours. To build parental adaptive resources and strengthen families of children with autism, many professionals are providing a multilevel system of behavioural family intervention known as Stepping Stones Triple P (SSTP). SSTP is designed specifically for parents of children with disabilities. Preliminary trials involving parents of children with Down Syndrome, Cerebral Palsy, Fragile X Syndrome and general developmental delay have shown promising results. Research investigating the impact of Stepping Stones for parents of children with autism is now warranted, and is necessary to establish a firm evidence-base.

Who participated?

- 10 families raising a 5 to 12 year old child diagnosed with autism
- 3 SSTP accredited practitioners

What did we do?

- The Standard SSTP (level 4) individual, 10-session format was used. The majority of SSTP intervention took place in the families' homes at a time convenient for the family.
- Pre-intervention, post-intervention and follow-up interviews were conducted with each participant. Each practitioner was interviewed once following their involvement in the study.
- Pre-intervention (baseline), post-intervention and follow-up measures were obtained, including well-validated measures of child behaviour, parenting practices, parental self-efficacy, and parent stress, anxiety and depression.

What did we find?

Three key themes emerged from the parent interviews, which all related to how parents perceived and dealt with their child with autism's challenging behaviours. These themes were (1) Attribution of cause, (2) Who's the boss? and, (3) Rewarding is rewarding! Practitioner interviews also revealed important information on the usability of SSTP with families of children with autism. Participation in SSTP consistently resulted in improved parental self-efficacy, but little change was observed in parental psychological well-being or perceived service need.

What did we learn? What does this mean?

This study provides preliminary evidence for the use of SSTP with parents of children with autism to improve parental self-efficacy related to dealing with disruptive behaviours. Participation in SSTP did not broadly affect parental adjustment and well-being due to numerous other factors and complexities in their daily lives. Further, participation in SSTP did not generally decrease parents' desire for having professional services overall, although it did decrease the intensity of behavioural and adjunct services that some parents desired, at least immediately following participation in SSTP.

Executive Summary

The Problem. Children with autism often exhibit challenging and disruptive behaviours. These behaviours place high demands on their parents and families. Many parents perceive that their adaptive resources, including but not limited to their energy, knowledge and skills, are insufficient to meet these demands (Dunlap & Fox, 1997). To offset demands and increase their resources, parents of children with autism are turning to professionals for assistance with their child's disruptive behaviours. Parent demand for professional services in Alberta is high. Professional services have historically been delivered to the child, focused on child behaviour (e.g., Lovaas et al., 1974). Little emphasis has been placed on building parental adaptive resources, including their knowledge, skills and confidence, and in turn, their self-efficacy in dealing with their child's problem behaviours (Brookman-Frazer, Stahmer, Baker-Ericzen & Tsai, 2006).

To build parental adaptive resources and strengthen families of children with autism, many professionals and jurisdictions are using a multilevel system of behavioural family intervention known as Stepping Stones Triple P (SSTP). SSTP is a variant on the Triple P - Positive Parenting Program, which was designed for parents of children who have or who are at risk of developing behaviour problems. It incorporates the parent training strategies of Triple P, with additional parenting and behaviour strategies from the disability literature. However, research investigating the impact of Stepping Stones for children with autism is limited.

Study Aim. The purpose of this study was to investigate the experience and perceived outcomes of SSTP for parents of children with autism. Our primary 'hypothesis' was that the experience of applying the knowledge and skills acquired through SSTP would result in fundamental changes in the meanings parents ascribe to their child's behaviours and to their own experience as parents and caregivers.

Method. An in-depth, prospective, mixed-methods, multiple case-study design was used. Ten families were enrolled in the study, with data collected over approximately 18 months during 2011 and 2012. Six of those families completed the program. Three professionals (practitioners) conducted the intervention. They were all Triple P International, SSTP accredited and had extensive experience working with families of children with autism. The Standard SSTP (level 4) individual, 10-session format was employed (Sanders et al., 2004). Most SSTP intervention took place in the families' homes at a time convenient for the family. Each session was conducted following the SSTP manual, and lasted approximately 1 hour.

Outcome Measures. Parental psychological well-being was measured using the 42 item Depression-Anxiety-Stress Scales (Lovibond & Lovibond, 1995). Parental self-efficacy was measured using an adapted version of the 5 item Parent Self-Efficacy Questionnaire (Hastings & Symes, 2002).

Perceived service needs were measured by a supports and services questionnaire developed for this study.

Narrative Interviews. An independent research assistant conducted in-depth, semi-structured interviews with all participants. Each parent interview lasted 30-90 minutes, averaging approximately 1 hour. The purpose of these interviews was to elicit participants' stories about their child with autism and their family life, including their adaptive resources and demands; their expectations and experience of SSTP, including implementation of new knowledge and skills; and, their perceived support and service needs. Baseline interviews were conducted with all 10 families, post-intervention interviews were conducted with the 6 families who completed the program, and 3-month follow-up interviews were conducted with 4 of the 6 families who completed the program. Interviews with professionals who implemented SSTP were conducted post-intervention only.

Analysis. Quantitative and qualitative findings were integrated to come up with a formative understanding of the effects of participation in SSTP for parents of children with autism. Descriptive statistics were calculated for quantitative data. Interview data was analyzed using thematic analysis (Thomas & Harden, 2008).

Results. Three key themes emerged from the parent interviews, which all related to how parents perceived and dealt with their child with autism's challenging behaviours

1. Changes in the "attribution of cause" of misbehavior
2. "Who's the boss?" reflecting a change to parents feeling more in charge of their child's behavior, daily routines and choices, and
3. "Rewarding is rewarding!" reflecting appreciation of a positive approach to behavior management.

Practitioner interviews also revealed important information on the usability of SSTP with families of children with autism. Five common themes emerged from the practitioner interviews:

1. **Appropriate participants:** Practitioners suggest that families be motivated, stable, and should not be involved in too many other services to allow adequate time.
2. **Timing:** Practitioners felt that the recommended weekly sessions were not reasonable for families raising a child with a disability.

3. **Qualifications:** Practitioners felt that training in counseling skills would be an asset.
4. **Session preferences:** Practitioners reported that families often wanted to drop out after session 4 because they felt that they had gained the knowledge they wanted and often did not want to be observed.
5. **Structure of program:** Practitioners liked the structure of the program and found it user-friendly.

Discussion. This is the first independent evaluation of Standard SSTP with families of children with autism of which we are aware. Additionally, this study was conducted in the context of families' daily lives, and thus provides important information on the feasibility and effectiveness, beyond efficacy, of SSTP for families of children with autism. Our main hypothesis was supported. Overall, participation in SSTP did result in fundamental, positive changes in the meanings parents ascribed to their child's behaviours and to their own experience as parents and caregivers.

Two of our non-psychologist practitioners acknowledged the potential for SSTP to identify topics and issues outside of their scope of practice or comfort zone. This finding highlights the need to closely screen and monitor additional skills and knowledge of potential practitioners during the accreditation process, especially given the potential complexities and stressors associated with having a child with autism.

Practitioners suggest that the families who benefit most from participation in SSTP are the families who want validation of existing knowledge and skills. Importantly, service providers and funders should not use SSTP as a replacement for other developmentally appropriate services. Professionals and funders also need to make sure that desire for services is not interpreted as dependency on services. Parents intuitively want to do whatever they can to help their children develop, and often do so at the expense of their own well-being (Hodgetts, McConnell, Nicholas & Zwaigenbaum, in preparation). Further, parents desire for services is perhaps especially understandable for families of children with autism for which the cause and optimal treatments are not yet known. The burden to find ways to make these potentially beneficial programs fit within the complex lives of families of children with autism is up to professionals and service providers, not families.

Limitations and directions for future research. The major limitation of this study is the small sample size. However, the rigor with which the study was conducted, and the consistency of themes and depth of qualitative data gave us confidence in the findings regardless of the small sample size, especially related to the positive benefits that participation in SSTP had on improving parental self-efficacy. Future research should determine optimal ways of providing SSTP to parents of children

with autism in the context of existing supports and services. Put differently, we need to figure out how to provide services to families in ways that do not further increase their care demands.

Conclusions. This study provides preliminary evidence for the use of SSTP with parents of children with autism to improve parental self-efficacy related to dealing with disruptive behaviours.

Participation in SSTP did not broadly affect parental adjustment and well-being due to numerous other factors and complexities in their daily lives. Further, participation in SSTP did not generally decrease parents' desire for having professional services overall, although it did decrease the intensity of behavioural and adjunct services that some parents desired, at least immediately following participation in SSTP.

1. Introduction

Autism spectrum disorders (hereafter referred to as ‘autism’) represents a heterogeneous group of disorders characterized by impairments in communication and social interaction, and the presence of restricted and repetitive behaviours (APA, 2000). Additionally, children with autism exhibit challenging and disruptive behaviours at higher rates than their typically developing peers or peers with intellectual disability (Brereton, Tonge & Einfeld, 2006). These challenging and disruptive behaviours place high demands on their parents and families, and many parents perceive that their adaptive resources, including but not limited to their energy, knowledge and skills, are insufficient to meet these demands (Dunlop & Fox, 1999; Stein, Foran & Cermak, 2011). This can contribute to high levels of stress, anxiety and depression, which are prevalent among parents of children with autism (Lecavalier, Leone & Wiltz, 2006). Stressed parents are, in turn, more likely to respond to their children in ways that exacerbate or reinforce problem behaviours (Hastings, 2002).

To offset demands and increase their resources, parents of children with autism are turning to professionals for assistance with their child’s disruptive behaviours. Professional services in autism have historically been delivered to the child, focused on child behaviour (e.g., Applied Behaviour Analysis; Lovaas, Koegel, Simmons & Long, 1973). Although these programs can be effective at decreasing disruptive behaviours in children with autism, they are costly in terms of time and money, and are not feasible or sustainable for many families or funders. Additionally, although parents may have been involved as co-therapists in these treatment programs at times, the emphasis was not directly on building parental adaptive resources. In fact, little emphasis in autism intervention has been placed on building parental knowledge, skills and confidence, and in turn, their self-efficacy in dealing with their child’s problem behaviours (Brookman-Frazee, Stahmer, Baker-Ericzen & Tsai, 2006). Building parental self-efficacy is important since it is related to improved parental well-being, decreased parental stress, and increased parental involvement in intervention programs overall (Coleman & Karraker, 1997; Hastings & Symes, 2002; Solish & Perry, 2008).

Families of children with disabilities and disruptive behaviours, including autism, require more external assistance than families of children with disabilities without disruptive behaviours (Quine & Pahl, 1985), although, paradoxically, disruptive behaviours can also limit the availability of professional services (Hodgetts, Nicholas & Zwaigenbaum, in press). With current prevalence estimates of 1 in 88 children, representing a 600% increase in the prevalence of autism over the past 20 years (Centre for Disease Control, 2012), the need and demand for supports and services for

children with autism and their families is significant, and funders and professionals are looking for effective, sustainable, cost-effective ways of supporting increasing numbers of children with autism and their families.

To build parental adaptive resources and strengthen families of children with autism, many professionals and jurisdictions are using a multilevel system of behavioural family intervention known as Stepping Stones Triple P (SSTP). SSTP is a variant on the Triple P - Positive Parenting Program, which was designed for parents of children who have or who are at risk of developing behaviour problems. There is substantial evidence that Triple P strategies 'work', resulting in decreases in children's disruptive behaviour and increased positive parenting practices in a variety of populations of children without disabilities (Sanders, 1999). SSTP incorporates the behaviour modification strategies of Triple P, and additional strategies from the disability literature. Readers are directed to Sanders and colleagues (2004) for a detailed description of the development and specific components of SSTP.

Participation in SSTP has led to reduced disruptive behaviours in children with Down Syndrome, Cerebral Palsy, Fragile X Syndrome and general developmental delay (Roberts, Mazzucchelli, Studman & Sanders, 2006; Sanders, 1999), and more recently in children with autism when conducted in a partial group format with the addition of other evidence-based strategies including Comic Strip Conversations and Social Stories (Whittingham, Sofronoff, Sheffield & Sanders, 2009a). Additionally, SSTP conducted in this format resulted in reductions in dysfunctional parenting styles for some families (Whittingham et al., 2009a), and potentially had an effect (at a relaxed alpha level) on parental attributions about their child's misbehaviour (Whittingham et al., 2009b). In other words, after participation in the modified group format of SSTP parents, parents were more likely to attribute misbehaviour to environmental or situational factors, and not something internal to the child. This finding and the need for future research in this area is significant because parents of children with autism, as a group, differ from parents of children with other disabilities: they more often attribute disruptive behaviour to their child's diagnosis rather than typical childhood behavioural problems (Dunn, Burbine, Bowers & Tantleff-Dunn, 2001; Howlin & Rutter, 1987). Therefore, they often report that standard parenting programs will not work for their child and family because the behaviours are internal to the child, and are not under their control (Whittingham, Sofronoff & Sheffield, 2006).

Sofronoff and colleagues (2011) used a randomized, controlled trial (n=53; 45% parents of children with autism) to investigate the effects of an adapted, 2 sessions, group-seminar SSTP format. They concluded that this format of SSTP was effective in changing parents' perceptions of child behaviour problems (i.e., parents reported fewer behaviour problems even though there was no objective decrease in the frequency of problem behaviours), and in decreasing dysfunctional parenting styles and parental conflicts over child-rearing. Although they did not find a significant increase in parental efficacy post-intervention, it was significantly increased at a 3-month follow-up, which the authors attributed to a sleeper effect once they gained confidence through practice. This study provides preliminary evidence for a more time- and cost-effective method of behavioural family intervention, which could have important implications for service delivery due to the increasing prevalence of autism and corresponding rising costs of treatment.

Although the work to date on SSTP provides some evidence for the use of this program with families of children with autism, to our knowledge no independent studies (i.e., that do not include the originators of Triple P) on the efficacy or effectiveness of this program with families of children with autism have been published. Furthermore, the rigorous RCT that was conducted with families of children with autism used an adapted format and included other empirically-supported treatments, which limits generalizability to the standard SSTP. Finally, although efficacy-studies are important in determining whether or not an intervention can result in statistically and clinically significant changes, it does not provide information on the feasibility or generalizability of the intervention in the context of families' everyday lives. This is significant because parents, especially mothers, of children with autism have higher caregiving demands than mothers of children without disabilities, for example related to their child's personal care and transportation (Sawyer et al., 2010), and potentially time-consuming roles atypical of normal parenting, such as advocate, "therapist", and service coordinator (McCann, Bull & Winzenberg, 2012). Thus, finding the time to participate in intensive behavioural family interventions may be difficult for families of children with autism.

The purpose of this study was to investigate the experience and perceived outcomes of SSTP for parents of children with autism. Our primary 'hypothesis' was that the experience of applying the knowledge and skills acquired through SSTP would result in fundamental changes in the meanings parent's ascribe to their child's behaviours and to their own experience as parents and caregivers. Put differently, we expected that parents would break 'habits of mind' (e.g., "there is nothing I can do...") that produce or reinforce low self-efficacy, maladaptive parenting practices, and unsustainable levels of dependency on professionals and services.

Specifically, we hypothesized that SSTP would contribute to:

- 1) Improved parental self-efficacy in dealing with disruptive behaviour in their child with autism;
- 2) A decrease in the negative impact that a child's disruptive behaviour has on his or her parents' psychological well-being; and,
- 3) Decreased perceived need or desire for external supports in dealing with problem behaviours.

2. Methods

2.1. Design, Recruitment and Participants

Ethical approval was obtained through the Health Research Ethics Board at the affiliated university. An in-depth, prospective, mixed-methods, multiple case-study design was used. Potential participants, purposefully sampled for diversity in culture and educational backgrounds, and children with autism of different ages, were recruited through two local service providers who served families with children with autism. The SSTP practitioner at these service providers asked families who had already decided to participate in SSTP if they also wanted to participate in a research study about SSTP. If the parent indicated interest and provided consent, the SSTP practitioner gave the family's contact information to an independent research assistant (not employed by either service provider) who contacted each family to provide more detail about the study. Ten families were enrolled in the study, with data collected over approximately 18 months during 2011 and 2012. Six of those families completed the program. Participant inclusion criteria was (1) at least one parent who could speak and read English well enough to reliably complete the questionnaires and participate in narrative interviews, and (2) a 5 to 12 year old child diagnosed with autism, confirmed with the ADOS (obtained through clinical records). Participant information is provided in Table 1.

There were three professionals (practitioners) who conducted the intervention. They were all Triple P International, SSTP accredited. All professionals had extensive experience working with families of children with autism. Practitioner 1 (families 1-3, 7-10) was an educational consultant, practitioner 2 (family 4) was a behaviour consultant, and practitioner 3 (families 5, 6) was a registered clinical psychologist.

Table 1. Participant and Program Information

Families Who Completed the Program							
ID	Participants (pseudonym)	Child Sex	Child Age	Cultural Background	# Sessions Completed	Other Co-Occurring Services	Other Relevant Info
1	Mother (Mary) Father (Ryan)	M	9	Southeast Asian	10	None - waitlist for multidisciplinary services	ESL
2	Mother (Aisha) Father (Saad)	M	10	Middle Eastern	10	None - waitlist for multidisciplinary services	ESL. Father translated for mother throughout program.
3	Single mother (Susan)	F	12	Western European	10	Regular multidisciplinary services at home.	Mother requested 3 weeks practice between sessions
4	Mother (Karen) Father (Craig)	F	6	Western European	10	None	Child anxiety. Home schooled. Father did not complete measures
5	Mother (Marjorie)	M	5	Southeast Asian	9	Regular multidisciplinary services at home.	ESL. Practitioner unavailable for last session.
6	Mother (Laura) Father (Trevor)	M	5	Western European	9	Regular multidisciplinary services at home.	Practitioner unavailable for last session.
Families Who Did Not Complete the Program							
ID	Participants	Child Sex	Child Age	Cultural Background	# Sessions Completed	Other Co-Occurring Services	Reason(s) Discontinued
7	Mother	M	8	Western European	2	Regular multidisciplinary services at home. Mother referred to clinical psychology.	Maternal mental health issues (anxiety).
8	Mother	M	9	Western European	4	Multidisciplinary services were discontinued shortly after starting Triple P.	Mother overwhelmed with discontinuation of services and “fight” to resume those services.
9	Mother, Father	M	10	Western European	2	Regular multidisciplinary consultation at home.	Intrusive marital discord.
10	Mother	M	8	Middle Eastern	5	All services put on hold due to crisis situation in family. Mother referred to clinical psychology.	ESL. Marital issues, poverty, maternal mental health issues (depression).

2.2. Intervention

The Standard SSTP (level 4) individual, 10-session format was used (see Table 2 for details on each session). Standard SSTP is targeted to parents whose child with disabilities has multiple and/or more severe behaviour problems (Sanders et al., 2004). Although the program is structured, support plans are individualized to fit each family's unique goals and circumstances. The aims of SSTP for parents of children with disabilities are to: (1) increase parental competence in managing disruptive behaviour, (2) decrease negative parenting practices, (3) improve parental well-being through improved coping and decreased stress, (4) improve parents' relationship around parenting issues and roles, and (5) improve problem solving skills in parents (Sanders et al., 2004).

Table 2. Standard Stepping Stones session structure

Session	Topic	Primary Content
1	Introduction and intake interview	Discussion of presenting problem and associated problems Developmental, social and family history Parents are taught how to monitor their child's behavior
2	Observation and feedback	Observation of parent-child interaction Review assessment results
3	Promoting children's development	Parenting strategies that focus on developing positive relationship and encouraging desirable behavior are taught
4	Managing misbehavior	Parenting strategies related to managing misbehavior and developing parenting routines are taught
5	Practice session	Parents are able to set goals and practice specific parenting strategies with feedback from SSTP practitioner
6	Practice session	Same as session 5
7	Practice session	Same as session 5
8	Planned activities training	The ability to plan for high-risk situations is taught and practiced with feedback
9	Planned activities training	Same as session 8
10	Closure	Maintenance of change and family survival tips discussed

All SSTP intervention took place in the families' homes at a time convenient for the family, except for some of the final sessions with families 5 and 6, which were conducted over the phone. Each session was conducted following the SSTP manual, and lasted approximately 1 hour. Each practitioner monitored fidelity to the SSTP manualized program, and discrepancies are noted in Table 1.

2.3. Quantitative Measures.

2.3.1. Depression-Anxiety-Stress Scale (DASS)

Parental psychological well-being was measured using the Depression-Anxiety-Stress Scales (Lovibond & Lovibond, 1995). This 42-item questionnaire uses a 4-point Likert scale (0 = "did not apply to me at all" to 3 = "applied to me very much or most of the time") to assess the extent to which the respondent experienced depression, anxiety and stress over the past week. All three scales have high reliability and validity. This measure is part of the standard SSTP protocol and was collected by the SSTP practitioners.

2.3.2. Parenting Self-Efficacy Questionnaire

Parental self-efficacy was measured using an adapted version of the Parent Self-Efficacy Questionnaire (Hastings & Symes, 2002). We chose this 5-question measure because the questions strongly aligned with the purpose of this study. The questions included: (1) How confident are you in dealing with your child's disruptive behaviours?; (2) How satisfied are you with the way in which you deal with your child's disruptive behaviours?; (3) To what extent do you feel in control of your child's disruptive behaviours?; (4) To what extent do you feel like you contribute to your child's problem behaviours?; and, (5) How difficult do you personally find it to deal with your child's disruptive behaviours? Questions were answered on a 9-point rating scale, ranging from 1 = "Not at all" to 5 = "fairly" to 9 = "very". A total score was derived based on the sum of the individual question scores. This measure was not part of the standard SSTP protocol and was collected by the research assistant at the same time as the interviews were conducted.

2.3.3. Supports and Services Questionnaire

Perceived service needs were measured by a supports and services questionnaire developed for this study, but based loosely on the Supports and Services Questionnaire used previously by the CanChild Centre for Childhood Disability, which they adapted from the Partnership and Family Quality of Life Survey (Beach Centre on Disability, 2003). Parents were asked "Which of the following services would you like for your child?" with 7 choices: behaviour support, counseling and psychological

services, health services, occupational therapy, physical therapy, service coordination, speech-language services; and, “Which of the following services would you like for your family?” with 7 choices: child care, counseling, information on autism, respite, parent training, sibling support, parent support groups. Both questions were answered on a 5 point scale: 0 = none, 1 = just as things come up, 2 = every couple of months, 3 = monthly, or 4 = weekly. This measure was not part of the standard SSTP protocol and was collected by the research assistant at the same time as the interviews were conducted.

2.4. Qualitative Data - Responsive Interviews

An independent research assistant (i.e., not affiliated with the service providers) conducted in-depth, semi-structured interviews with all participants. Each parent interview lasted 30-90 minutes, averaging approximately 1 hour. The purpose of these interviews was to elicit participants’ stories about their child with autism and their family life, including their adaptive resources and demands (e.g., the child’s behaviours in the context of family life); how each parent makes sense of (i.e., interprets) their child’s behaviours; their expectations and experience of SSTP, including implementation of new knowledge and skills; and, their perceived need for and role of professionals/services for their child and family. Baseline interviews were conducted with all 10 families, post-intervention interviews were conducted with the 6 families who completed the program, and 3-month follow-up interviews were conducted with 4 of the 6 families who completed the program (participants 1, 3-5).

Interviews with professionals who implemented SSTP were conducted post-intervention only. These interviews lasted from 1 to 2.5 hours, and focused on the practitioners’ experiences with SSTP, including how their expectations and experiences aligned with the primary content of the program (e.g., the experience of teaching parents the strategies outlined in the 10 sessions); their perception of participants’ responses to the program, and their professional experience in delivering the SSTP program.

All interviews were audio-recorded and later transcribed in full. Additionally, detailed field notes were written immediately following each interview, which included details of persons present, a description of the environment, topics/themes that received the most attention during the interview, and the interviewer’s reflections and impressions of the interview.

2.5. Analyses

Quantitative and qualitative findings were integrated to come up with a formative understanding of the effects of participation in SSTP for parents of children with autism. Descriptive statistics were calculated for quantitative data. In addition, differences in parental self-efficacy and perceived service needs were assessed using the Wilcoxon matched-pairs signed-ranks test for non-parametric data. No statistical analysis was with data from the DASS due to the small sample size and missing data.

Interview data was analyzed using thematic analysis (Thomas & Harden, 2008). This iterative process involved moving backwards and forwards between the data and the emerging insights/categories/themes. The first step involved ‘grasping the particularity’ of each case by coding meaningful ‘chunks’ of data within each interview. A hard copy of each transcript was open coded through line-by-line coding by one of two team members (SH, AS). These ‘chunks’ were then compared and contrasted to develop appropriate categories. Once individual cases were analyzed, the case studies were compared and contrasted to identify converges (common themes) as well as divergences (the negative case or ‘exception’). Any disagreements were resolved through discussion so consensus was achieved at this level of analysis. When a negative case was identified, the research team returned to the data, and analyzed it further to interpret/explain this negative case in a way that was most consistent with the data. Additionally, member-checking was done in the form of clarification probes throughout each interview to ensure that the interviewer understood the information as the participant intended (Rubin & Rubin, 2005), and by clarifying preliminary themes from baseline interviews at follow-up interviews.

3. Results

Quantitative data is summarized in Table 3 and qualitative data is summarized in tables 4 and 5. Data from quantitative and qualitative findings is integrated below, addressing the study hypotheses, and findings important to our formative understanding of the use of SSTP for families of children with autism in the context of daily life. Three keys themes emerged from the parent interviews, which all related to how parents perceived and dealt with their child with autism’s challenging behaviours. These themes were (1) Attribution of cause, (2) Who’s the boss? and, (3) Rewarding is rewarding! Practitioner interviews also revealed important information on the usability of SSTP with families of children with autism. Although we have presented themes independently, we acknowledge the interconnectedness of findings.

Table 3. Quantitative scores for all families.

Families Who Completed the Program														
ID	Stress ^a		Anxiety ^a		Depression ^a		Parent Efficacy (Total Score; max 45)		Services Desired for Child ^b			Services Desired for Family ^b		
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Change	Pre	Post	Change
1	11	4	8	4	6	4	19	44	15	9	-6	10	10	0
1 father	13	11	11 ^c	4	13	10			15	9	-6	10	10	0
2^d	1		1		1		23	24	11	16	+5	14	14	0
3	14		2		1		19	31	14	8	-6	17	17	0
4	10	12	4	6	3	10	20	30	25	20	-5	24	19	-5
5	20 ^c		4		18 ^c		26	36	18	22	+4	12	16	+4
6	10		13 ^c		11		31	38	19	22	+3	21	23	+2
6 father							18	26	24	8	-16	26	14	-10
<i>Median</i>	11	11	8	4	6	4	18.5	35	17.5	12.5	-5	15.5	15	-0.5
<i>Mean</i>	11.29	9.0	6.14	4.67	7.57	8.00	22.75	31.88	17.63	14.25	-2.75	16.8	15.4	-1.13
Families Who Did Not Complete the Program (pre-scores only; mother's responses unless indicated)														
ID	Stress ^a		Anxiety ^a		Depression ^a		Parent Efficacy		Services Desired for Child ^b			Services Desired for Family ^b		
7	34 ^c		7		8		18		17			19		
8	19 ^c		4		6		16		14			18		
9 father	13		4		3		17		15			11		
9	2		1		1		34		11			13		
10	16		5		23 ^c		7		11			24		
<i>Median</i>	16		4		6		17		14			18		
<i>Mean</i>	16.8		4.2		8.2		18.4		13.6			17		

^aLower scores indicate better clinical outcomes.

^bHigher scores indicate desire for more intensive professional services.

^cMeets clinical cut-offs for each measure as identified by the TripleP scoring application. No cut scores for the Parent Efficacy measure.

^dFather completed all outcome measures, but mother provides vast majority of care.

Karen and Craig

Karen, Craig and their two children Sam (age 3), and Danielle (age 6) are a fairly typical suburban family. They are committed to their family, to their religion, and to their community. Karen became concerned about Danielle's development after her third birthday. She recalls bringing her daughter to Gymboree; instead of playing with the other children, she hid beneath the equipment. As she grew Danielle became afraid of everything that made noise and soon started screaming at strangers. However, the family struggled to secure support for Danielle; healthcare professionals could not settle on a diagnosis while preschools seemed unequipped or unwilling to care for her. Danielle's behaviour was attributed to pain from joint problems then to severe anxiety, but none of the explanations seemed to quite add up for Karen. She was told that her now four year old child should be put on anxiety medication, but refused until a diagnosis could be made that aligned more closely with the behaviour she was seeing.

After removing their daughter from three preschools, then being informed that she would not be allotted an aide in kindergarten, Karen and Craig made the decision to home school. Karen left her professional career to become a full time parent, teacher, therapist, dietitian and advocate for her daughter. She continued to press for a consistent diagnosis and eventually Danielle was diagnosed with Autism. Over the following years Karen embraced every opportunity that promised help for her child. She enrolled Danielle in several behavioural programs and headed the development of a socialization group for home schooled children in her area. Still, she felt insecure in her ability to manage some of her daughters more aggressive and socially dysfunctional behaviours. She found herself *"missing that split between what is autism and what is behaviour?"* (Karen, I, p.34) The family sought support from a local disability supports and services organization. There they were eligible to receive Stepping Stones Triple P training.

Both parents participated in the training, and say they would recommend it to all parents. Karen credits her Stepping Stones practitioner with helping her see her daughter apart from her diagnosis; *"I understand her better now than I did before"* (Karen, II, p.14). Together they honed in on "transitions" as the primary issue behind some of Danielle's more destructive and unpredictable behaviour. Karen feels *"it was Triple P that really helped us sort of step back, go step by step and see what's really happening instead of just taking the whole situation"* (Karen, II, p.6).

Regardless of the challenges that come with raising her daughter, Karen beams when speaking of the joy Danielle brings to her life: *"[Danielle is] so bright and funny. She likes to make these awful jokes. She's got this quirky sense of humor, she got it from her dad. I really love her sparkle"* (Karen, I, p.18).

3.1. The effect of SSTP on parental self-efficacy

Two of the primary themes from parent interviews, ‘attribution of cause’ and ‘who’s the boss?’ both primarily relate to how parents perceive and deal with challenging behaviours, and the positive effect this had on parental self-efficacy. Each theme is summarized in turn below.

Table 4. Themes reflecting process of change from parent interviews^a

Theme	Description	# Participants (max 8)
Attribution of cause	Parents’ perspectives of the “cause” of undesired behavior changed from belief it was a “symptom” of autism, to belief it was a learned behavior that could be changed.	8
Who’s the boss?	Prior to program all parents reported that their child was “in charge”. After program all parents reported that they felt “in charge”.	8
Rewarding is rewarding!	Parents appreciated reframing the focus of behavior management on rewarding positive behavior, rather than only managing undesirable behavior. Four of five families felt that they neglected this approach prior to the program.	6 (5/6 families)

3.1.1. Attribution of cause

Parents in all interviews discussed the impact that SSTP had on changing their perspectives of the cause of their child’s disruptive behaviours. Prior to SSTP all parents attributed at least some disruptive behaviours to their child’s diagnosis of autism; thus, they did not think that behaviour management strategies would be effective or appropriate. For example, in a pre-intervention interview, Saad said, “I just gave up really. What else I could do? You know? Autistic, you know? We gave up really. There’s nothing else you can do”. Parents also reported feeling guilty about disciplining their child with autism because they felt “sorry for my [child with autism]” (Susan). However, after participation in SSTP all parents recognized that the challenging behaviour served a function, and was not a symptom of autism. This was empowering for all families, who then felt that the challenging behaviour might be amenable to change and that it was acceptable to use similar behaviour management strategies as they do with their other children without autism. For example, Laura, the mother of a 5-year-old boy with autism, who also had three other children, reflected on how the meanings she ascribed to her son’s behaviours changed after participating in SSTP:

“It’s sort of reassuring. It’s like ‘Yes, just because they have a disability doesn’t mean that they can get away with murder or that you can’t have expectations for a certain way to behave’. I wouldn’t be surprised if most parents, once they get that diagnosis...question that gray area, like ‘how firm should I be?’”

3.1.2. Who’s the boss?

Before participating in SSTP, all parents felt like their daily routines revolved around the perceived needs and demands of their child with autism. For example, in his pre-SSTP interview, Saad stated that, “The whole family has to suffer with him. We stayed home most of yesterday. We couldn’t go out anyway because it’s his routine. Couldn’t leave the house”. This approach of dealing with challenging behaviours by “giving in” to the child’s demands was rooted in parents’ attribution of cause (as discussed above), a lack of knowledge about alternative approaches to behaviour management, or a lack of energy or confidence to deal with challenging behaviours, even if they were aware of potential strategies.

All parents felt that participation in SSTP helped them feel “empowered” to expect and demand more positive behaviours from their child with autism, resulting in the parents feeling more in charge of their daily routines and activities. One mother, who had 2 children with autism, reported that participation in SSTP helped her “realize the cycle of negotiation her kids had her in” (Marjorie). Mary, prior to participating in SSTP, said: “If he thinks something he wants, if we can’t find it, that’s it, that’s bad”, but after participating in SSTP she stated:

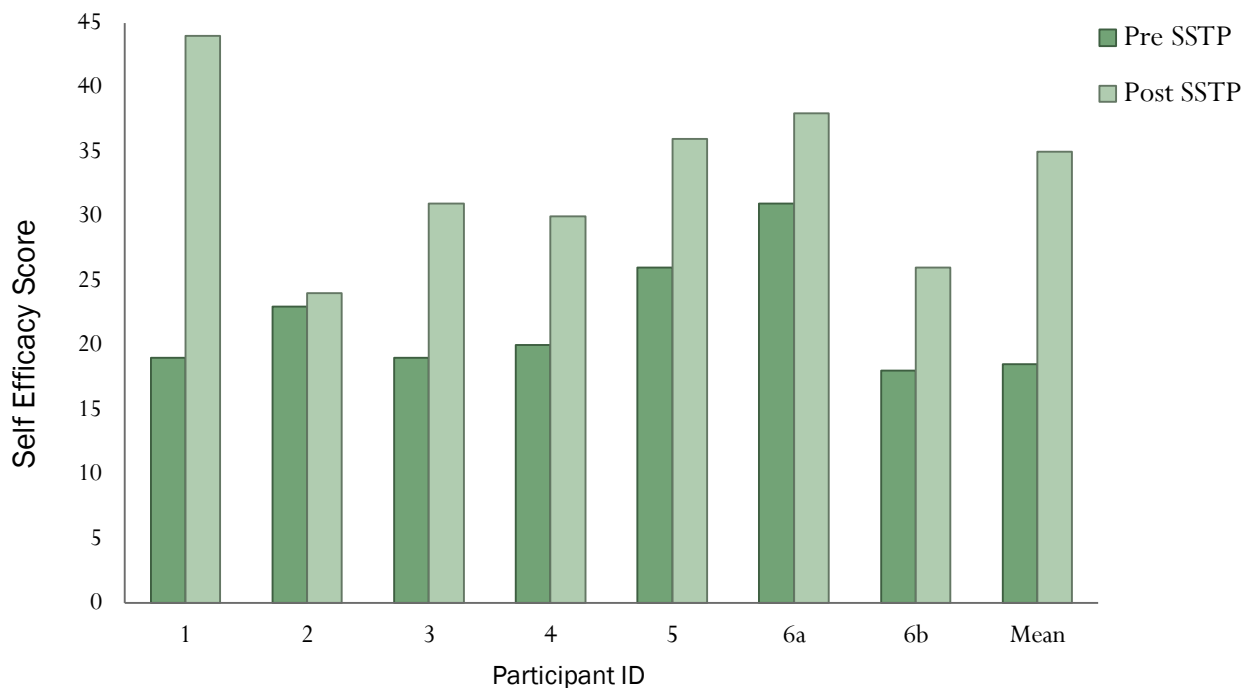
“Now he’s not the one in charge...we gave him everything before, because we’re kind of guilty he’s like that. ... Now we’re the one in charge! When we say no now, it is really no, we don’t give in. Before, we tried every time he cried, ‘okay here’ to get him to stop trying. But now he’s behaving well because he knows he is not going to get something because he is crying. It is not 100%, but we aren’t frustrated like before. Oh my God. We wanted to bang our heads out because we were so frustrated, but now no. Not anymore”.

3.1.3. Quantitative data on parental self-efficacy

Even with the small sample size, our quantitative findings also support the positive effect that participation in SSTP had on improving parents self-efficacy, at least related to dealing with their child’s disruptive behaviours (see figure 1). Overall, pre-intervention scores were similar for parents who did (median score = 18.5) and did not (median score = 17) complete SSTP. There was a statistically significant difference between pre- and post- self-efficacy total scores ($z = 2.371$, $N =$

Ties = 7, $p = .009$, one-tailed). That is, parental self-efficacy scores were significantly improved following participation in SSTP. When individual questions were considered, the improvement in parental self-efficacy appeared to be due to improved parenting confidence ($z = 2.338$, $N - \text{Ties} = 7$, $p = .009$, one-tailed), satisfaction ($z = 2.379$, $N - \text{Ties} = 7$, $p = .009$, one-tailed), and sense of control ($z = 2.226$, $N - \text{Ties} = 6$, $p = .013$, one-tailed), but not due to changes in perceptions that they contributed to their child's unwanted behaviour ($z = 0.527$, $N - \text{Ties} = 6$, $p = .299$, one-tailed) or how difficult they find it to deal with their child's unwanted behaviour ($z = 0.210$, $N - \text{Ties} = 7$, $p = .417$, one-tailed).

Figure 1. Parent Efficacy Pre and Post SSTP (max score 45)



Mary and Ryan

Originally from Southeast Asia, Ryan and Mary have made Alberta their home for well over a decade. When they learned they were pregnant with Tyler they were thrilled. Their daughter would have a sibling and their family would be complete. As Tyler grew his parents began to notice that he behaved differently than what they expected from a child his age. He could not sit still, his language was notably delayed, he was easily angered and he frequently became fixated on electronic devices. Meanwhile, Ryan began to experience health problems. In the summer of 2007 he underwent major surgery. Early in Ryan's recovery Tyler was diagnosed with Autism.

Tyler was placed on a waitlist for specialized services in 2009. The family had lost much of their informal social support network over the years and was struggling to manage. At this time both parents reported feeling insecure about their ability to deal with their son's challenging behaviours. Mary's strategy to subdue a fit from her son was to hold him tight or scratch his tummy. Ryan's tool was bribery; a chocolate bar, ice cappuccino, or something electronic.

“When he is frustrated it's like throwing everything, or opening that drawer, you know, his anger. Either stop him or yell TYLER! Sometimes I'm too busy or I'm too tired; TYLER! But when I'm okay then I have patience, you know? I'm not the perfect mom so I try to be a good mom, but I'm not the perfect mom. Sometimes he's really a handful. But when he's not frustrated he's a loveable kid.” (Mary, I, p.12).

In early 2010 the couple began Stepping Stones Triple P training. Shortly thereafter an aide was put in place to work through intervention plans with Tyler twice a week. Mary reports learning many new parenting strategies through Stepping Stones. In doing so she has developed a greater understanding of Tyler's behaviours, and a notable sense of confidence in her ability to parent him.

“Before we always like feel guilty because he is like this, that is why we give him everything he wanted, so that he is not crying. So... we forget that like we have to discipline him as well, like a normal kid. So now we know that we had to deal with him, his behaviour, other than supporting him on his behaviour. That is what we did before, we supported him in his behaviour. We were not dealing with it. Everything he wants, like when he is crying we give give. But now we realize that is not right, it's not his best interest either” (Mary, III, p.4)

The way Mary thinks about her son transformed. She has started thinking of Tyler as a child with agency that can understand her and be reasoned with: “It [was] hard because I don't know whether he understand me or not. But now I'm knowing that he understand what I said. Not talking, but he understands” (Mary, II, p. 4). She began to see his behaviours as acts that were, at least to some extent, conscious efforts by her son:

“Like before, we tried to... like every time he cry, like okay here, to get him to stop crying. But now no, that’s why now he is behaving well, because he knows he’s not going to get something because he’s crying. He can be able to use that as a tool. When he is crying ‘oh I am going to get something’. Now no, even his crying he is not going to get. The more he cries, the more he is not going to get”. (Mary, III, p. 2).

Mary now describes herself as capable of juggling the roles and responsibilities of her family life, and capable of parenting Tyler.

“I’m ok. I get like really no time for me, I have a really busy schedule but I manage to keep my life still going. You know; a job and at home and looking after that. I’m pretty much, like, my life before that... like now it’s in control! Like what do you call this? Like in control of the thing, it’s not going to burst! Maybe before I get like, you know, [clenches fists] with him and work, and like how to handle him, but now it’s ok. Like the Triple P really help us to manage and in control” (Mary, II, p. 6).

3.2. The effect of SSTP on parental psychological well-being

The interviews quickly revealed that the daily lives of the parents who participated in our study were complex and often strained, above and beyond dealing with disruptive behaviours, which often had adverse effects on their own well-being. As such, determining the effect that SSTP had on parental psychological well-being was difficult. However, one thing about participation in SSTP that parents consistently identified as positively impacting their own well-being was the focus on rewarding positive behaviour, rather than always focusing on managing negative behaviour.

3.2.1. Rewarding is rewarding!

Many parents reported that the positive approaches to behaviour management taught in SSTP caused them to reframe their approach to behaviour management in the context of daily life, resulting in positive outcomes for their child, themselves, and their family. This was achieved by improving interactions and bonding, and by allowing them to see their child for who they are, and not as “autism”. Susan reported that the most beneficial thing she learned from participating in SSTP was “just knowing that they know better and they know how to behave. I’ve seen good behaviour!” Although this statement might seem normal, most of the families we spoke with did not experience, or notice, positive behaviours on a regular basis prior to participating in SSTP, which profoundly affected their own well-being. Families talked about how refreshing it was to reframe how they viewed their children, and to focus on reinforcing positive behaviours rather than the seemingly

constant “uphill battle” of managing negative behaviours. Laura reported that participation in SSTP changed her perspective on daily priorities and well-being, with very rewarding results:

“I think the golden nugget I got from Triple P was just when they come to you to show you something or to share something with you. That is just the most important thing in the world and the best time to listen and do some incidental teaching. There’s always so much to do like these darn floors...but this is important and they’re ready. And, thinking of creative rewards is better than always coming up with creative punishments. More positive all around.”

3.2.2. Quantitative data on parental well-being

Although we obtained pre-intervention data from the DASS for 12 of 13 participants, post-intervention data was only obtained on this measure from three participants. At pre- and post-intervention, the group median score of all DASS subscales were in the normal range. However, six participants met the clinical cut-off on at least one scale on this measure at pre-intervention. Three of those parents did not complete SSTP, and post-intervention data was available for only one of the three parents who did complete SSTP. Her score did drop below the clinical cut-off at post-intervention, indicating improved well-being.

3.3. The effect of SSTP on perceived service needs

One mother, Laura, felt that the strategies they learned through SSTP and the resulting decrease in disruptive behaviours was the tipping point to desiring less professional services, which would also have a positive impact on her well-being. She stated: “We’re at the point now with our services and Triple P that we’ve gotten enough tools now that we can wing it...I’m just looking forward to having a little more family nucleus time”. However, the desire for decreased professional services overall was not a pervasive theme from the parent interviews.

On the Supports and Services Questionnaire, parents indicated a moderate need/desire for both child and family-focused services overall, desiring services, on average weekly to monthly. There was no statistically significant difference between pre- and post- service needs total scores for child-focused services ($z = 1.272$, $N - \text{Ties} = 7$, $p = .102$, one-tailed) or family-focused services (Total Score: $z = .730$, $N - \text{Ties} = 4$, $p = .2325$, one-tailed). That is, parents, as a group, desired similar levels of services overall following participation in SSTP. However, when individual parent scores were considered, three parents perceived an increased need and five parents perceived a decreased need related to the intensity of child-focused services. That is, parents still wanted services, but less often.

Regarding family-focused services, one parent desired increased intensity of services; three parents desired decreased intensity of services; and five parents reported no change.

Because SSTP is focused on behaviour, it was also important to look at changes in the types of services that parent's desired before and after participation in the program. It would make sense that participation in SSTP might not change the desire for services such as speech-language pathology or physical therapy because these therapies do not primarily target disruptive behaviours. Overall, the greatest desire for child-focused services pre- and post-intervention was for speech pathology and behaviour consultation. On average, the desired intensity for each of these services decreased from weekly pre-intervention to monthly post-intervention. The greatest desire for family-focused services, both pre- and post-intervention was for respite, child-care services, and parent training. All of these services were desired monthly, on average, both pre- and post-intervention.

Susan

Susan works full time as an allied health professional, and is the single mother of three young children; Nick (age 3), Claudia (age 6), and Britney (age 9). Susan began to suspect that something was different about Britney at a young age. Britney didn't want to play with stuffed toys or watch cartoons; she liked cell phones, computers and learning about the make and model of every car she saw. At age five Britney was diagnosed with Autism. Susan was 'crushed'; *"I guess as a parent you know there's something wrong but you just want to hear that there's not and that it's just going to go away"* (Susan, II, p.10).

As she grew Britney began to demonstrate aggressive, defiant behaviours as well as disabling anxiety. Soon Susan's younger daughter, Claudia, began exhibiting similar hostile behaviours; a diagnosis of oppositional defiance disorder was queried: *"Some days I'm not sure who is harder to handle!"* (Susan, I, p.7). Susan tried to cope by 'bribing' her children to behave appropriately. When that failed, she would simply ignore the behaviours, hoping they would resolve themselves in time. Susan confessed that she lacked the confidence to deal with outbursts from her daughters: *"I often don't feel like I have proper control of their behaviours and so forth. I have tried different things of course, umm... but it doesn't always work. It's improving some but I don't think it's at the point where I feel comfortable as a parent to effectively control or prevent those behaviours from happening over and over and over again"* (Susan, I, p.1). Despite the challenges of raising Britney, Susan wanted us to know that *"she's really got a huge heart. Can't always express it or show it but from how she sometimes acts or behaves or so forth, I know how much she cares about others, even though she can't always express it"* (Susan, I, p.5).

Susan began the SSTP program in the summer of 2010. Due to her hectic schedule and minimal support network, Susan took longer to complete each training session. She and her Triple P practitioner created a time line where at least three weeks would pass between sessions. This space allowed Susan to spend one week practicing new strategies with each of her three children. She describes the process as ‘empowering’: *“Well I guess overall with the program it has allowed me to deal with behaviors in a more effective or positive way... you could say. It was not only for Britney, I was able to apply it to the others, right? It allowed me to... it kind of empowered me in a sense right? So it made me realize ‘darn it you know what - these are the kids – I am the boss - in the end they will do what I want them to do”* (Susan, II, p.1).

Since completing SSTP training, Susan reports greater confidence in her ability to handle her daughters challenging behaviours. She also reports having greater confidence in her children, and now holds higher expectations for good behaviour: *“A year ago things were complete and total chaos! I think too the idea of having expectations from the kids as well right? Knowing what they’re capable of or so forth right? And expecting certain behaviours. Sure I’ll help them get there, but they have to do their part in knowing that... they know they’re capable, I know they’re capable of being good kids, unfortunately they just need lots of reminders, you know, structure and guidance. So just knowing that they know better, they know how to behave. I’ve seen good behaviour”* (Susan, II, p.6).

Susan sums up her experiences with SSTP: *“I think the biggest thing too is to stay in control. Knowing that they’re the kids, they’re not the boss. I think that’s a huge thing. And I think the positive encouragement, that it can be done type thing and lots of people have the same situation or similar or even worse, and you do it, you get through it. There’s ways to get through it and there’s strategies and people to go to and so forth. So, yeah it was good”* (Susan, II, p.4).

3.4 Practitioners perspectives on the usability of SSTP with families with children with autism

Five common themes emerged from the practitioner interviews, including (1) appropriate participants, (2) timing of SSTP, (3) qualifications of practitioners, (4) SSTP preferences, and (5) the structure of SSTP. Each of these themes is discussed in turn below (see Table 5).

3.4.1. Appropriate participants for SSTP

All three practitioners felt that SSTP was a useful program, but in the 10-week form was appropriate for a relatively narrow range of families of children with autism. For the families in this study, the practitioners reported that “over half the parents were at a point of crisis...and wanted anything to

throw at the problem”. Specifically, they reported that stability in family well-being and adequate time was required. For example, the registered psychologist thought that SSTP is “perfect for people that I think feel that they’re generally okay parents but they just, for whatever reason, can’t get it together”, and the educator thought that: “Two types of parents really benefit. The parent who just needs to be validated...that they already have the skills...and stable families who are struggling because they genuinely don’t feel they have any strategies and don’t know what to do”. Importantly, practitioners felt that the time commitment for SSTP may be difficult for families who received other therapeutic services for their child with autism. For example, the psychologist stated: “Parents on [therapeutic] services have people coming into their home constantly”. Therefore, she thought “It might make more sense to provide them with Stepping Stones before services, before they get ‘burnt out’.”

Table 5. Themes on the usability of the program from SSTP Practitioner interviews

Theme	Description
Appropriate participants	Practitioners all discussed the importance of being very careful for whom the program is recommended, suggesting that families require: (1) motivation, (2) stable personal, family and marital life, and (3) should not be involved in too many other services to allow adequate time.
Timing	Practitioners felt that the recommended weekly sessions were not reasonable to enable families to complete homework in the context of everyday life for families with a child with a disability.
Qualifications of practitioners	Practitioners talked about struggles with scope of practice, and the potential to enter “dangerous territory” given the focus on parenting practices and types of data collected as part of the program. Practitioners felt that training in counseling skills would be an asset.
Session preferences	Practitioners reported that families often wanted to drop out after session 4 because they felt that they had gained the knowledge they wanted and often did not want to be observed.
Structure of program	All practitioners appreciated the structure of the program and found it user-friendly. Practitioners reported similar feedback from parents.

3.4.2. Timing of SSTP

Similar to determining appropriate families, all of the practitioners felt that the timing of SSTP, specifically the recommended weekly sessions, was difficult for many families with a child with autism, especially families who received other therapeutic services. Along those lines, most of the

practitioners took leeway with the recommended weekly sessions. For example, practitioner 2, who had completed SSTP with dozens of families, stated:

“It always takes longer than it is supposed to. Leaving a gap for parents to practice new skills can be a good thing, especially after week 3. You have to wait until they have a handle on encouraging desirable behaviour and are seeing progress before working on managing misbehaviour. Sometimes you need to break one session down into two... You also have to stop if a barrier comes up, like a marriage in trouble or maternal depression. Let them focus on that and then start up again.”

Although the practitioners acknowledged, “momentum is best if you do it the way it’s supposed to be”, they all agreed that most of the families with whom they worked were unable to complete all of the homework and maintain their other activities of daily living. However, there was some disagreement amongst the practitioners about how to address issues around timing. For example, one practitioner stated that “you need to focus on the issues directly related to Stepping Stones and not address outlying issues” whereas another practitioner stated: “the initial Triple P assessments often brought up a slew of additional issues she then felt an ethical responsibility to address”, which may have been associated with the professional training and background of the practitioner.

3.4.3. Qualifications of Practitioners

All of our practitioners were trained and qualified through the Triple P International certification process, including the additional training required for the Stepping Stones program, above and beyond standard Triple P training. However, they all expressed concerns about the lack of regulations around who can administer SSTP. In other words, the professional background or training of the practitioner is not regulated, as long as he or she has received Triple P certification.

Practitioners expressed concerns about other training due to the potential for co-morbid mental health concerns or marital issues that can be associated with the stress of raising a child with autism.

Therefore, they all discussed the need to strict guidelines around the role of the SSTP practitioner, the need for concrete and accessible referral mechanisms to mental health professionals if required, and all agreed with one practitioner’s statement: “Outcomes depend largely on the practitioner.

Having training in counseling skills is a definite asset. It may not work as well if the practitioner does not have these skills”.

3.4.4. Session Preferences

All practitioners felt that parents appreciated the first 4 sessions the most because “they got what they came for”. Additionally, practitioners felt that after session 4 “parents feel that they have the skills and also don’t want to be observed”. However, practitioner 2, who has extensive experience with Triple P and SSTP, nicely put participation in SSTP into perspective with her comment:

“Getting post-assessments is like pulling teeth. Once they’re done they have no reason to put the time aside for it. But even without the last sessions it is still a success. It’s the eternal diet; A five pound weight loss when you’re going for ten is not failure.”

3.4.5. Structure of SSTP

All practitioners appreciated the structure of SSTP, and reported that parents also regularly provided this feedback to them. Specifically, practitioners talked about appreciating the worksheets and videos as multi-modal, concrete, teaching tools. However, even though the program was very organized and systematic, the practitioners also thought that it felt natural, like “just sitting down and talking about parenting”. They also thought that SSTP was a lot more “user friendly” than other behaviour modification programs with which they were familiar.

4. Discussion

This is the first independent evaluation of Standard SSTP with families of children with autism of which we are aware. Additionally, this study was conducted in the context of families’ daily lives, and thus provides important information on the feasibility and effectiveness, beyond efficacy, of SSTP for families of children with autism.

Our main hypothesis was supported. Overall, participation in SSTP did result in fundamental, positive changes in the meanings parents ascribed to their child’s behaviours and to their own experience as parents and caregivers. Like Whittingham and colleagues (2009a), we found that following participation in SSTP parents were more likely to attribute their child’s undesired behaviour to a “cause” outside of the child. In other words, the behaviour was seen to serve a function and was not a “symptom” of autism. This empowered parents to feel that the behaviour could be changed and have positive implications for both the child and family.

Similar to Roberts and colleagues (2006), our small sample did not suggest that participation in SSTP reduced parental stress. Although we acknowledge that disruptive behaviours can substantially contribute to parent stress, this finding highlights the complexity of families’ lives, and the numerous other factors that contribute to parental stress outside of their perceived ability to manage their

child's disruptive behaviours. Families of children with autism often experience considerable care loads, above and beyond normal parental care demands, including energy directed towards navigating, coordinating and participating in therapeutic services. Mazzucchelli and Sanders (2011) acknowledge the potential for help seeking strain amongst parents of children with developmental disabilities, and recognize that coordination of services may help decrease strain. However, access to coordinated services is not the lived reality for families at this time (Hodgetts, Nicholas, McConnell & Zwaigenbaum, submitted), and was reported by one participant as the reason for not completing SSTP. We find the 2-session SSTP format evaluated by Sofronoff and colleagues (2011) to be especially intriguing given the struggles that families expressed in fitting the 10-week SSTP program and homework into their daily lives, especially in the context of receiving other therapeutic services.

Forty percent of our participating families did not complete SSTP, primarily due to issues with marital conflict or parental mental health. There is an additional level of SSTP intervention strength (Level 5), Enhanced Triple P, which is designed for parents of children with problem behaviour in the context of family dysfunction. In addition to the focus on parenting skills provided in standard SSTP, the enhanced program focuses on care-giving coping skills (Sanders, 1999). The families who dropped out of our study may have been better candidates for this program level given their context of family dysfunction. However, because it includes all of the Standard SSTP materials plus supplemental material, it still may have been inappropriate or unfeasible due to the time commitment required to participate in the program or lack of ability to focus on the program in light of other life stressors. Also, Plant and Sanders (2007) did not find significant differences in outcomes between SSTP and SSTP-enhanced for families of children with developmental disabilities, questioning the investment into the additional intervention, and potentially the suitability of families "in crisis" for parenting programs in general.

Two of our non-psychologist practitioners acknowledged the potential for SSTP to identify topics and issues outside of their scope of practice or comfort zone. Only psychologists delivered SSTP when it was first developed. To extend dissemination of the program, accreditation training was made available to professionals beyond psychology (Sanders, 1999). This finding highlights the need to closely screen and monitor additional skills and knowledge of potential practitioners during the accreditation process, especially given the potential complexities and stressors associated with having a child with autism. The province in which this research was conducted has trained many unregulated professionals (i.e., not registered health professionals) to deliver various levels of Triple P to families (not necessarily families of children with autism). The practitioners in this study

highlighted the importance of having a strong knowledge of autism and its symptoms and co-morbidities when conducting SSTP with this population. Following participation in SSTP, participants in a study by Whittingham and colleagues (2009c) reported that they would like to have a positive parenting program that was specific to autism. Our parents did not provide that feedback, perhaps due to the extensive experience that all of our practitioners had in working with families of children with autism.

Participation in SSTP did not generally change levels of dependence on professionals and services, although the perceived need for behaviour support in particular did decrease from weekly to monthly overall. However, the desire for both speech-language and behavioural intervention decreased, suggesting that the decreased desire for services may not have been due to participation in SSTP, or perhaps some of the strategies implemented through SSTP helped improve communication (with the goal of decreasing disruptive behaviour), thus decreasing the desire for speech-language intervention. The lack of change in desire for family-focused services might also indicate that SSTP was not effective in providing necessary information to parents, or this could be interpreted that parents felt the program was so beneficial that they want to participate in further parenting programs.

The mother who said Triple P was the tipping point for discontinuing therapeutic services also had the highest initial parenting self-efficacy score. She fit the practitioner's opinions that the families who benefit most from participation in SSTP are the families who want validation of existing knowledge and skills. Importantly, service providers and funders should not use SSTP as a replacement for other developmentally appropriate services. Research demonstrates that the effects from behavioural family intervention in general attenuates over time and development; thus, a continuing care model of service delivery for families of children with disruptive behaviour is recommended (Lundahl, Risser & Lovejoy, 2006). Professionals and funders also need to make sure that desire for services is not interpreted as dependency on services. Parents intuitively want to do whatever they can to help their children develop, and often do so at the expense of their own well-being (Hodgetts, McConnell, Nicholas & Zwaigenbaum, in preparation). Further, parents desire for services is perhaps especially understandable for families of children with autism for which the cause and optimal treatments are not yet known. The burden to find ways to make these potentially beneficial programs fit within the complex lives of families of children with autism is up to professionals and service providers, not families.

4.1. Limitations and directions for future research

The major limitation of this study is the small sample size. However, the rigor with which the study was conducted, and the consistency of themes and depth of qualitative data gave us confidence in the findings regardless of the small sample size, especially related to the positive benefits that participation in SSTP had on improving parental self-efficacy. Related to our small sample, the lack of post-intervention DASS measures is disappointing. This finding reinforces our practitioner's comments that getting post-intervention measures from participants is very difficult. This is important information going forward as the use of SSTP increases and researchers test questions beyond the efficacy of the program and elucidate components of the program that are meaningful to families.

Future research should determine optimal ways of providing SSTP to parents of children with autism in the context of existing supports and services. Put differently, we need to figure out how to provide services to families in ways that do not further increase their care demands.. The 2-session format evaluated by Sofronoff and colleagues (2011) is an intriguing example of this. The most meaningful and salient components of SSTP for families of children with autism also need to be elucidated, as well as additional approaches, delivery methods or content that might be beneficial for this group.

5. Conclusions

This study provides preliminary evidence for the use of SSTP with parents of children with autism to improve parental self-efficacy related to dealing with disruptive behaviours. Participation in SSTP did not broadly affect parental adjustment and well-being due to numerous other factors and complexities in their daily lives. Further, participation in SSTP did not generally decrease parents' desire for having professional services overall, although it did decrease the intensity of behavioural and adjunct services that some parents desired, at least immediately following participation in SSTP.

References

- American Psychiatric Association (APA; 2000). *Diagnostic and Statistical Manual of Mental Disorders, 4th Ed.* Text Revision. Washington, DC: Author.
- Brereton, A., Tonge, B.J. & Einfeld, S.L. (2006). Psychopathology in children and adolescents with autism compared to young people with intellectual disability. *Journal of Autism and Developmental Disorders, 36*, 863-870.
- Brookman-Frazee, L., Stahmer, A., Baker-Ericzen, M.J. & Tsai, K. (2006). Parenting interventions for children with autism spectrum and disruptive behaviour disorders: Opportunities for cross-fertilization. *Clinical Child & Family Psychology Review, 9*, 181-200.
- Centre for Disease Control. (2008). Prevalence of autism spectrum disorders - autism and developmental disabilities monitoring network, 14 sites, United States, 2008. *Surveillance Summaries, 61* (SS03), 1-19, 2012.
- Coleman, P. & Karraker, K. (1997). Self-efficacy and parenting quality: Findings and future applications. *Developmental Review, 18*, 47-85.
- Dunlop, G. & Fox, L. (1999). A demonstration of behavioural support for young children with autism. *Journal of Positive Behaviour Interventions, 1*, 77-87.
- Dunn, M.E., Burbine, T., Bowers, C.S. & Tantleff-Dunn, S. (2001). Moderators of stress in parents of children with autism. *Community Mental Health Journal, 37*, 39-52.
- Hastings, R.P. (2002). Parental stress and behaviour problems of children with developmental disability. *Journal of Intellectual & Developmental Disability, 27*, 149-160.
- Hastings, R.P. & Symes, M.D. (2002). Early intensive behavioural intervention for children with autism: Parental therapeutic self-efficacy. *Research in Developmental Disabilities, 23*, 332-341.
- Hodgetts, S., McConnell, D., Nicholas, D. & Zwaigenbaum, L. (in preparation). *The impact of autism services on mothers' occupational participation and well-being.*
- Hodgetts, S., Nicholas, D., McConnell, D. & Zwaigenbaum, L. (submitted). *Parents' and professionals' perceptions of family-centered care for children with autism spectrum disorder across service sectors.*
- Hodgetts, S., Nicholas, D. & Zwaigenbaum, L. (in press). Home sweet home? Families' experiences with aggression in children with autism spectrum disorders. *Focus on Autism and Other Developmental Disorders*. DOI: 10.1177/1088357612472932.
- Howlin, P. & Rutter, M. (1987). *Treatment of autistic children*. Essex: Anchor Brendon, Ltd.
- Lecavalier, S., Leone, S. & Wiltz, J. (2006). The impact of behaviour problems on caregiver stress in young people with autism spectrum disorders. *Journal of Intellectual Disability Research, 50*, 172-183.

- Lovaas, I.O., Koegel, R., Simmons, J.Q. & Long, J.S. (1973). Some generalization and follow-up measure on autistic children in behaviour therapy. *Journal of Applied Behaviour Analysis*, 6, 131-166.
- Lovibond, S.H. & Lovibond, P.F. (1995). *Manual for the Depression Anxiety Stress Scales* (2nd ed.). Sydney: Psychology Foundation.
- Lundahl, B., Risser, H.J. & Lovejoy, M.C. (2006). A meta-analysis of parent training: Moderators and follow-up effects. *Clinical Psychology Review*, 26, 86-104.
- Mazzucchelli, T.G. & Sanders, M.R. (2011). Preventing behavioural and emotional problems in children who have a developmental disability: A public health approach. *Research in Developmental Disabilities*, 32, 2148-2156.
- McCann, D., Bull, R., & Winzenberg, R. (2012). The daily patterns of time use for parents of children with complex needs: A systematic review. *Journal of Child Health Care*, 16(1), 26-52.
- Plant, K.M. & Sanders, M.T. (2007). Reducing problem behaviour during care-giving in families of preschool-aged children with developmental disabilities. *Research in Developmental Disabilities*, 28, 362-385.
- Quine, L., & Pahl, J. (1985). Examining the causes of stress in families with severely mentally handicapped children. *British Association of Social Workers*, 15, 501-517.
- Roberts, C., Mazzucchelli, T., Studman, L. & Sanders, M.R. (2006). Behavioural family intervention for children with developmental disabilities and behavioural problems. *Journal of Clinical Child and Adolescent Psychology*, 35, 180-193.
- Rubin, H. & Rubin, I. (2005). *Qualitative interviewing*. London, England: SAGE.
- Sanders, M.R. (1999). Triple P positive parenting program: Towards an empirically validated multilevel parenting and family support strategy for the prevention of behaviour and emotional problems in children. *Clinical Child and Family Psychology Review*, 2, 71-90.
- Sanders, M.R., Mazzucchelli, T.G. & Studman, L.J. (2004). SSTP Triple P: the theoretical basis and development of an evidence-based positive parenting program for families with a child who has a disability. *Journal of Intellectual & Developmental Disability*, 29, 265-283.
- Sawyer, M.G., Bittman, M., La Greca, A.M., Crettenden, A.D., Harchak, T.F. & Martin, J. (2010). Time demands of caring for children with autism: What are the implications for maternal mental health? *Journal of Autism and Developmental Disorders*, 40, 620-628.
- Sofronoff, K., Jahnel, D. & Sanders, M. (2011). SSTP Triple P seminars for parents of a child with a disability: A randomized controlled trial. *Research in Developmental Disabilities*, 32, 2253-2262.
- Solish, A. & Perry, A. (2008). Parents' involvement in their children's behavioural intervention programs: Parent and therapist perspectives. *Research in Autism Spectrum Disorders*, 2, 728-738.

Stein, L.I., Foran, A.C. & Cermak, S. (2011). Occupational patterns of parents of children with autism spectrum disorder: revisiting Matuska and Christiansen's model of lifestyle balance. *Journal of Occupational Science*, 18, 115-130.

Thomas, J. & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Medical Research Methodology*, 8. DOI: 10.1186/1471-2288-8-45.

Whittingham, K., Sofronoff, K. & Sheffield, J.K. (2006). SSTP Triple P: A pilot study to evaluate the acceptability of the program by parents of a child diagnosed with an autism spectrum disorder. *Research in Developmental Disabilities*, 27, 364-380.

Whittingham, K., Sofronoff, K., Sheffield, J. & Sanders, M.R. (2009a). SSTP Triple P: An RCT of a parenting program with parents of a child diagnosed with an autism spectrum disorder. *Journal of Abnormal Child Psychology*, 37, 469-480.

Whittingham, K., Sofronoff, K., Sheffield, J. & Sanders, M.R. (2009b). Do parental attributions affect treatment outcome in a parenting program? An exploration of the effects of parental attributions in an RCT of SSTP Triple P for the ASD population. *Research in Autism Spectrum Disorders*, 3, 129-144.

