

The Implementation of Triple P – Positive Parenting Program: An Examination of
Key Variables and Program Adherence

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Abstract

Adoption of evidence-based parenting programs by community agencies requires an understanding of the variables that affect their implementation. This study examined variables associated with the implementation of Triple P – Positive Parenting Program in Ontario. Surveys were completed on-line by 63 administrators, 54 supervisors, and 215 service providers from 69 different agencies. In a first article, I report on agencies' pre-implementation openness, readiness, and resistance as well as on service providers' self-reported use of and adherence to the program. Respondents from the vast majority of agencies reported openness to change prior to implementation but approximately half reported that they were not ready and experienced resistance. Although the majority of trained service providers used the program, a significant minority had not delivered it since training. The average adherence rate reported by service providers who used the program was 85.9%. In the second manuscript, I report on the variables associated with implementation. The majority of respondents reported that they had adequate office resources to implement Triple P. Over half the managers (administrators and supervisors) and over two thirds of service providers reported that their agency had received adequate training. The most commonly identified barrier to implementation was agency characteristics which included organizational climate, service provider characteristics, and supervision. Adequate office resources and positive agency characteristics were associated with higher program usage by service providers. Service providers' reports impacted their individual adherence rates whereas managers had broader perspectives of the quality of implementation in their organizations. Differences in reports between managers and service providers were not associated with usage or adherence.

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Statement of Co-Authorship

This thesis contains two manuscripts, one which has been published in *Professional Psychology: Research and Practice* and a second which is in press at *Administration and Policy in Mental Health*. Both manuscripts were prepared in collaboration with my thesis supervisor, Dr. Catherine M. Lee. For both manuscripts, I am the first author and Dr. Lee is the second author. I was responsible for the conceptualization of the study, the selection of measures, setting up the survey, data collection, contact with the participating agencies, statistical analyses, disseminating the results of the study to agencies, preparation of the manuscripts, and corresponding with journal editors. Dr. Lee provided advice, support, and guidance with regards to all of these activities.

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General Introduction

The current study was an examination of factors related to the implementation of an evidence-based parenting program, the Triple P – Positive Parenting Program (Sanders, 1999) in Ontario agencies. In the study I examined variables that, according to the program evaluation and organizational literatures, have been found to impact program implementation: organizational climate, office resources, staff attributes, training needs, and supervision. The project was designed to examine adherence and usage rates in community agencies, to examine the perceptions of variables that affect the implementation of the program as reported by service providers, supervisors, and agency administrators, and to examine whether these perceptions were related to adherence and usage.

To provide background to this study, the impact of behaviour disorders in childhood is reviewed; next I review evidence-based parent training and the Triple P program. After that, I discuss key issues in implementation research, with an emphasis on the variables that impact implementation and program adherence. Finally, implementation research on Triple P is presented. Following this introduction, two manuscripts (Asgary-Eden & Lee, 2011; Asgary-Eden & Lee, in press) present the study methodology and results. An overall discussion section summarizes the findings from these manuscripts.

Disruptive Behaviour Disorders

Disruptive child behaviours such as aggression, hyperactivity, oppositional behaviour, and noncompliance are the most common children's problems for which

parents seek professional help (Kazdin & De Los Reyes, 2008; Kazdin & Weisz, 2003). According to the *Diagnostic and Statistical Manual of Mental Disorders* (4th edition revised; DSM-IV-TR; American Psychiatric Association, 2000) disruptive behaviour problems can be classified into three diagnostic disorders: attention-deficit/hyperactivity disorder (ADHD), conduct disorder (CD), and oppositional defiant disorder (ODD). The prevalence rates for these disorders indicate their pervasiveness in the general community, with even higher rates found in clinic contexts. ADHD prevalence rates have been estimated to be from 3% to 8.6% in school aged-children, prevalence rates for ODD range from 2% to 16%, and CD rates range from 1% to up to 10% (DSM-IV-TR, 2000; Merikangas, He, Brody, Fisher, Bourden, & Koretz, 2010). As is found in prevalence research on diverse mental disorders, these rates vary significantly depending on the population sampled and the methods used (DSM-IV-TR, 2000).

Without effective intervention, children with disruptive behaviour disorders may progress to aggressive, delinquent, criminal and violent behaviours in adolescence and young adulthood (Hibbs & Jensen, 2005; Kazdin & De Los Reyes, 2008). Disruptive behavioural problems negatively impact siblings, parents, peers, and teachers as well as strangers who are targets of antisocial and aggressive acts (Frick & McMahon, 2008; Johnston & Mah, 2008). Children with these problems often experience academic difficulties and have poor interpersonal relationships. Moreover, these disruptive behaviour disorders are associated with significant costs related to special education, mental health services, the justice system, and social services (Kazdin & De Los Reyes, 2008).

The family environments in which children with disruptive behaviour disorders are raised both contribute to and are affected by the behavioural problems (Sheehan & Watson, 2008). Children and youth with disruptive behaviour disorders are more likely to live in families with histories of psychopathology, child-rearing practices that contribute to the child's dysfunction, aggression between parents, poor family communication, and high levels of parental stress (Kazdin, 2005; Kazdin & De Los Reyes, 2008). To address these issues, several interventions for disruptive behaviour problems focus on parenting skills.

Evidence-Based Parent Training

Many parents receive little or no preparation for parenthood other than their personal experiences with their families (Sanders, Markie-Dadds, & Turner, 2003). Parents with little parenting knowledge may be challenged even further when confronted with a child's behavioural problems. In recent decades, many parent training interventions have been developed based on social learning theory. Gerald Patterson's research (1982) highlighted that family members inadvertently reward one another for antisocial and inappropriate behaviours. His conclusions were based on findings from elaborate studies including home observations, parent-child interaction tasks in laboratory settings, interviews, and questionnaire data collected from multiple sources (Bank, Forgatch, Patterson, & Fetrow, 1993). In laboratory and naturalistic environments, the parents of children with disruptive behaviour disorders were observed to be noncontingent in both their use of positive reinforcers for prosocial behaviour and in their application of effective punishment for delinquent behaviour (Reid, Patterson, & Snyder, 2002). This resulted in what Patterson labeled 'coercive interaction cycles' (Patterson,

DeBaryshe, & Ramsey, 1989). During these cycles, children also reinforced parents for giving in to their demands by temporarily decreasing their disruptive behaviour. Patterson developed strategies designed to reduce antisocial behaviour in children by altering parental discipline and monitoring (Reid et al., 2002).

Patterson's work in this area inspired the development of a number of interventions that share common roots in social learning theory including the Community Parent Education Program (Cunningham, Bremner, & Secord-Gilbert, 1998), Defiant Children (Barkley, 1987), Parent-Child Interaction Therapy (Eyberg & Calzada, 1998), Incredible Years (Webster-Stratton & Herbert, 1994), Triple P – Positive Parenting Program (Sanders, 1999), Parent Management Training (Patterson, 1982), and Helping the Noncompliant Child (Forehand & McMahon, 1981). Although these programs differ in the delivery of parent training, they all share a social learning foundation with similar intervention components. Broadly, they teach parents to recognize and reward positive child behaviour and to mildly punish or ignore unwanted behaviour (McCart, Priester, Davies, & Azen, 2006).

The concept of evidence-based behavioural “kernels” has been proposed to describe the most fundamental and indivisible components of interventions (Embry, 2004). Kernels are procedures which influence specific behaviours and appear to underlie effective prevention and treatment programs for children and families (Embry & Biglan, 2008). These include verbal praise, time-out, rewards, and self-monitoring (Embry & Biglan, 2008). Advantages of using kernels independently of packaged programs include cost savings and the opportunity to modify session content according to individual client needs. The disadvantages include the possibility of less intense training related to the

theory and research behind particular kernels, not having access to program developers for consultation and not having widespread supportive networks of peers using the same intervention. Parent-training interventions use service providers to facilitate enhanced parenting through modeling, feedback, practice, and role playing (Maughan, Christiansen, Jenson, Olympia, & Clark, 2005).

Early in the movement towards evidence-based practice for mental health problems, parent training interventions were identified as efficacious in the treatment of disruptive behaviour problems in children (Brestan & Eyberg, 1998). There are hundreds of reports on behavioural parent training, numerous narrative reviews (e.g., Bennett & Offord, 2001; Chronis, Chacko, Fabiano, Wymbs, & Pelham, 2004; Graziano & Diamant, 1992; Hautmann, Hoijtink, Eichelberger, Hanisch, Pluck, Walter, et al., 2009; Kazdin, 1997; Mooney, 1995; Newby & Fischer, 1991; Nixon, 2002; Pearl, 2009; Power, Russell, Soffer, Blom-Hoffman, & Grim, 2002; Taylor & Biglan, 1998) many systematic reviews (e.g., Barlow & Stewart-Brown, 2000; Bradley & Mandell, 2005; Brestan & Eyberg, 1998; Farmer, Compton, Burns, & Robertson, 2002; Pelham, Wheeler, & Chronis, 1998) and several meta-analyses that have synthesized findings on efficacy (e.g., Dretzky, Davenport, Frew, Barlow, Stewart-Brown, Bayliss et al., 2009; De Los Reyes & Kazdin, 2009; Lundahl, Risser, & Lovejoy, 2006; Maughan et al., 2005; McCart et al., 2006; Reyno & McGrath, 2006; Serketich & Dumas, 1996; Thomas & Zimmer-Gembeck, 2007; Woolfenden, Williams, & Peat, 2002). A large body of literature has found parent training interventions to be efficacious in the treatment of behaviour problems in children. Furthermore, a meta-analysis found that Parent Management Training reduces

child and adolescent conduct problems with maintenance gains to up to one year post-treatment (Harris, 2007).

Despite the evidence that parent training (PT) is helpful in improving parenting and reducing child behaviour problems, a substantial number of families who could benefit from PT do not receive services, or drop out (Bunting, 2004; Friars & Mellor, 2007; Prinz & Sanders, 2007; Sanders, 2008a). Researchers have identified a number of family characteristics that are associated with unfavourable outcome such as socioeconomic status and maternal mental health (Lundahl et al., 2006; Reyno & McGrath, 2006). In order to reach families that may need services the most, consideration should be given to improve enrollment rates and retain existing participants (Matthey, Patterson, Mutton, & Kreutzfeldt, 2006). Early identification and resolution of treatment barriers and obstacles may be key in implementing programs successfully (Lee, August, Bloomquist, Matthey, & Realmuto, 2006).

The UK National Institute for Health and Clinical Excellence (NICE) is an interdisciplinary group which bases its recommendations for services to be offered by the UK National Health Service on the best available research evidence on effectiveness. It recommended the use of group-based PT for the management of children with conduct disorder (NICE, 2007) and as a first-line treatment for children with ADHD (NICE, 2008). NICE specified that programs should last 8-12 sessions in length and should be based on social learning theory. Individual PT programs are recommended in cases where parents are particularly difficult to engage or the family's needs are too complex to be met by a group program (NICE, 2007; 2008).

In the province of Ontario, guidance on mental health service is provided by Children's Mental Health Ontario (CMHO). CMHO is composed of mental health professionals, agencies and consumers whose objective is to ensure that mental health services provided to children, youth, and their families in the province of Ontario are empirically supported (CMHO, 2008). CMHO professional guidelines for the treatment of CD also recommend the use of parent training (CMHO, 2001).

Dissemination. Recently, there has been a move towards the large scale implementation of parent training programs. In one of the most extensive examples, the UK government funded the implementation of the Parenting Early Intervention Programme project across all 150 local authorities across England (Lindsay et al., 2011). Examination of the effectiveness of behavioural parenting programs (including Triple P, the Incredible Years, Strengthening Families, and Strengthening Families Strengthening Communities) revealed improvements in self-reported parental mental health, parenting laxness, parenting over-reactivity, and children's behaviour (Lindsay et al., 2011). These outcomes were maintained for at least one year. The report concluded that evidence-based parenting programs are cost effective interventions that can be implemented on a national scale. This is one of the largest examinations of the effectiveness of evidence-based parenting programs in community agencies to date. Having established that parenting programs are cost effective in improving parent and child outcomes, it is important to examine the variables that are associated with effective implementation.

Some developers of evidence-based parenting programs have provided guidelines on how to increase effective dissemination based on their experiences with larger scale implementation efforts. For example, Webster-Stratton and Herman (2010) used a

prevention science framework to describe a dissemination model for the Incredible Years which includes selecting optimal service providers, providing quality training and ongoing consultation and supervision, and program evaluation and monitoring. The developers of Helping the Noncompliant Child described concrete strategies that were helpful in the dissemination of their program throughout a state community mental health system. Practices that helped service providers integrate the program into their daily activities included preparing packages of material for parents before sessions, organizing paperwork into folders, and maintain attendance and progress calendar for parents (Forehand, Dorsey, Jones, Long, & McMahon, 2010). Building on these recommendations, larger scale dissemination projects need to examine which variables are associated with successful implementation.

One particular parenting program has been identified as ideal for examining implementation issues. As noted by the developers of Helping the Noncompliant Child, the examination of the implementation of Triple P in communities is possible because the program has a substantial evidence base, the program developers have paid close attention to training individuals in the broader practice communities, and the program has recently been implemented on large scales (Forehand et al., 2010).

Triple P

I selected to examine Triple P for several reasons. Triple has received extensive research scrutiny. The program has been recommended by the World Health Organization (2009) and the National Institute for Health and Clinical Excellence (2009) and has been adopted across numerous countries. Moreover, because of its widespread use in Ontario, it provides a convenient and accessible sample to examine. Examining its

implementation in community agencies may provide insight into the general implementation process of evidence-based parenting interventions more generally (Forehand et al., 2010). Findings from the examination of Triple P can hopefully be generalized to other evidence-based programs with similar structures and to other parenting programs based on social learning and behavioural theories. To provide background on Triple P, I first describe the program and its levels of intervention, I then review its evidence-base and international adoption, and finally I discuss two population trials that have been conducted.

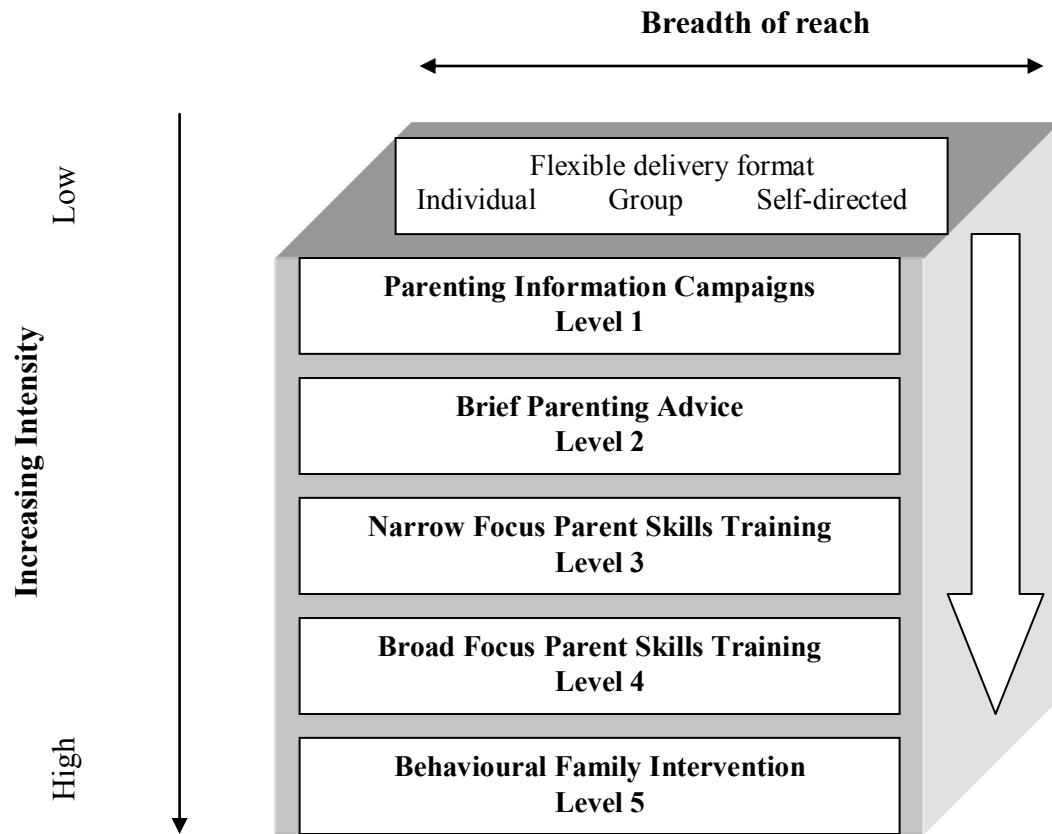
Triple P – Positive Parenting Program is a multi-level parenting intervention developed by Matt Sanders and colleagues at the University of Queensland, Australia. The program is designed to reduce emotional and behavioural problems in children by providing parents with tools to increase their knowledge, skills, and confidence in parenting (Sanders, 1999). The multi-level strategy was devised to address differing levels of problematic child behaviour and parental preferences regarding the type, intensity, and mode of intervention they favour (Sanders, 2008a; Sanders, Markie-Dadds, & Turner, 2003).

Sanders (1999; Sanders et al. 2003) reviewed the theoretical and empirical basis for Triple P. The program is based on social learning models of parent-child interaction and social information processing models that highlight the importance of parental cognitions. The program reflects a population health perspective on family interventions that focuses on the broad ecological context of human development. Triple P is also based on research on child and family behaviour therapy and applied behaviour analysis,

developmental research on parenting, and research from the field of developmental psychopathology which has identified risk and protective factors for child outcomes.

Triple P programs are designed to provide minimally sufficient interventions to decrease the length of services and the associated costs. The concept of “minimal sufficiency” is akin to the concept of “minimally effective dose” in pharmacology. In both contexts, treatment is titrated until a balance is found between the strength of the treatment and desired treatment outcome. Triple P uses various service delivery modalities to adapt the strength of the intervention according to each individual family’s needs, ranging from broad media campaigns to specific behavioural family interventions.

Levels of intervention. Sanders and Prinz (2005) presented the five levels of Triple P that are illustrated in Figure 1. Level 1 (Universal Triple P), the least intense level, entails a universal parent information strategy via media campaigns designed to increase awareness of parenting resources and introduce parenting programs as a way to deal with parenting concerns to the community at large. Level 2 (Selected Triple P) is a brief one to two session intervention provided by a primary health care worker to guide parents with children that have mild and common behavioural difficulties. Level 3 (Primary Care Triple P) is a four-session intervention that targets mild to moderate discrete behavioural problems and includes active skills training and is delivered by trained service providers to build generalization strategies to apply knowledge and skills gained to non-target behaviours and other children. Level 4 (Standard Triple P; Group Triple P) is an intensive intervention for parents of children exhibiting more severe behavioural problems. This level can be administered to groups of parents (8 sessions) or to individual parents (12 sessions) who have children at high risk of being diagnosed with



Adapted from: Sanders, Markie-Dadds, & Turner, 2003

Figure 1. The Triple P Model

a behaviour disorder. This version of Triple P is administered by group leaders who have received training in Level 4 and is designed to increase the generalizability of the new parenting behaviours to a broad range of problem behaviours, settings, and children (Sanders & Turner, 2002). Hypothesized benefits of offering level 4 in a group format include support and friendship, constructive feedback from other parents and a normalization of parenting experiences. The most intense level (Level 5; Enhanced Triple P) targets parents who have completed Level 4, but have additional sources of distress such as marital conflict, parental depression, and high levels of stress. Both Level 4 and Level 5 have been found to reduce conflict over parenting, increase relationship satisfaction, and increase communication between parents (Ireland, Sanders, & Markie-Dadds, 2003).

Developmental levels. Program materials are designed for five different developmental stages (infants, toddlers, preschoolers, children in elementary school, and teenagers) to respond to developmentally relevant concerns. For example, parents of preschoolers are taught to use planned ignoring for minor behaviour problems, whereas parents of school-aged children are taught to use directed discussion when their children break rules. Triple P programs are designed to enhance protective factors and to decrease risk factors for child problems by developing positive relationships with their children, encouraging desirable behaviour, teaching new skills, and managing misbehaviour (Sanders, Cann, & Markie-Dadds, 2003). Parents are encouraged to adopt developmentally appropriate expectations about their child's behaviour and to use assertive discipline. The importance of taking care of oneself as a parent is also stressed.

Training and supervision. Licensed Triple P trainers train service providers and provide post-training continuing education. A competency-based accreditation process has been developed to ensure service providers are proficient in delivering the program and are knowledgeable about the principles upon which the program is based. It is recommended that service providers receive training once their agency is ready to begin delivery of Triple P services, so that practitioners are able to put in practice the skills they have learned within a short time of completing training (Sanders & Turner, 2005).

Evidence-base of Triple P. Numerous studies have been conducted on the efficacy of Triple P, including over 30 randomized controlled trials (e.g., Bodenmann, Cina, Ledermann, & Sanders, 2008; Bor, Sanders, & Markie-Dadds, 2002; Matsumoto, Sofronoff, & Sanders, 2010; Morawska & Sanders, 2006; Morawska & Sanders, 2009; Plant & Sanders, 2007; Roberts, Mazzucchelli, Studman, & Sanders, 2006; Turner & Sanders, 2006a). There is evidence of maintenance of positive treatment effects from three to six months (e.g., Markie-Dadds & Sanders, 2006; Morawska & Sanders, 2006; Turner & Sanders, 2006a; Wiggins, Sofronoff, & Sanders, 2009) and up until three years post-treatment (Sanders, Bor, & Morawska, 2007). A meta-analysis of 11 RCTs found moderate to large effects in terms of reduced parent-reported child behaviour and parenting problems for most forms of the program, except Media Triple P, which had small effects (Thomas & Zimmer-Gembeck, 2007). Another, more extensive meta-analysis examined 55 Triple P studies, including studies with experimental and quasi-experimental designs (Nowak & Heinrichs, 2008). The results from this meta-analysis indicated that Triple P was associated with positive changes in parenting skills, child behaviour problems, and parental well-being; effect sizes were small to moderate. Higher

levels of improvement were found for the more intensive formats and for families that were initially more distressed. Finally, a meta-analysis exclusively examining Triple P level 4 found reductions in children's disruptive behaviour at 6 and 12 month follow-up (de Graaf, Speetjens, Smit, de Wolff, & Tavecchio, 2008). This analysis included 15 studies on parents of children aged 2 to 11 and published prior to 2006. The authors found few moderators and concluded that the program can successfully be used with a diverse range of families, using different delivery formats, and with parents of children varying in age. Overall, these numerous studies and meta-analyses make Triple P one of the most researched parenting programs.

Triple P's multi-level approach is designed to maximize efficiency, reduce implementation costs, avoid providing unnecessary services, and ensure a wide reach throughout the community (Sanders, 2010; Sanders et al., 2003). Because parents are offered services that are designed to be minimally sufficient, the intervention is intended to be short-term and cost-effective (Sanders & Prinz, 2005). Preliminary findings from a cost-effectiveness analysis suggest that the program costs less than the amount it saves, making it a good use of limited health funds (Mihalopoulos, Sanders, Turner, Murphy-Brennan, & Carter, 2007).

Cross-cultural and international adoption. Although parenting experiences vary across cultures, there are also shared parenting practices between cultures. Parents in diverse cultures experience children's behavioural and developmental problems as stressful (Sanders, 2008b). Implementation modifications may have to be made to adapt the intervention to a specific cultural context, potentially changing key treatment aspects of the program. This in turn might affect outcome results. Consequently, one cannot

assume that an intervention that is demonstrated to be efficacious in some circumstances will necessarily be efficacious in all contexts.

Parenting programs that target children at risk for behavioural problems have been found to be beneficial to parents from varying cultural backgrounds. Australian researchers have examined the efficacy of Triple P in a range of cultural and ethnic groups. For example, a randomized control trial found that a culturally tailored version of Group Triple P was efficacious in community settings servicing Indigenous families (Turner, Richards, & Sanders, 2007). The provision of Triple P has also been examined in immigrant families in Australia. A randomized control trial examined Group Triple P with Japanese parents living in Australia found decreases in child behaviour problems and increases in parenting skills (Matsumoto, Sofronoff, & Sanders, 2007).

Triple P has been disseminated internationally to 16 countries and several of these countries have large scale implementation projects (Sanders, 2008b). Initial randomized control trials have been conducted in Germany (Heinrichs, Bertram, Kuschel, & Hahlweg, 2005), Hong-Kong (Leung, Sanders, Ip, & Lau, 2006; Leung, Sanders, Leung, Mak, & Lau, 2003), Switzerland (Bodenmann et al., 2008), and Japan (Matsumoto et al., 2010). Consistent with Australian findings, these studies reported reductions in disruptive child behaviours, parental stress, and dysfunctional parenting styles, and increases in parenting sense of competence.

Population trials. There have been two large scale population trials of the Triple P program. The first, conducted in Australia, targeted all parents of 4- to 7- year-old children living in ten geographical catchment areas (Sanders, Ralph, Sofronoff, Gardiner, Thompson, Dwyer, et al., 2008). All five levels of Triple P were employed. Comparison

communities included ten sociodemographically matched areas in which parents received care as usual. At two years post-intervention, there was a significantly greater reduction in the number of children with clinically elevated and borderline behavioural and emotional problems in the Triple P communities than in the comparison communities. Moreover, parents in the Triple P communities reported a greater reduction in depressive symptoms, stress, and coercive parenting. The authors concluded that Triple P can be used as a universal and targeted prevention program.

In the second population trial, 18 South Carolina counties were randomly assigned to one of two conditions: a) a county-wide implementation of all levels of the Triple P system, or b) a services-as-usual comparison group (Prinz & Sanders, 2007). This study found large effect sizes for reducing child maltreatment, child out-of-home placements, and child maltreatment injuries (Prinz, Sanders, Shapiro, Whitaker, & Lutzker, 2009). The Triple P System Population Trial demonstrates that evidence-based programs offered on a population level can prevent child maltreatment and promote child mental health (Prinz, 2009).

From efficacy to adoption. In conclusion, a large body of research demonstrates that parenting programs can reduce behaviour problems in children (De Los Reyes & Kazdin, 2009). In particular, Triple P program developers have conducted numerous outcome studies on the program's efficacy that have yielded encouraging results. Organizations promoting child welfare have increasingly recommended the implementation and dissemination of parenting programs (American Psychological Association, 2009; National Research Council and Institute of Medicine, 2009; World Health Organization, 2009) with the goal of improving the quality of life of children and

families and reducing the costs associated with disruptive behaviour. The next step is to examine their implementation in community contexts.

Program Implementation

Implementation and outcome evaluations. The large body of published research on interventions for children and families consists primarily of outcome studies. Clinical psychologists most often think of evidence-based programs in terms of their end result – for example, reducing symptoms or maladaptive behaviours. With the push from funding agencies and community agencies to develop and adopt evidence-based programs, and the public’s request for accountability, many high quality interventions have been designed in recent years and a mounting number of outcome studies have demonstrated their efficacy (NICE, 2007). However, once program developers have established a program’s efficacy under optimal research conditions, effectiveness studies must be conducted in naturalistic conditions to see how the program fares (Flay, Biglan, Boruch, Gonzales Castro, Gottfredson, Kellam, et al., 2005).

Hunsley and Lee (2007) reviewed effectiveness studies on interventions for children and compared their completion and improvement rates to those found in benchmark meta-analyses. They found that in the treatment of disruptive behaviour disorders in naturalistic settings, completion and improvements rates were comparable to those reported in randomized clinical trials. This is preliminary evidence that programs with established efficacy can be transported to clinical settings and yield similar results.

The Society for Prevention Research’s Standards of Evidence indicate that in order for a program to be considered effective, it must measure the level of implementation and the engagement of the target audience in real-world conditions (Flay

et al., 2005). According to these standards, Triple P meets the criteria for broad dissemination. More specifically, the program has the ability to “go to scale” (i.e., the developers have developed the necessary material and support), the developers provide clear cost information, and they provide monitoring and evaluation tools. The Standards of Evidence define broad dissemination as the adoption, implementation, and sustainability of a program (Flay et al., 2005). The committee in charge of developing the Standards however commented on the need for further research on this process:

“Despite wide agreement that dissemination is the ultimate purpose of efforts to develop effective programs or policies, little empirical work has focused on the process through which interventions are adopted, implemented, and sustained. Greater research investment must be made in research on how organizations and individuals adopt effective interventions. Of equal value will be studies that examine the process through which programs or policies are consistently implemented with high quality – so that they have their desired effect.” (Flay et al., 2005, p. 166).

Interestingly, the prevention movement has been at the forefront of the examination of implementation issues. One possible explanation is that many of the large-scale prevention efforts are government sponsored programs which are required to conduct evaluations in order to receive ongoing funding. For example, the US Blueprints for Violence Prevention initiative has two overarching goals: 1) to identify effective, evidence-based programs that were designed to prevent violence and drug use in youth, and 2) to replicate these programs on a national level by monitoring implementation processes (Mihalic & Irwin, 2003; Mihalic, Irwin, Fagan, Ballard, & Elliott, 2004; Stead, Stradling, MacNeil, MacKintosh, & Minty, 2007). One of the identified model programs,

The Incredible Years, is a parent training program and another model program, Multisystemic Therapy, can include parent training components (Mihalic & Irwin, 2003). The Blueprints initiative performed extensive fidelity checks across 147 sites offering these programs for a period of two years. One of the key findings from this project is that a sound program does not produce the desired results unless it is implemented with high adherence to the original program (Elliott & Mihalic, 2004).

Fidelity of implementation. *Fidelity* refers to the extent to which a program is delivered as originally developed and is an indicator of implementation success (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005). Fidelity is a broad construct that includes adherence (the extent to which program components are delivered according to the protocols indicated in the program manuals), exposure (number and length of sessions), quality of delivery (implementer enthusiasm and preparedness), participant responsiveness, and program differentiation (unique features of a program versus another; Dane & Schneider, 1998). The implementation of evidence-based programs in real-life situations often occurs in less than ideal settings with obstacles that are not present in the controlled research settings in which the program was originally evaluated. For example, strained resources may lead to the inclusion of a higher number of participants in a treatment group than is recommended or service providers may omit components of a program, such as follow-up calls or role-plays because participants do not enjoy completing them (Stern, Alaggia, Watson, & Morton, 2008).

Thirty years ago, Dobson and Cook (1980) drew attention to Type III errors, which occur when potentially effective programs are discontinued because negative outcomes are presumed to be due to the programs being inefficacious when in fact they

are due to the programs not being implemented as designed. For example, null findings for an ex-offender program were explicable because only 1 in 20 consumers was receiving the program as described in the methods section. In the case where the program was actually implemented, the outcomes were positive. Twenty years later, a meta-analysis examining 22 outdoor interventions for youth with behavioural problems found that programs that adhered to the original version were associated with better outcomes than were those that deviated from the original program (Wilson & Lipsey, 2000). Therefore, to avoid implementation failures and Type III errors, it is necessary to assess fidelity of program implementation.

Despite mounting evidence over the last thirty years of the importance of maintaining fidelity of implementation (or program integrity), there has surprisingly been little research on the topic (Perepletchikova, Hilt, Chereji, & Kazdin, 2009). This lack of research may be explained by a variety of factors. First, there is increasing recognition of the need to balance strict adherence to an evidence-based program's protocol and the need to tailor the protocol to meet individual clients' needs (Beidas, Benjamin, Puleo, Edmunds, & Kendall, 2010; Ogden, Hagen, Askeland, & Christensen, 2009). Second, although there is consensus that the core program components need to be implemented as designed, few programs have established empirically what can be considered a core component or an additional component of the intervention. An innovative meta-analysis including 77 studies on parent training programs (Kaminski, Valle, Filene, & Boyle, 2008) found that the components associated with the largest effects included promoting positive parent-child interactions and emotional communication skills, the use of time-out and emphasizing the importance of parenting consistency, and requiring parents to

practice new skills with their children in-session. This new line of research will eventually inform clinicians about necessary treatment components and may result in a database of evidence-based “kernels” (Embry, 2008).

As noted above, there is significant debate about how much adaption is necessary for various conditions or populations (Ogden et al., 2009). On the one hand, there is a danger of substantial “program drifts” whereby program effectiveness is decreased as a result of changes to an original program (Elliott & Mihalic, 2004; Webster-Stratton & Herman, 2010); on the other hand, there is a danger that efficacious programs will not be adopted or will be abandoned if they are perceived to be too rigid.

Currently, the prevailing view among program developers is that modifications can be made in the way the program is delivered in real-world settings but the actual content of the program must remain the same as originally developed and tested (Sanders, 2010; Webster-Stratton & Herman, 2010). Developers maintain that there must be a balance between program adherence and meeting individual clients’ needs. A flexible delivery format may include lengthening sessions if needed, using examples or anecdotes to make the content relevant for a particular client population, and providing more or less in-session practice depending on the needs of the clients (Sanders, 2010). Rather than mechanistically following precise scripts, it is recommended that service providers be encouraged to deliver programs flexibly and collaboratively, making the process as engaging as possible (Webster-Stratton, 2010). These customizations are designed to ensure that a high level of fidelity to the original program is maintained and implementation failures are minimized.

Stages of implementation. The implementation of a program is progressive. Process evaluations can be helpful for identifying implementation obstacles when a program is in the beginning stages of implementation and can also be used to describe implementation difficulties that more established programs are experiencing. Based on a review of the empirical literature, Fixsen and colleagues (2005) identified six stages of implementation: exploration and adoption, program installation, initial implementation, full operation, innovation, and sustainability. Fixsen has used these stages descriptively, but as of yet there has been no operationalization or measure of the stages of implementation (Aarons, Hurlburt, & Horwitz, 2011; Fixsen, personal communication, August 8th 2008).

Research on implementation. As noted previously, treatment research rarely systematically examines implementation issues. Early work by Moncher and Prinz (1991) found that 18.1% of 359 treatment outcome studies published in clinical psychology, psychiatry, behavioral therapy, and family therapy journals from 1980 to 1988 reported on program fidelity. Unfortunately a review of 148 parent training studies published between 1975 and 1990 found that only 6% of them reported measuring fidelity (Rogers-Weise, 1992). Domitrovich and Greenberg (2000) reviewed 34 programs aimed at preventing mental health disorders in school-aged children that were deemed to be effective and found that 11 studies (32%) considered implementation factors in their analyses. Many of the highest-quality programs failed to monitor and verify program integrity. The authors concluded that the failure to examine implementation processes weakens the conclusions based on outcomes and reduces the chances that replications will resemble the original programs. Perepletchikova, Treat, and Kazdin (2007) reviewed

147 articles from the six most influential journals in psychology and psychiatry published between 2000 and 2004. In total, randomized controlled trials of 202 treatments were included in the analyses. Perepletchikova et al. (2007) found that integrity of implementation procedures were adequately addressed in only 3.5% of the interventions.

In a follow-up study, Perepletchikova et al. (2009) contacted the authors of these RCTs to assess barriers to using treatment integrity implementation procedures. The strongest barriers included a lack of theory and guidance on these procedures; time, cost, and labour; the lack of general knowledge about treatment integrity and lack of editorial requirements for reporting these procedures. Some program implementers considered that the availability of manuals and detailed descriptions of how interventions are to be implemented were sufficient to guide reliable implementation. Empirical evidence indicates however that manuals are necessary for program implementation, but are not sufficient to ensure the integrity of the implementation (Dumas, Lynch, Laughlin, Smith, & Prinz, 2001). Moreover, the Perepletchikova et al. (2007) study found that only 65% of the RCTs indicated use of a specific protocol. Perepletchikova et al. (2009) concluded that “ethical and professional responsibilities of the psychotherapy field demand amendments to the continually demonstrated neglect of treatment integrity.” (p. 217). In summary, there has been a crucial and significant shift in intervention science focused on the development of evidence-based treatments. However, implementation issues are still only addressed in a minority of intervention studies. The next phase includes the examination of the implementation and adoption processes.

There is usually a lag between the demonstration of a program’s efficacy and its wide-spread adoption. Evidence-based treatments and interventions for children and

families have not been widely adopted by community service providers (Hemmelgarn, Glisson, & James, 2006; Prinz & Sanders, 2007; Weisz, Jensen-Doss, & Hawley, 2006). This has led to the examination of implementation processes that must be addressed in order to increase the adoption of evidence-based programs and ensure their effective implementation.

Prinz and Sanders (2007) proposed organizational factors that should increase the effective implementation of a parenting program. According to Prinz and Sanders, organizations must ensure that their staff are adequately supported and supervised to ensure program integrity, to increase adherence, and to make sure that the program becomes part of the service providers' core set of responsibilities. Because evidence-based interventions for families and parents are not widely adopted, large scale implementations have rarely been systematically studied (Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001; Ogden, Forgatch, Askeland, Patterson, & Bullock, 2005). Research on real-world service providers, agency operations, and the content of services for children and families would help program implementers to be able to anticipate and address implementation challenges (Hoagwood & Kolko, 2009)

Variables Associated with Implementation

Various researchers have identified key variables that affect program implementation. These have been described in theoretical models by Chen (1990, 1998), Fixsen et al. (2005), and Simpson (2002). These models have highlighted the need to examine implementation issues and have provided a framework for subsequent empirical investigations. For example, Fixsen and colleagues proposed "core components" that affect implementation including staff selection, training, ongoing coaching/consultation,

staff performance assessment/fidelity, and facilitative administration. Simpson's model was used to conceptualize several studies exploring factors that affected the implementation of over 800 intervention programs (Simpson & Flynn, 2007). These models were developed to broadly describe and guide the translation of research into practice and are not specific to parenting interventions.

Research has lent support to these models by confirming that certain variables are related to program implementation. For example, the Blueprints Initiative conducted one of the largest and most extensive examinations of implementation processes and used implementation data from 147 sites to identify critical elements for the successful implementation of evidence-based programs (Mihalic et al., 2004). As previously mentioned, this initiative included one parent training intervention and one intervention with parent training components. Findings from this project will be reviewed below.

Reviews have been conducted to synthesize many of the empirical findings of the variables that affect implementation. Durlak and DuPre (2008) reviewed 81 quantitative and qualitative reports with data on implementation and identified contextual factors that influence the process including organizational climate, adequacy of resources, adequate training, and supervisory support. Beidas and Kendall (2010) reviewed studies published between 1990 and 2008 using the "systems-contextual" perspective, which emphasizes the importance of therapist, client, and organizational variables that influence therapist training, uptake, and adoption of evidence based interventions. They found that changes in therapist's behaviour, including adhering to a program, only occurred when the quality of training, practitioner variables, client variables, and organizational support were considered. The authors noted that very few studies assessed all of these variables. These

two reviews (Beidas & Kendall, 2010; Durlak & DuPre, 2008) contained dozens of studies including some interventions with parent training components, but were not specific to parenting interventions. The next step is to examine the culmination of these variables and their association with implementation specifically with respect to evidence-based parenting interventions.

Although the principal variables are presented slightly differently in each of the aforementioned models, some components are present in all models. Table 1 presents the key variables that have emerged consistently in the review of the literature:

organizational climate, adequacy of resources, staff attributes, training and ongoing support, and supervision. These core variables have been shown to facilitate program implementation; their absence has been shown to act as a barrier to program implementation. In all of these models, no single variable accounts for the success or failure of implementation efforts and therefore it is important to assess multiple components when examining the implementation of a program. To date, no model has proposed either a sequence or hierarchy of the importance of these variables for successful implementation. Moreover, although parenting training components were included in some of these studies, none of them exclusively examined them. Though it is reasonable to believe that similar variables will influence the implementation of evidence-based parenting programs, this has only started to be explicitly examined.

Organizational climate. Organizational climate refers to the way that individuals perceive their work environments (Glisson, Landsverk, Schoenwald, Kelleher, Hoagwood, Mayberg, et al., 2008). Results from studies examining implementation have underlined the importance of organizational variables for successful program

Table 1

Core Implementation Variables Identified by Theoretical and Research Models

Variables	Beidas and Kendall (2010)*** †	Chen (1990, 1998)*	Durlak & DuPre (2008)*** †	Fixsen et al. (2005)*	Blueprints (Mihalic et al., 2004)** †	Simpson (2002)*
Organizational climate	X	X	X	X	X	X
Adequacy of resources				X	X	X
Staff attributes	X	X	X	X	X	X
Training and ongoing support	X	X	X	X	X	X
Supervision	X	X	X	X	X	

Note. * Theoretical models; ** large scale implementation study; *** reviews. † Included data on interventions with some parent training components (but did not specially examine parenting interventions)

implementation. The Blueprints Initiative found that successful implementation was associated with strong perceived administrative support, formal organizational commitment to the program and staffing stability, and community support for the program (Elliott & Mihalic, 2004). A lack of administrative support for the implementation of the program was found in each site that did not successfully implement the programs. This lack of support resulted in lower levels of service provider motivation and interest in the program (Mihalic et al., 2004). Organizations with poorer climates have been found to have higher levels of staff turnover (Glisson, Schoenwald, Kelleher, Landsverk, Hoagwood, Mayberg, et al., 2008). In turn, high rates of staff turnover have been found to negatively impact implementation quality and at the extreme have been associated with the discontinuation of programs (Massatti, Sweeney, Panzano, & Roth, 2008; Mihalic et al., 2004; Zazzali, Sherbourne, Hoagwood, Greene, Bigley, & Sexton, 2008). The Blueprints Initiative also found that a positive effect on program adoption was found when everyone involved shared the program's goals and objectives (Mihalic et al., 2004). Data collected from agency administrators have highlighted the importance of the program fitting with the organization's mission (Zazzali et al., 2008).

Managerial support has been repeatedly found to increase the likelihood of program adoption and successful implementation (D'Aunno, Vaughn, & McElroy, 1999; Gottfredson et al., 2000; Kam, Greenberg, & Walls, 2003; Klein & Sorra, 1996). Klein, Conn, and Sorra (2001) analyzed data from 1,219 respondents in 39 sites and found that resource availability and management support for program implementation led to high-quality implementation practices. Common methods for examining organizational climate include self-report measures, interviews with service providers and agency staff, and conducting focus groups. Organizational climate has been examined in various types of community agencies, and more recently in children's mental

health agencies (e.g., Glisson et al., 2008). A more recent study specifically studied the perspectives of service providers trained in an evidence-based parenting program. Low perceived workplace support was found to be associated with lower usage of the program (Sanders et al., 2009). This finding however was based on the answer to a single item question about workplace support. A subsequent step would be to confirm this finding using a psychometrically sound measure.

Adequacy of resources. Facilities, equipment and financial resources play a role in determining organizational behaviour (Brown, 1997; D'Aunno et al., 1999; Elliott & Mihalic, 2004; Klein et al., 2001; Lehman, Greener, & Simpson, 2002). Despite the intention to adopt a new program, without the necessary equipment and space, implementation is impossible (Stern et al., 2008). Insufficient resources have also been associated with lower levels of implementation fidelity (Mancini, Moser, Whitley, McHugo, Bond, Finnerty, et al., 2009). Agency resources have been assessed by examining agency records, observation, conducting interviews with staff and administration, and self-report measures. Descriptive data on the adequacy of resources, including office space, have been reported in agencies serving children and families (Barwick, Boydell, Stasiulis, Ferguson, Blase, & Fixsen, 2005). It would be informative to examine the effects this variable has on service provider's usage and adherence levels to parenting programs.

Staff attributes. Service providers' individual characteristics have an important impact on program implementation. The Blueprints Initiative found that service provider motivation and buy-in were crucial to program survival and program success was promoted by staff that had high morale, influence with other staff and good communication skills (Mihalic et al., 2004). The initiative also found that having staff with the requisite skills, experience, and credentials

enhanced implementation quality (Mihalic et al., 2004). Sites that hired less experienced staff showed slower progress in training sessions and had higher rates of staff turnover (Mihalic et al., 2004). Another important staff characteristic for implementing a new program is the ability to cope with change. Positive self-concept (including openness to experience) has been found to significantly predict ability to cope with organizational change (Judge, Thoresen, Pucik, & Welbourne, 1999). Staff attributes are often measured using self-report measures, focus groups and interviews, observations of sessions and videotapes of sessions. Service providers offering interventions to children and families have been found to report high levels of confidence in their clinical efficacy but are slow to make changes to their clinical practice (Barwick et al., 2005). Service providers' low levels of confidence delivering a parenting program and difficulty incorporating the program into their workload have been found to negatively affect program usage (Sanders et al., 2009). These findings were based on service providers' self-reports. The perspectives of how other stakeholders, including managers, perceive the effects staff attributes have on the implementation of evidence-based parenting programs have not yet been investigated.

Training and ongoing support. Amount and quality of these two factors have been found to be important correlates of successful implementation (Gottfredson et al., 2000; Joyce & Showers, 2002). Ongoing support and consultation are as important as initial training prior to implementation (Salas & Cannon-Bowers, 2001). A lack of contact between program developers and service providers can undermine implementation quality (Graczyk, Domitrovich, & Zins, 2003). The Blueprints Initiative found that with certain of their programs, program developers tended to wait until they were notified of implementation problems before providing assistance to sites (Elliott & Mihalic, 2004). This delay in contact set back the full implementation of

certain programs at several sites and consequently the researchers recommend ongoing contact between sites and program developers (Elliott & Mihalic, 2004). Ongoing training provides an opportunity to practice new skills, discuss concerns with service delivery, and receive feedback (Fixsen et al., 2005). Ongoing training and support has been measured by interviewing and administering self-report measures to service providers and administrators. With regards to parenting programs, service providers who reported adequate training were more likely to report using the program (Sanders et al., 2009). Next steps include examining the association between training and how well service providers deliver evidence-based parenting programs and whether other stakeholders agree or disagree with service providers' reports of training needs.

Supervision. Program champions play an important role in the adoption and the continued implementation of a program (Fixsen et al., 2005). A program champion can be defined as someone who motivates and encourages other staff to use the program, guides its daily operations, and encourages support and communication (Mihalic et al., 2004). A program champion is usually a coordinator or supervisor because she needs to have enough power in the organization to influence decisions, but simultaneously needs to have a close relationship with the service providers (Mihalic et al., 2004). Supervisors' leadership and support have been identified as facilitating factors for implementing new programs (Roman & Johnson, 2002; Whitley, Gingerich, Lutz, & Mueser, 2009) and supervisors' focus on program adherence has been found to predict greater therapist adherence (Schoenwald, Sheidow, & Chapman, 2009). In the Blueprints Initiative, sites with strong program champions experienced fewer implementation problems (Mihalic et al., 2004). Supervision has been examined using self-report measures, focus groups, and interviews. Qualitative data from a pilot study of 14 service providers delivering a parenting program indicated that ongoing supervision facilitated program adherence

(Stern et al., 2008). These findings need to be replicated with a larger sample and using a psychometrically sound measure.

As can be seen, there is a large amount of evidence that suggests that organizational climate, adequate resources, staff attributes, training and supervision impact the implementation of programs. Preliminary findings from a limited number of studies indicate that it is likely these variables also impact the implementation of evidence-based parenting programs. As a next step, we need to build on these findings with a larger sample of respondents from community agencies, include all of the variables of interest, use psychometrically sound measures, and consider different stakeholders' perspectives.

Multiple perspectives

The vast majority of implementation research on interventions for children and families only examines reports from one type of respondent, usually the service providers (e.g., Sanders, Prinz, & Shapiro, 2009) or occasionally the administrators (e.g., Klimes-Dougan, August, Lee, Realmuto, Bloomquist, Horowitz, et al., 2009). Preliminary results however suggest the importance of incorporating multiple stakeholders' reports (Aarons, Wells, Zagursky, Fettes, & Palinkas, 2009). Collecting data from more than one type of respondent could provide additional information about the variables that affect implementation in order to provide a richer picture of the implementation process (Ploeg, Davis, Edwards, Gifford, & Miller, 2007; Zazzali et al., 2008).

In one of the few studies that considered the reports of different types of respondents in children's mental health agencies, Children's Mental Health Ontario examined the perspectives of executive directors and their clinical staff regarding the implementation of evidence-based services (Barwick et al., 2005). Although both groups agreed on the strength of training needs,

they differed on the particular type of training required. Moreover, executive directors reported higher needs for program improvements such as obtaining evidence of program effectiveness and treatment outcomes (Barwick et al., 2005). The evidence-based programs inquired about included some parenting interventions, but also included programs delivered directly to children and youth. The findings were not reported separately for the parenting interventions. These results provide preliminary support for considering multiple perspectives when examining implementation variables. The next step would be to explore these factors uniquely in the context of parenting interventions and to include measures of implementation, including program adherence.

Program Adherence

Program adherence is the extent to which program components were delivered as indicated in the manuals (Dane & Schneider, 1998) and is the most commonly studied measure of implementation fidelity (Durlak & DuPre, 2008). Meta-analyses have shown that programs implemented with higher adherence produce better outcomes (Gresham, Cohen, Rosenblum, Gansle, & Noell, 1993; Wilson & Lipsey, 2000). As previously noted, program developers have acknowledged the importance of flexible delivery formats to meet client needs, but maintain that the program offered in real-life settings must remain the same as originally developed and tested (i.e., high levels of adherence must be maintained; Beidas et al., 2010; Sanders, 2010; Webster-Stratton & Herman, 2010). Ongoing session monitoring, supervision, and group leader qualities have been found to be key contributors to adherence (Stern et al., 2008). The Blueprints Initiative found that the five implementation variables (organizational climate, adequacy of resources, staff attributes, training and technical assistance, and supervision) were associated with measures of implementation success including adherence (Mihalic & Irwin, 2003). However, the effect these

variables have on adherence specifically to evidence-based parenting programs in community agencies without ongoing technical support from implementation initiatives has yet to be examined. A good understanding of whether trained service providers apply evidence-based parenting interventions, whether they adhere to program components and the reasons why service providers omit program components would provide valuable information to agency administrators and program developers.

Implementation Research on Triple P

As noted earlier, a large body of Triple P outcome research has been conducted in Australia. However, there has been much less research on the implementation of the program. Furthermore, the majority of these published reports have described Australian samples. An exception to this is the population-level implementation of Triple P in South Carolina by Prinz and colleagues. As previously mentioned, the Triple P System Population Trial included the systematic wide scale adoption of the program (Prinz et al., 2009). Over 600 service providers were trained in the different levels and were supplied with the necessary material to implement Triple P. Using data from these service providers, Seng, Prinz, and Sanders (2006) explored program fit, work environment, client management barriers and their association with training completion and program implementation. Providers' use of the program was assessed six months after initial training. Overall, 83.7% of the providers completed training and of those 67.6% were using Triple P six months later. One third of the service providers who completed training did not use Triple P. The authors concluded that it should be expected that participants in training will encounter a range of organizational and other barriers to the completion of training and to the use of the program (such as insufficient access to supervision, reportedly not having adequate skills, and lack of recognition from the workplace). To ensure effective dissemination of a

program, these barriers need to be addressed. Seng et al.'s findings highlight the importance of ensuring that service providers complete the entire training for an evidence-based program to ensure successful implementation, to maximize an agency's return for investment in training, to increase service providers' competency, and to strengthen program adherence. These results emphasize the importance of the organizational climate, staff attributes, training variables, and supervision for the implementation of Triple P. However, as there are no reported data on the scale used to assess these factors, the robustness of the findings is unknown.

In a subsequent publication, Sanders et al. (2009) described structured follow-up interviews conducted with the same service providers from the Triple P System Population Trial. These interviews, which assessed barriers to program use, were carried out six months after training. Service providers were asked to rate various statements to assess how much of a facilitator or obstacle they considered each to be. As described in Seng et al. (2006), 37% of trained service providers reported not having used the program despite widespread training opportunities and adequate funding. Obstacles included having lower levels of confidence delivering Triple P, difficulty incorporating the program into their work, and low workplace support. Because the Triple P System Population Trial was the first study to examine predictors of Triple P use, the authors described it as exploratory and highlighted the importance of empirical data in examining factors that are associated with program use. As noted by the authors, one limitation of this study is the reliance on service providers as the sole informants. Moreover, although service providers were categorized as program users or non-users, there were no data on the quality of the program delivery or adherence. The findings from these studies are an important step in bridging the gap between efficacy trials and clinical practice.

In an unpublished doctoral dissertation, 1000 Australian professionals trained in Primary Care Triple P were questioned about barriers to delivering the program (Turner, 2003). Many of the barriers reported by the primary care staff were related to the post-training work environment such as integration of the program with their regular caseload, access to supervision, and ability to schedule after-hours appointments. Another study also examined general practitioners and family physicians trained in Primary Care Triple P (Sanders, Murphy-Brennan, & McAuliffe, 2003). Training was associated with practitioners' greater satisfaction with their consultation skills and high levels of satisfaction with the training program. Rates of subsequent program implementation and perceived barriers were not reported.

Finally, Dean, Myors, and Evans (2003) described the process of training professionals and implementing Level 4 Triple P. The authors specified techniques that were rated as particularly helpful by the service providers, including offering workshops to help overcome problems in facilitating groups and to promote networking among service providers, encouraging service providers to have a co-facilitator for their first two groups (to assist inexperienced service providers gain confidence and skills), the provision of a coordinator who worked with management to develop administrative and planning systems in order to enhance the sustainability of the program, and a central booking system for the geographic region.

Overall, there have been preliminary studies providing data on implementation factors related to Triple P. These have predominantly focused on some organizational variables, staff attributes, and training. Building on these findings, all five of the previously mentioned variables that affect implementation need to be examined in relation to Triple P. Moreover, the findings from service providers need to be expanded to include the perspectives of supervisors and administrators.

Program maintenance recommendations. The developers of Triple P have made extensive recommendations consistent with findings in evaluation research articles (e.g., Sanders & Murphy-Brennan, 2010; Sanders & Turner, 2005; Sanders, Turner, Markie-Dadds, 2002; Turner & Sanders, 2006b). To date, these suggestions have not been empirically evaluated. The main recommendations for program maintenance include providing a support structure to encourage program adherence and the continued use of the program, peer supervision networks, self-monitoring and the use of personal goal setting, keeping proper documentation of decision making processes, celebrating staff success in implementation, and informing program developers of implementation difficulties or any additional needs (Sanders, 2008a; Sanders & Turner, 2005; Sanders et al., 2002; Turner & Sanders, 2006b). These recommendations indicate that the developers recognize the importance of certain implementation components, particularly organizational variables, staff attributes, and training. These recommendations are based on years of experience in implementing Triple P in diverse communities; however there have been no empirical analyses to determine the importance of each recommendation. Other than the Triple P System Population Trial in North Carolina, there have not been any other published reports on the implementation of Triple P in countries other than Australia. Therefore, it is important to gather empirical support for these recommendations and to expand previous findings by examining the large scale implementation of the program in countries in which the program developers are not actively involved in the dissemination project.

Triple P in Ontario

Triple P has been adopted by agencies in many Canadian provinces, including in Manitoba, British Columbia, and Ontario (Canadian Mental Health Association, 2008). The provincial government in Manitoba has funded a province-wide implementation of the program

and a governmental branch manages this process. In contrast to this top-down approach of program adoption, Ontario has most often taken a bottom-up approach and numerous individual agencies across the province have implemented Triple P to varying degrees. For example, they have training in different levels and may have more or less service providers offering the program. Agencies from regions across the province, including the South West, North, East, Central East, South East, and North East are implementing Triple P (Centre for Excellence in Child and Youth Mental Health at the Children's Hospital of Eastern Ontario communication portal, May 2011). Although these agencies are aware of how many of their service providers have been formally trained and accredited by Triple P, many are unsure about how many of these service providers are putting the program into practice, which levels are being offered, and which populations are being served. It is also unknown how well service providers are implementing Triple P, and reasons for omitting program components. Moreover, group discussions conducted with several agencies using Triple P prior to the development of the current study revealed that many of them believed they were having difficulties with implementation issues and did not have the perceived supports to manage these. As of yet, there are no published reports on the implementation of Triple P with Canadian populations to guide Canadian agencies.

The Current Study

The current study was designed to examine the implementation of an evidence-based program in community agencies. Although variables affecting implementation have been identified for several intervention programs, there have been few studies examining them with respect to evidence-based parenting programs. Recommendations for agencies considering implementing these programs, including Triple P, have consequently been made based on years of professional experience rather than on empirical findings. To date there have been few

published large scale implementation evaluations of evidence-based parenting programs. Because of its large evidence base and its dissemination across broad practice communities, Triple P has been identified by other researchers as an ideal program in which to examine implementation issues with (Forehand et al., 2010). A South Carolina trial examined some implementation factors, however the authors did not address program adherence or consider administrators' perspectives. Moreover, the South Carolina program involved implementation of Triple P using an organized and highly funded top-down approach. As noted earlier, in Ontario the adoption of Triple P has been mostly a bottom-up approach in which agencies have decided to adopt the program on their own. It is reasonable to hypothesize that the implementation of a program via a top-down versus bottom-up approach will encounter different obstacles. In a bottom-up approach, there may be a lack of administrative and community support networks or adequate funding resources. Or alternatively, there may be stronger local support, and higher levels of service provider motivation and responsibility (Ogden et al., 2009). Before we can make recommendations to increase the implementation of evidence-based parenting programs and their sustained use, we must have an accurate understanding of how many service providers in community settings are presently using them and the extent to which they are adhering to the program components.

Goals of the Current Study

The current study was designed to be a preliminary examination of the use of and adherence to an evidence-based parenting program, Triple P, in community agencies across Ontario. In order to have an understanding of how the program was being implemented, I examined usage and adherence rates and whether these differed for agencies that adopted Triple P using a top-down versus a bottom-up approach. I also explored reasons for which service

providers omitted program components. Additional goals of the study were based on the research conducted on key variables that affect program implementation. I hypothesized that reported positive organizational climate, adequate office resources, positive staff characteristics, low training needs and adequate supervision as reported by administrators, supervisors, and service providers would be associated with higher self-reported adherence to and usage of Triple P. I also hypothesized that there would be a difference in reports provided by service providers, supervisors, and managers with regards to these variables. Provided there is a difference in perspectives, I hypothesized that the larger this discrepancy, the lower self-report adherence and usage rates would be.

The findings are presented in two articles. In the first, I examined: 1) administrators' reports of the way adoption of Triple P was initiated, 2) the percentage of Triple P trained service providers using the program in community agencies, 3) the level of adherence with which service providers deliver the program, 4) whether program usage and adherence were affected by the way Triple P was initiated, and 5) service providers' reasons for not adhering to the program's components. Findings related to these questions are reported in Asgary-Eden and Lee (2011). Next, I examined whether 1) the ratings of different variables (organizational climate, office resources, staff characteristics, training needs, and supervision) by administrators, supervisors, and service providers differed, 2) reported variables were associated with agency-level usage and adherence 3) greater discrepancies in stakeholders' reports within agencies were associated with lower agency-level usage and adherence, and 4) whether a given service provider's perception impacted their own usage and adherence levels. Results of these analyses are presented in Asgary-Eden and Lee (in press).

Article One

So Now We've Picked an Evidence-Based Program, What's Next? Perspectives of
Service Providers and Administrators *

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Abstract

In recent decades, psychologists have been actively involved in the development and evaluation of parenting programs and are now turning their attention to the implementation of these evidence-based programs in real-world contexts. In the current study, we examined administrators' reasons for adopting an evidence-based parenting program and service providers' use of and adherence to this program in community agencies. Surveys were completed on-line by 63 administrators and 215 service providers from 69 different agencies. Although the majority of trained service providers used the program, a significant minority (25.6%) had not delivered it since completing training. The average adherence rate reported by the service providers who used the program was 85.9%; the most common explanations provided for omitting session objectives were that they did not have enough time in session and because they did not consider the activities relevant for the parents they were seeing. Implications and suggestions for psychologists involved in the implementation of parenting programs are discussed.

Keywords: Implementation, parenting program, usage, adherence, adoption

So Now We've Picked an Evidence-Based Program, What's Next? Perspectives of Service Providers and Administrators

Psychologists have played a key role in the development and evaluation of evidence-based parenting programs (De Los Reyes & Kazdin, 2009) and are now engaged in training, consulting, and supervising their implementation in community agencies (Fixsen, Blase, Duda, Naoom, & Van Dyke, 2010). A better grasp of the process of implementation of evidence-based programs will enable psychologists to facilitate their widespread adoption.

There is growing research that demonstrates that evidence-based interventions for children and families can be effectively delivered in community settings (Hunsley & Lee, 2007). However, although treatment guidelines for disruptive behavior disorders recommend parenting programs (American Psychological Association, 2009; National Institute for Health and Clinical Excellence, 2009; National Research Council and Institute of Medicine, 2009; World Health Organization, 2009), they have not yet been widely adopted by community service providers (Weisz & Kazdin, 2010). Now that we know that evidence-based parenting programs work significantly better than does treatment as usual (Weisz, Jensen-Doss, & Hawley, 2006), it is clear that psychologists must play a role in ensuring that these programs are offered to families. Psychologists are in a unique position to advocate for the use of evidence-based interventions and should be at the forefront of their implementation given their skills in training, consultation, research, and communication (Gotham, 2006; Jensen-Doss, Hawley, Lopez, & Osterberg, 2009; Steinfeld, Coffman, & Keyes, 2009).

Program Implementation

Psychologists are concerned with identifying factors that affect the real-world application of efficacious treatments (Greenhalgh, Robert, MacFarlane, Bate, & Kyriakidou, 2004). An

understanding of the implementation process increases the likelihood that programs will be delivered with high adherence to the way they were originally designed and tested in efficacy trials (Elliott & Mihalic, 2004). Initially, program developers made suggestions for implementation practices based on their experience and drawing on research from other fields including business and organizational behavior (Sanders & Turner, 2005; Webster-Stratton, 2006). More recently, studies on mental health services for youth and families have investigated the effect of organizational factors and service providers' beliefs on program implementation (e.g., Aarons, Sommerfeld, & Walrath-Greene, 2009). For example, in a large scale population trial of Triple P- Positive Parenting Program, almost two thirds of the service providers who had been trained had delivered Triple P (Sanders, Prinz, & Shapiro, 2009). Compared to users of the program, trained service providers who did not use the program were more likely to report that they encountered obstacles including low confidence delivering Triple P, difficulty incorporating the program into their work, and low workplace support.

To date, studies of implementation have focused largely on the perspectives of service providers. Because there is preliminary evidence that others involved in the program identify different barriers to implementing evidence-based programs (Aarons, Wells, Zagursky, Fettes, & Palinkas, 2009), it is important to assess the perspectives program administrators.

Program Adherence

Program adherence is the extent to which program components are delivered according to the protocols indicated in the program manuals (Dane & Schneider, 1998) and is the most commonly studied measure of implementation (Durlak & DuPre, 2008). Programs for youth with behavioral problems implemented with higher adherence produce better outcomes than do those with lower adherence (Elliott & Mihalic, 2004). Adherence rates in well-funded randomized

trials of parenting programs range from 81%-100% (Fagan, Hanson, Hawkins, & Arthur, 2008). Self-report adherence data have been successfully collected electronically across multiple sites (Lee, August, Realmuto, Horowitz, Bloomquist, & Klimes-Dougan, 2008) and correspond highly with the more expensive, time-consuming, and intrusive strategy of observing sessions (Fagan et al., 2008). However, because this field is in its infancy, the quality of implementation has been addressed in only a minority of studies (Perepletchikova, Hilt, Chereji, & Kazdin, 2009) and there are very few published findings on validated adherence measures for parenting programs (Fagan et al., 2008; Forgatch, Patterson, & DeGarmo, 2005).

There is a need to balance strict adherence to an evidence-based program's protocol and the need to tailor the protocol to meet individual clients' needs (Kendall & Beidas, 2007). On the one hand, there is a danger of substantial "program drifts" whereby program effectiveness is decreased as a result of changes to an original program (Elliott & Mihalic, 2004; Webster-Stratton & Herman, 2010); on the other hand, there is a danger that efficacious programs will not be adopted or will be abandoned if they are perceived to be too rigid and unsuited to the needs of a particular clientele. Program developers therefore advocate that the original program content be retained, allowing for modifications to the way the program is delivered in real-world settings by using a flexible format to meet the needs of clients (Webster-Stratton & Herman, 2010). For example, acceptable modifications to the Triple P program include lengthening sessions and using relevant examples to tailor the material for individual parents while simultaneously maintaining adherence to the program protocol (Sanders, 2010).

In summary, in recent decades psychologists have been actively involved in the development and evaluation of evidence-based parenting interventions. Now that there is ample evidence that parenting programs work, we need to turn our attention to factors that are

associated with their successful uptake in community settings. Before psychologists can make recommendations to increase their implementation and sustained use, we must have an accurate understanding of how many service providers in community settings are presently using them and whether they are adhering to the program components. Preliminary studies have examined the implementation and use of parenting programs across multiple sites, mostly by assessing service providers' reports. These were most often well-funded organized research trials with ongoing financial support and assistance with coordination from researchers and program developers. Organizations that have independently initiated the adoption of evidence-based programs may encounter distinct challenges. It is unknown whether this is associated with different patterns of program use than organizations that participate in well-funded research trials. For example, strained resources may lead to the omission of material such as handbooks; service providers may leave out components of a program, such as follow-up calls or role-plays, because participants do not enjoy completing them (Stern, Alaggia, Watson, & Morton, 2008). Having a good understanding of whether trained service providers apply evidence-based parenting interventions, whether they adhere to program components and the reasons why service providers omit program components would allow program developers to recommend modifications. Real-world data on service providers, agency operations, and the content of services for children and families would allow program implementers and researchers to be able to anticipate implementation challenges (Hoagwood & Kolko, 2009) and for psychologists to make appropriate suggestions. Results from this study will inform psychologists about average usage and adherence rates in community agencies as well as areas to target to increase adherence to treatment protocol.

The Current Study

The current study was designed to be a preliminary assessment of use of and adherence to Triple P (Sanders, 1999) across diverse agencies in the province of Ontario. Adoption of evidence-based programs for youth and families may be initiated in different ways. In “top-down” initiatives, government funders or researchers decide that agencies will deliver a specific evidence-based program); “bottom-up” initiatives occur when agencies identify a problem and adopt a program of their choice (Ogden, Hagen, Askeland, & Christensen, 2009). In Ontario, some agencies were asked by the provincial ministry to use the program because of its evidence-base and flexible delivery format, whereas others chose to use it on their own. The ministry did not give any direction on how they wanted the program to be implemented. In this study, we explored: 1) administrators’ reports of the way adoption of Triple P was initiated, 2) the percentage of Triple P trained service providers using the program in community agencies, 3) the level of adherence with which service providers deliver the program, 4) whether the initiatives for adopting Triple P are associated with program use and adherence, and 5) service providers’ reasons for not adhering to the program’s components.

Method

Intervention

Triple P – Positive Parenting Program is a multi-level suite of parenting interventions designed to reduce emotional and behavioral problems in children by providing parents with tools to increase their knowledge, skills, and confidence in parenting (Sanders, 1999). The multi-level strategy was devised to address differing levels of problematic child behavior as well as to meet parental preferences regarding the type, intensity, and mode of intervention (Sanders, 2008). Triple P programs are designed to minimize the length of services and the associated costs by operating on the principle of minimal sufficiency. The program is delivered in different

modalities that adapt the intensity of the intervention to each individual family's needs, ranging from broad media campaigns (Level 1) to specific behavioral family interventions for individual parents and groups (Levels 4 and 5). In this study we examined agencies with service providers trained in Levels 4 and 5 for parents of school-aged children to ensure homogeneity of problem severity. Meta-analyses have established that Triple P is associated with positive changes in parenting skills, child behavior problems, and parental well-being (de Graaf, Speetjens, Smit, de Wolff, & Tavecchio, 2008; Nowak & Heinrichs, 2008; Thomas & Zimmer-Gembeck, 2007).

Triple P has a standardized training and quality-promotion protocol. Service providers receive training from qualified external trainers by attending a 2-3 day training course (depending on level), review and study intervention material independently, attend a day-long competency and feedback session, and complete accreditation requirements (www.triplep.net).

Participants

We collected data on administrators and service providers. Administrators were defined as those managing the part of the organization in which Triple P was offered and who had authority to make changes in budgets, structures, and personnel. Only one administrator per agency completed the survey. Service providers were defined as front line practitioners who had completed training in Triple P Levels 4 or 5 for school-aged children.

Service providers were counselors or therapists (34.9%), social workers (26.5%), parent educators or family literacy workers (11.2%), childcare staff (11.2%), nurses (9.3%), or other (7.0%). Among service providers, some had delivered Triple P to parents after having been trained whereas others had not (i.e., "users" and "nonusers"). Service providers had worked with Triple P on average for 18 months ($SD = 14.26$). Almost half (47.3%) of the service providers

completed the survey within a month of their most recent session and close to a quarter (23.6%) did the survey within a week of their most recent session.

Of the 75 eligible administrators contacted by phone, 70 (93.3%) agreed to participate and 65 completed the study, yielding a participation rate for administrators of 86.7%. Sixty administrators provided data on the number of trained service providers in their agencies; five administrators did not have access to this information. Two-hundred forty-one service providers completed the survey yielding a service provider response rate of 60.6%. Data cleaning procedures were conducted. The final dataset contained responses from 63 administrators and 215 service providers from 69 different agencies.

Procedure

Lists of agencies with service providers trained in Triple P were obtained from the Provincial Centre of Excellence for Child and Youth Mental Health and from the program developers who administered training. The names of additional agencies were obtained through word of mouth.

Following an email to administrators introducing the study, we phoned to explain the study in greater detail, answer any questions, and invite administrators to participate in the study. Over a 6 month period, we were successful in reaching 75 of the 81 administrators (92.6%) on our list. Six administrators did not respond to repeated calls and emails. We sent a study notice with a link to the online survey to the 70 administrators who agreed to participate; we asked administrators to complete the survey and also to forward the notice and the study link to service providers in their agency. We allowed administrators to act as study gatekeepers for service providers to respect agencies' concerns to maintain the confidentiality of service providers' contact information. To maximize the response rates, the survey was designed to take no longer

than 15 minutes to complete. Approximately two weeks after the first email to administrators, a reminder email was sent. This project was approved by the university's Social Sciences and Humanities Human Research Ethics Committee.

Adoption of Triple P and Pre-Implementation Planning

To explore adoption of Triple P and pre-implementation planning information, we modified four questions developed by Mihalic and Irwin (2003) to relate the items to Triple P. Items are shown in the Appendix. The first question required administrators to identify one of four descriptions that best fit their agency. The next three questions focused on resistance, readiness, and openness, requiring responses on a 5-point Likert type scale.

Program Adherence

Very few published findings are available on the validation of quantitative adherence measures (Fagan et al., 2008; Stern et al., 2008) and there are not currently any validated adherence measures for Triple P. We therefore, assessed program adherence using the session-specific checklists provided in service providers' Triple P manuals (Sanders, Markie-Dadds, & Turner, 1998, 2000; Turner, Markie-Dadds, & Sanders, 1997). Service providers were asked to recall the most recent session they offered and indicate whether or not each session objective was taught. To enhance accuracy, they were asked to refer to their session notes or session checklists which were completed during or shortly after the session. The adherence score was calculated as the percentage of objectives taught divided by the number of objectives (Fagan et al. 2008). Service providers were asked to provide the reason for omitting session objectives from among 10 response options (see Table 1).

Results

As there was more than one service provider per agency, mean agency scores were calculated (Glisson & Hemmelgarn, 1998). The agency program usage score was the percentage of trained service providers in each agency who reported using the program. Mean agency adherence scores were also calculated.

Adoption of Triple P

The majority of administrators ($n = 42$, 66.7%) reported that the initiative occurred from the bottom-up, in that the agency selected Triple P and applied for funding to implement the program. Among the minority of administrators ($n = 16$, 25.4%) reporting a top-down initiative in which a government funder selected Triple P, less than a third ($n = 5$) reported that they passively acquiesced or reluctantly agreed to adopt Triple P. Data were missing for five administrators. It is clear therefore, that overall this sample of administrators reported that their agency was supportive of the decision to initiate Triple P in their agencies.

To evaluate whether the agencies' readiness, openness and resistance to implementation differed according to the type of initiative, two-way cross-tabulation analyses were performed. To dichotomize pre-implementation readiness, responses *not ready* and *a little ready* were classified as "not ready" ($n = 30$, 47.6%), whereas *somewhat ready*, *moderately ready*, and *very ready* were classified as "ready" ($n = 29$, 46%). Data were missing for four agencies. To dichotomize openness to new ideas, *not open* and *a little open* were categorized as "not open" ($n = 2$, 3.2%), whereas *somewhat open*, *moderately open* and *very open* were categorized as "open" ($n = 58$, 92.0%). Data were missing for three agencies. A lack of variability in ratings of openness precluded analyses on this variable. Lastly, to dichotomize resistance, *no resistance* and *a little resistance* were classified as "no resistance" ($n = 25$, 39.7%), whereas *some*

resistance, moderate resistance, and a great deal of resistance were classified as “resistance” ($n = 33, 52.3\%$). Data were missing for five agencies. Chi-square analyses revealed no significant differences between types of agencies in terms of their pre-implementation readiness or resistance.

Program Users and Nonusers

Of the 215 trained service providers who completed the survey, 150 (69.8%) had delivered the program and 55 (25.6%) had not. Data were missing for 10 (4.6%) service providers. An independent samples *t*-test indicated no differences between agencies with top-down ($M = 70.87, SD = 33.73$) and bottom-up ($M = 76.71, SD = 34.20$) initiatives in terms of agency program usage.

Program Adherence

Adherence scores for the most recent session offered were calculated for each of the 148 service providers who had used the program. Adherence data were missing for two service providers. Adherence percentages ranged from 33% to 100%, with a mean percentage of 85.9% ($SD = 16.7$). Fifty-five service providers (37.2%) had adherence scores of 100%. Number of months of experience with Triple P was unrelated to adherence scores. There were no significant differences between mean agency adherence rates for service providers from bottom-up initiation agencies ($M = 86.04, SD = 11.38$) and top-down initiation agencies ($M = 87.82, SD = 8.63$).

Reasons for Non-Adherence

Service providers who had used Triple P and had adherence scores below 100% ($n = 93$) were asked to indicate the reasons for which they omitted session objectives (Table 1). The most common reasons for not adhering to the program objectives were insufficient time in session and lack of relevance for the particular parents.

Discussion

In this preliminary study, we examined the adoption of an evidence-based parenting program in community agencies. Although there has been some research on large-scale implementation trials of parenting programs (e.g., Fagan et al., 2008; Sanders et al., 2009) less is known about the reasons for adopting these programs, actual use, and adherence rates in community agencies.

The majority of participants in this study were service providers and administrators from agencies in which the decision to adopt the Triple P parenting program was a local one (bottom-up initiative); a minority of participants worked in agencies which had been instructed by provincial ministries to adopt Triple P (top-down initiative). Overall participants were from agencies that were supportive of the decision to adopt the program, regardless of whether it was a bottom-up or a top-down initiative and only a small minority of agencies reluctantly accepted.

Regardless of the source of the initiative to implement Triple P, administrators described some resistance from key parties (such as service providers and administrative assistants) prior to implementation but nevertheless reported staff openness to new ideas. This suggests that even when staff are open to discussing new ideas, when the time comes to actually implement behavioral change, they may express resistance as they meet unforeseen challenges. Based on administrators' responses to the question regarding the reasons for adopting the program, we found that agencies with top-down initiatives did not experience less readiness or more resistance than did agencies with bottom-up initiatives. However, it must be noted that given the sample size, we only had sufficient power to detect large differences and consequently smaller differences between agencies with top-down and bottom-up initiatives may have gone

undetected. Additionally, agencies were classified based on the response to an individual question and consequently psychometric data were not available. Although the initial decision to adopt Triple P was classified as a top-down or bottom-up initiative, the actual implementation process may have nevertheless been flexible and inclusive of all staff regardless of the reason for adoption. Confirmation of these preliminary findings with larger samples and with a more extensive measurement system to classify agencies might help allay worries that initiatives from outside the agency encounter more resistance than do those that have been developed within an agency.

Another important finding from this study is that the majority of the service providers trained in Triple P were delivering the program, but a significant minority (25.6%) reported that they had not used the program since being trained. These rates of use are slightly higher than those found in a large-scale randomized trial of Triple P in which 37% of trained service providers did not use the program (Sanders et al., 2009). In future studies, it will be important to explore service providers' reasons for not offering the program in agencies with top-down and bottom-up initiatives. It is a cost to the agency for a service provider to be trained, then not to offer Triple P. However, as there are many possible reasons for this (for instance, they did not have the opportunity, they used another evidence-based parenting program, they delivered services as usual, they had not worked with parents since training) the extent of the cost is unknown. Initial findings suggest that "communities of practice" among service providers help promote the use of evidence-base practices (Barwick, Peters, & Boydell, 2009) and as a result optimize the benefits of training.

Among service providers, the mean adherence rate was 85.9%; over a third of the participants reported adherence scores of 100%. Therefore, for the most part service providers

reported that they were delivering the program as intended. These figures are similar to initial findings from a study of 14 service providers in community agencies providing a different evidence-based parenting program (Stern et al., 2008). The adherence rates of service providers not involved in research trials suggest a slightly lower average than those in randomized controlled trials of parenting programs (Fagan et al., 2008). One possible explanation for this finding is that service providers not involved in a funded research trial may not receive the same quantity or intensity of supervision and their adherence to the program may not be monitored as intensely as those in organized trials. In addition, we did not find an association between the amount of experience with Triple P and adherence. This finding suggests that service providers with relatively little experience are able to deliver the components of the parenting programs in which they have been trained. Alternatively, it is possible that less experienced service providers evaluated their adherence to components differently than did more experienced service providers.

Even though the overall high adherence rates are encouraging, it is important to know the reasons why service providers in the community omit required components of the session. The most common explanation service providers endorsed for omitting session objectives was that they did not have enough time in session or because they thought that the activities were not relevant for the particular parents. It is possible that service providers who report not having enough time may work with more challenging populations or alternatively, they may have more difficulty being directive with parents and may not be as skilled at presenting particular material to specific types of parents. Future research is required to explore the differences between service providers who manage to cover all of the activities in a session and those who do not in terms of populations served and clinical skills. Understanding these differences would allow us

to modify program formats, focus on certain concepts during training, and provide appropriate supervision and support. Psychologists involved in training and supervision should focus on how to ensure that all the objectives are covered in each session and address service providers' reasons for omitting objectives.

In interpreting the results of this preliminary study, it is important to remember that the sample of service providers who completed the survey may under-represent the number of trained service providers who did not use the program. Previous results suggest that service providers less likely to use a parenting program have lower levels of confidence delivering the program and consulting with parents and have difficulties incorporating the program into their workload (Sanders et al., 2009). Psychologists acting as supervisors and consultants should concentrate on increasing service providers' understanding and mastery of the skills needed to deliver parenting programs and may advocate for modifications in workloads to promote the use of the program.

It should also be borne in mind that adherence rates were based on retrospective self-reports. Although this was a cost-efficient and nonintrusive manner of collecting data from numerous geographically dispersed sites, it is not possible to determine the accuracy of the ratings (C.-Y. S. Lee et al., 2008). Observational ratings were not available for comparison because of the large number of agencies spread across the province. Nevertheless, participants were instructed to refer to their session checklist or session notes while completing the adherence measure and were asked to be as honest as possible to increase accurate recall. Moreover, as previously noted, self-reported adherence has been found to be highly associated with observational ratings (Fagan et al., 2008). Further replication of these results is necessary. Unfortunately there are very few published findings on the validation of quantitative adherence

measures (Fagan et al., 2008; Stern et al., 2008) and as of yet, this information is not available for the Triple P program. The validation of adherence measures is a necessary line of research to ensure study results are valid and quality of implementation is accurately assessed (Forgatch et al., 2005).

Findings from this study have several important implications. First, they suggest that despite choosing to adopt a parenting program and being ready for implementation, agencies still encountered some resistance. It is well known that organizational change requires adaptation (Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005). Psychologists involved in the implementation process, either as consultants, administrators, or clinicians, should expect some resistance and be ready to address concerns. The Institute for Healthcare Improvement provides a framework for sustainable system-level change in healthcare settings which includes setting targets, developing projects to meet goals, using appropriate resources, and conducting problem-solving review sessions (Nolan, 2007). Frameworks such as this one can be used by psychologists to guide program evaluations and quality improvement exercises. On a more individual level, psychologists can reduce resistance by organizing and leading pre-implementation focus groups, information sessions, or informal drop-in times. Just as individual clients may find behavioral change a challenge, so too do agencies. Psychologists have well developed skills in helping clients to anticipate factors that could interfere with the completion of an assigned task. These skills can apply equally to the agencies with which we work. Anticipating, acknowledging, and allowing for resistance may be valuable strategies in helping agencies to persist in their implementation efforts.

Our data also indicate that a considerable proportion of agencies (49%) described themselves as not being ready prior to implementation. Psychologists can increase preparedness

by seeking and applying for adequate funding, acquiring the necessary material and space for providing a parenting program, setting up supervision and peer support networks, introducing new clinical concepts and research findings to service providers prior to official training, and establishing evaluation frameworks. To maximize the appropriate use of resources, psychologists can be involved in selecting suitable candidates to receive training and minimize unnecessary training costs. Additionally, they can foster a sense of pride and accomplishment for the successful implementation of a parenting program among service providers to increase their rates of use. This can be done by providing outcome data on the reduction of behavioral problems in children and inappropriate parenting practices among the population served by the agency. They can also encourage program use and adherence among trained service providers by giving workshops on clinical skills, providing research updates on evidence-based practice, and offering supervision to address difficulties. As psychologists, we have the ability and responsibility to promote evidence-based parenting programs and facilitate their successful implementation in order to effectively serve the children and families in our communities.

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Table 1

Service Providers' Reasons for Omitting Session Objectives

	Frequency % (<i>n</i> = 93)
Not enough time in session	35 (37.6%)
Thought activity was not relevant for particular parents	30 (32.3%)
Forgot to do the activity	11 (11.8%)
Found that the activity did not help parents in the past	7 (7.5%)
Did not have the necessary material	7 (7.5%)
Parents were not comfortable doing the activity	5 (5.4%)
Did not think parents would understand the activity	5 (5.4%)
Service provider was not comfortable doing the activity	3 (3.2%)
Did not feel trained well enough	2 (2.2%)
Supervisor instructed not to do activity	0 (0.0%)

Note. The total percentage is >100% because service providers were able to endorse more than one reason for omitting objectives.

Appendix

Adoption of Triple P and Pre-Implementation Planning Questions

1. What was the primary motivation for adopting Triple P (please choose one)?

a) Local identification of a problem that could be addressed by Triple P; local officials sought external funding for it.

b) Local officials applied for funding. The specific program implemented did not really matter (even though the program may have addressed an important problem); it was the availability of funding that was most important.

c) An external agency asked local officials to implement Triple P; local officials had a prior interest in the issue/problem.

d) An external agency asked local officials to implement Triple P; local officials either passively acquiesced or reluctantly agreed to adopt Triple P.

2. How much resistance from key parties was encountered in adopting Triple P?

No resistance A little resistance Some resistance Moderate residence

A great deal of resistance

3. Prior to implementation, how ready (e.g., had funding, resources, commitment) was your agency to implement Triple P?

Not ready A little ready Somewhat ready Moderately ready Very ready

4. How open was your agency to new ideas?

Not open A little open Somewhat open Moderately open Very open

Article Two

Implementing an Evidence-Based Parenting Program in Community Agencies: What
Helps and What Gets in the Way? *

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Abstract

Adoption of evidence-based programs for families by community agencies requires an understanding of variables that influence implementation. Managers and service providers from 64 community agencies reported on variables that affected the implementation of Triple P, an evidence-based parenting program. Both types of stakeholders reported adequate office resources; over half the managers and over two thirds of service providers reported adequate training. Adequate office resources and positive agency characteristics, including organizational climate, were associated with higher program usage. Service providers' reports of the variables impacted their individual adherence rates; managers had broader perspectives of the quality of implementation in their organizations.

Keywords: Adherence, program usage, service delivery, parenting intervention, implementation

Implementing an Evidence-Based Parenting Program in Community Agencies: What Helps and What Gets in the Way?

Unfortunately, services for children's behavioral problems do not routinely include effective interventions (Garland, Bickman, & Chorpita, 2010). However, demands by both public and private agencies for greater accountability in the provision of services drive growing recognition of the need for services that are evidence-based and cost-effective (Smith & Gronbjerg, 2006). Essential to the integration of evidence-based services into social and healthcare systems is a sophisticated understanding of the variables that influence implementation (Chamberlain et al., 2008). As is often the case for child and family services, research on implementation of programs for children and youth has lagged behind comparable research on services for adults (Barwick, Peters, & Boydell, 2009; Proctor, Landsverk, Aarons, Chambers, Glisson, & Mittman, 2009). Most child-focused implementation research has been conducted as part of well-funded research trials conducted in coordination with researchers and program developers (e.g., Sanders, Prinz, & Shapiro, 2009). These studies have highlighted that efficacious programs are implemented with greater success when there is a positive organizational climate and workplace support (Sanders et al., 2009; Schoenwald, Carter, Chapman, & Sheidow, 2008). In the present study, we examined managers' and service providers' views on variables related to the implementation of an evidence-based parenting program.

Parenting Programs

Behavioral parenting programs are designed to teach parents to recognize and reward positive child behavior and to mildly punish or ignore unwanted behavior (Forgatch & Patterson, 2010). Several meta-analyses synthesizing hundreds of efficacy trials have repeatedly

demonstrated that these interventions are successful in increasing positive parenting practices and in reducing disruptive behaviors in youth (e.g., Nowak & Heinrichs, 2008). There is preliminary evidence that when efficacious programs for youth with disruptive behavior disorders are transported to naturalistic settings, they yield similar results to those reported in randomized clinical trials (Hunsley & Lee, 2007). Compared to treatment as usual, evidence-based parenting programs generate significant reductions in children's behavioral and emotional symptoms, coercive parenting, and child maltreatment (Prinz, Sanders, Shapiro, Whitaker, & Lutzker, 2009). Parenting programs are included in treatment guidelines for disruptive behavior disorders (American Psychological Association, 2009; National Institute for Health and Clinical Excellence, 2009; National Research Council and Institute of Medicine, 2009; World Health Organization, 2009). Nevertheless, effective parenting interventions have not yet been widely adopted by community agencies (Weisz & Kazdin, 2010).

Program Usage and Adherence

Two key concepts in examining implementation are program usage by service providers and adherence to treatment protocols. Usage refers to whether trained service providers actually utilize a program in which they have received training and/or how much they deliver that particular program. Nonusage is a hidden cost for agencies that pay to train service providers who subsequently do not use the intervention. In this study, we examined usage as a dichotomous variable, by examining whether trained service providers used a program or not. Program adherence is the extent to which program components are delivered according to the protocols indicated in the program manuals (Dane & Schneider, 1998) and is the most commonly studied measure of implementation (Durlak & DuPre, 2008). Service providers who deliver a program with high adherence deliver the program as originally designed by its developers.

Programs for youth with behavioral problems implemented with higher adherence produce better outcomes than do those that are implemented with lower adherence (Schoenwald et al., 2008). Adherence rates in well-funded randomized trials of parenting programs range from 81%-100% (Fagan, Hanson, Hawkins, & Arthur, 2008). Reliable self-report adherence data have been collected electronically across multiple sites (Lee, August, Realmuto, Horowitz, Bloomquist, & Klimes-Dougan, 2008). Self-report measures of adherence correspond highly with data yielded by the more expensive, time-consuming, and intrusive strategy of observing sessions (Fagan et al., 2008). Although the virtues of adherence are emphasized by program developers, this field is in its infancy and adherence has been evaluated in only a minority of studies (Perepletchikova, Hilt, Chereji, & Kazdin, 2009).

Variables Affecting Implementation

Initial studies on barriers and facilitators to either using parenting programs *or* adhering to program protocols came from large scale research trials conducted by program developers (e.g., Sanders et al., 2009). Preliminary independent studies have also investigated barriers and facilitators to implementation in a small number of agencies (e.g., Stern, Alaggia, Watson, & Morton, 2008). To our knowledge, there have been few independent studies of variables related to both using *and* adhering to parenting programs in a large number of community agencies.

Once an evidence-based program has been selected by a service-delivery agency and service providers have received training in that program, a broad range of conditions must be in place to support successful implementation and program usage (Hoagwood & Kolko, 2009). Only a minority of studies have examined service providers' reports of their use of evidence-based interventions for children and families in community agencies (Kolko, Herschell, Costello, & Kolko, 2009). Preliminary findings from telephone surveys of trained service providers

suggest that they are more likely to use an evidence-based parenting program if they have confidence in their ability to deliver the program, they are comfortable working with parents, they have the flexibility to incorporate the program into their workload, and they feel they have a supportive workplace environment in which to use the program (Sanders et al., 2009). Many variables also impact the quality with which a program is delivered. Successful implementation, including high adherence to the program protocol, is more likely when there is strong administrative support for use of the program and there are policies in place that formalize the organization's commitment to the intervention (Elliott & Mihalic, 2004; Reid & Brown, 2008). Higher quality services and greater improvement in child psychosocial functioning have been found in agencies with an organizational climate in which there is little conflict between coworkers, clear professional roles, and cooperation (Glisson & Hemmelgarn, 1998). To be able to offer the program effectively, organizations must have adequate financial resources as well as the necessary equipment and office space to provide the intervention (Stern et al., 2008; Zazzali et al., 2008). Finally, in addition to having sufficient staff and a low turnover rate, successful implementation of a parenting program is facilitated in agencies in which service providers are motivated, committed to offering the intervention, and have the necessary skills to deliver it (Mihalic, Irwin, Fagan, Ballard, & Elliott, 2004). Motivated, well-trained service providers are supported by supervisors who are seen as champions of the program (Mihalic et al., 2004; Stern et al., 2008).

To properly implement evidence-based programs, behavior change is required at the level of the service provider, supervisor, and administrator (Fixsen, Blase, Duda, Naoom, & Van Dyke, 2010). Preliminary studies on barriers to implementing parenting programs have primarily focused on the reports of one type of stakeholder, namely the service provider. Little is known

about the perspective of administrators or managers who should be in a position to understand the way that a parenting program fits within the broader service organization (Kolko et al., 2009). In one of the rare studies to examine the perspectives of different stakeholders regarding factors related to the implementation of evidence-based programs, Aarons, Wells, Zagursky, Fettes, and Palinkas (2009) found that the importance of different variables differed across stakeholder groups. For example, agency directors rated the cost of evidence-based programs as more important than did service providers.

The Current Study

We examined variables associated with the implementation of Triple P- Positive Parenting Program (Sanders, 1999) across diverse agencies in a Canadian province. Triple P is an established efficacious program which includes multiple intervention levels increasing in treatment intensity; in this study we focused on the most intense levels (Levels 4 and 5) to ensure homogeneity of problem severity.

We examined implementation variables at both an agency-level (to understand the broader service organization) and at the individual service provider-level. More specifically, we explored whether 1) the ratings of different variables (office space, training needs, and agency characteristics) by managers and service providers differed, 2) reported variables were associated with agency-level usage and adherence 3) greater discrepancies in stakeholders' reports within agencies were associated with lower agency-level usage and adherence, and 4) whether a given service provider's perception impacted his/her own usage and adherence levels.

Method

Intervention

Triple P – Positive Parenting Program is a suite of parenting interventions in which parents learn behavioral skills to reduce emotional and behavioral problems in children (Sanders, 1999). The program, which has increasing levels of intensity to address various challenging degrees of behavior, was designed to provide parents with a range of treatment options including mode and strength of intervention (Sanders, 2010). Triple P is delivered across different modalities, ranging from broad media campaigns (Level 1) to specific behavioral family interventions (Levels 4 and 5). As noted earlier, in this study we examined agencies with service providers trained in Levels 4 and 5 for school-aged children in order ensure homogeneity of problem severity. Level 4 is administered as a 10-session program to individual parents or as an 8-session program to groups of 10 to 12 parents. This level is designed for parents of children at high-risk of being diagnosed with behavioral problems. Level 5 is offered to individual parents who have completed Level 4 and who are still in need of further assistance. These top-up sessions are tailored to each family's needs and can include from 3 to 11 additional sessions and address coping skills and partner support. Further details about each level are described by Sanders (1999).

Triple P has been established as an efficacious treatment. Results from several meta-analyses including data from dozens of studies indicated that Triple P was associated with positive changes in parenting skills, child behavior problems, and parental well-being (de Graaf, Speetjens, Smit, de Wolff, & Tavecchio, 2008; Nowak & Heinrichs, 2008; Thomas & Zimmer-Gembeck, 2007). The program developers examined some implementation issues in a large scale population trial (Sanders et al., 2009; Seng, Prinz, & Sanders, 2006).

Training. As described in Prinz et al. (2009), Triple P has a standardized training and quality-promotion protocol. Service providers receive training from qualified external trainers by

attending a 2-3 day training course (depending on level), review and study intervention material independently, attend a day-long competency and feedback session, and complete accreditation requirements. Teaching formats include didactic instruction, discussion, videos, modeling, and role-play. Because a minimum number of service providers are required for an external trainer to offer a training protocol, some smaller agencies that participated in this study coordinated to have their service providers trained at the same time. Therefore, some service providers were trained offsite whereas others were trained onsite.

Participants

We collected data on three types of participants: a) administrators, b) supervisors, and c) service providers. Administrators were those managing the part of the organization in which Triple P was offered and who had authority to make changes in budgets, structures, and personnel. Supervisors were those who provided oversight and advice to the trained Triple P service providers. Service providers were front line practitioners who had completed training in Triple P Levels 4 or 5 for parents of school-aged children. An agency was defined as having at least one administrator and/or one supervisor and one service provider. Demographic information was obtained from service providers. The majority were female (90.2%). They came from diverse professional roles: counselors or therapists (34.9%), social workers (26.5%); parent educators or family literacy workers (11.2%), childcare staff (11.2%), nurses (9.3%), or other (7.0%). Service providers had received training on average 25.93 months ($SD = 16.65$) prior to completing the survey. A quarter of the service providers had four years or less of experience providing parent interventions, 21.6% had five to nine years experience, and 53.3% had 10 or more years experience.

Of the 75 eligible administrators contacted, 70 (93.3%) verbally agreed to participate during a recruitment telephone call and 65 actually participated the study, yielding a participation rate of 86.7%. Sixty administrators provided data on the number of trained service providers in their agencies; five administrators did not have access to this information. Fifty-seven supervisors and 241 service providers participated in the survey (participation rates of 64.0% and 60.6% respectively). Missing data were examined. Data from participants (26 service providers, 3 supervisors, 2 administrators) who completed less than 20% of the survey were deleted (Tabanick & Fidell, 2007). Data from 5 agencies that did not have responses from at least one administrator or one supervisor and one service provider were removed. The final dataset contained responses from 59 administrators (78.6% of those contacted), 54 supervisors (60.7% of the eligible number), and 214 service providers (53.8% of the eligible number) from 64 different agencies dispersed across the province. Participating agencies had between 1 and 15 trained service providers, with an average of 3.34.

Measures

Variables associated with implementation were assessed using subscales from two validated measures. Office resources and training needs were assessed using two subscales from the Organizational Readiness for Change measure (ORC; Lehman, Greener, & Simpson, 2002). Responses were scored on 5-point scale with anchors ranging from 1 (*disagree strongly*) to 5 (*agree strongly*), with 3 being *uncertain*. Construct validity and reliability data for the ORC were reported on responses from over 500 staff members from over 100 programs (Lehman et al. 2002). ORC scores are significantly higher for staff in agencies with high stability as compared to agencies with low stability (Lehman et al., 2002). Lehman et al. created two versions of the measure with minor wording differences adapted for staff delivering the program and for

administrators/directors. In the current study, administrators and supervisors completed subscales from the director version and service providers completed subscales from the implementing staff version.

Administrators, supervisors, and service providers also completed subscales of the Factors Related to Program Implementation measure (FRPI; Mihalic & Irwin, 2003) to assess agency characteristics, including organizational climate, staff characteristics, and supervisor characteristics. Participants rated the extent to which they considered each item a barrier or an asset to implementation on a 5-point Likert scale, ranging from 1 (*significant barrier*) to 5 (*significant asset*) with 3 being *neither asset nor barrier*. In evidence-based programs for youth and families, the FRPI was positively correlated with program adherence, percentage of core program components achieved, and program sustainability (Mihalic & Irwin, 2003). The ORC and the FRPI were modified to specify that items related to Triple P. For example, *buy-in of program* was changed to *buy-in for Triple P*.

Office resources. Participants completed the 4-item ORC *Offices* subscale, which measures the adequacy of physical space available for offering Triple P services. Internal consistency for the original scale was $\alpha = .79$; and for this sample was adequate for service providers ($\alpha = .74$) and supervisors ($\alpha = .73$) and good for administrators ($\alpha = .84$). Total scale scores, which are the sum of individual items range from 4 to 20. Total scale scores below the midpoint of 12 were categorized as “disagree”, scores of 12 as “neutral”, and above 12 as “agree”. Sample items include: *Your offices and equipment are adequate for activities related to Triple P* and *The agency provides a comfortable reception/waiting area for Triple P clients*.

Training needs. Participants completed the 8-item ORC *Training Needs* subscale which assesses the need for staff training in various areas. Internal consistency for the original scale

was $\alpha = .88$; and for this sample was good for service providers ($\alpha = .86$), supervisors ($\alpha = .83$) and administrators ($\alpha = .83$). Total scale scores, which are the sum of individual items, can range from 8 to 40. Higher scores for this subscale indicate that the participant thinks more training is required. Total scale scores below the midpoint of 24 were categorized as a “disagree”, scores of 24 as “neutral”, and above 24 as “agree”. Sample items include: *You need more training for monitoring client progress in Triple P* and *You need more training for increasing parent participation in Triple P*.

Agency characteristics. Inspection of the correlation matrix revealed very high correlations for the three subscales of the FRPI (organizational climate, staff characteristics, and supervisor characteristics), with correlation coefficients ranging from .52 to .83 (with the majority in the .70-.80 range). This multicollinearity in the dataset suggested that the three subscales measured a similar concept. To avoid inflated error terms, we created a composite score for the subscales of the FRPI which we labeled “agency characteristics” (Tabachnick & Fidell, 2007). This 24-item scale assessed organizational climate including administrative support, agency cohesion, financial support; variables related to service providers including motivation to use Triple P and prioritization of the program; and variables related to supervision including supervisors’ knowledge and availability. All items were specific to Triple P implementation. Internal consistency for this sample was excellent (service providers: $\alpha = .95$, supervisors: $\alpha = .92$, administrators: $\alpha = .92$). Total scale scores, which are the sum of individual items, can range from 24 to 120. Total scale scores below the midpoint of 72 were categorized as a “barrier”, scores of 72 as “neutral”, and above 72 as “asset”. Sample items include: *Throughout the process of implementing Triple P, how much have each of the following factors been an asset*

or a barrier: Open lines of communication between agency officials, program staff, and service providers; Service provider's motivation; Supervisors' skill and knowledge.

Program usage and adherence. To assess usage, trained service providers were asked whether or not he or she had delivered Triple P to parents. Program adherence was assessed using the session-specific checklists in service providers' Triple P manuals (Sanders, Markie-Dadds, & Turner, 1998; Sanders, Markie-Dadds, & Turner, 2000; Turner, Markie-Dadds, & Sanders, 1997). Very few published findings are available on the validation of quantitative adherence measures (Fagan et al., 2008; Stern et al., 2008) and there are not currently any validated adherence measures for Triple P (Asgary-Eden & Lee, 2011). Therefore, service providers who had used the program were asked to rate whether or not he or she had taught each session objective (by indicating "yes" or "no") for the most recent Level 4 or 5 session he or she had offered. Service providers were asked to rate the last session offered rather than multiple sessions to increase accurate recall and to reduce the burden of participation, increasing response rates. To enhance accuracy, they were asked to refer to their session notes or session checklists which were completed during or shortly after the session. The adherence score was calculated as the percentage of objectives taught divided by the total number of objectives.

Procedure

Preliminary lists of agencies with service providers trained in Triple P were obtained from the Provincial Centre of Excellence for Child and Youth Mental Health and from the program developers who administered training. The names of additional agencies were obtained through word of mouth. All agencies with service providers trained in Triple P levels 4 and 5 were eligible to participate.

As described in Asgary-Eden and Lee (2011), we emailed administrators from all agencies with trained service providers to introduce the study and to inform them that we would be calling them in the following days. We then phoned to explain the study in greater detail, answer any questions, and invite administrators to participate. Over a 6 month period, we were successful in reaching 75 of the 81 administrators (92.6%) on our list. The six administrators we were unable to contact did not respond to repeated calls and emails. We sent a study notice with a link to the online survey to the 70 administrators who agreed to participate; we asked administrators to complete the survey and also to forward the notice and the study link to trained service providers and supervisors in their agency. Administrators were therefore the study gatekeepers for service providers and supervisors. This strategy was employed to maintain the confidentiality of service providers' and supervisors' contact information. As a result, we were unable to monitor the extent administrators communicated with their staff about the study. To maximize the response rates, the survey was designed to take no longer than 15 minutes to complete. Approximately two weeks after the first email was sent to administrators, a reminder email was sent asking potential participants to complete the questionnaires if they had not yet had a chance and thanking those who had. This project received approval from the university's Social Sciences and Humanities Human Research Ethics Committee.

Results

Data were cleaned following the recommendations of Tabachnik and Fidell (2007). Fifteen participants were missing total scores on the agency characteristics measure, 12 were missing total scores on the training needs measure, and five were missing total scores on the office resources measure because they did not complete the measures. These missing data were deemed to be randomly distributed and were treated as system missing. Three outliers whose

scores were more than three standard deviations above the mean were deleted (one in training needs and two in office resources).

Of the 214 trained service providers who completed the survey, 150 (70.1%) had delivered the program (data were missing for 10 participants). The average adherence percentage reported by individual service providers who had delivered the program was 85.89% ($SD = 16.67$). Within each agency, mean scores for each of the three implementation variables were calculated for each type of respondent and used in subsequent analyses (e.g., Glisson & Hemmelgarn, 1998). An agency program usage score was created by calculating the percentage of trained service providers who reportedly used the program in each agency. Mean agency adherence scores were also calculated.

The correlation matrix (Appendix A) for the variables that affected implementation (office resources, training needs, agency characteristics) for the three types of informants revealed that supervisors' and administrators reports were highly correlated for two of the three variables: offices $r(32) = .51, p = .003$ and agency characteristics $r(31) = .57, p = .001$ (but not for training needs $r(32) = .03, p = .879$). We therefore combined supervisors' and administrators' reports into one type of respondent, labeled "manager". To ensure this new combined category of respondents did not mask differing perspectives, separate regression analyses for administrators and supervisors were run. The results are reported below and lend support to the decision to combine supervisors and administrators into "managers". The means and standard deviations for the variables that affect implementation are presented in Appendix B.

Table 1 presents descriptive data on managers' and service providers' ratings of the way implementation was affected by office resources, training needs, and agency characteristics. Across all agencies, 87.5% of managers and 82.5% of service providers agreed that they had

adequate office resources to deliver Triple P; 4.7% of managers and 12.7% of service providers disagreed that office resources were adequate. 31.1% of managers and 23.8% of service providers agreed that they needed more training in Triple P. Finally, 63.9% of managers and 66.1% of service providers agreed that the characteristics of their agencies were assets to the delivery of Triple P whereas 31.1% of managers and 30.6% of service providers disagreed with this.

Perspectives of Different Stakeholders

To examine whether there were differences between managers' and service providers' reports, independent samples *t*-tests were performed for the three variables. The only variable for which there was a significant difference was office resources $t(125) = -2.20, p = .03$, with managers ($M = 15.77, SD = 2.56$) more strongly agreeing that office resources were adequate than did service providers ($M = 14.71, SD = 2.45$); the impact of this difference is likely to be minor however, as the majority of both types of raters agreed that office resources were adequate. There were no significant differences in the perceptions of managers and service providers with respect to either training needs $t(122) = -.88, p = .379$ or agency characteristics $t(123) = -.59, p = .557$.

Relationship between Variables and Agency Mean Usage and Adherence

To assess whether managers' and service providers' reports of variables predicted agency program usage, two multiple standard regressions were performed. In the first regression, managers' reports of the adequacy of office resources, training needs, and agency characteristics were entered into the equation; the overall regression was not significant $F(3, 56) = 1.03, p = .39$ (table 2)¹. The second regression revealed that service providers' reports of variables

¹ To examine whether the regression results would be different had we not combined administrators and supervisors together as "managers", we reran the analyses for each group separately. In both cases, the results remained non-

significantly predicted agency program usage $F(3, 57) = 2.74, p = .05$ although none of the predictors was significant, implying that they did not make incremental contributions (table 2).

Although service providers' reports of office resources and agency characteristics were significantly correlated with agency program usage ($r(63) = .27, p = .03$ and $r(63) = .27, p = .03$ respectively), once one variable was taken into account in the regression, the other did not make additional contributions.

To examine the relationship between office resources, training needs, and agency characteristics and adherence, two multiple standard regressions were run for managers and service providers. In the first regression, managers' reports of adequacy of office resources, training needs, and agency characteristics were entered into the equation; as seen in table 3, the overall regression was significant $F(3, 44) = 3.99, p = .01$ indicating that managers' reports of the variables predicted agency mean adherence. More specifically, agency characteristics were the significant predictor $B = .48, p = .001$.² Next, service providers' reports were entered into a regression; the results were not significant $F(3, 44) = 1.83, p = .16$ (table 3), indicating that service providers' reports of the variables did not predict agency mean adherence.

To examine whether the strength of the relationship between managers' reports of the three variables and agency mean adherence was different than the strength of the relationship between service providers' reports and agency mean adherence, *t*-tests for paired correlations

significant: administrators: $F(3, 48) = 1.41, p = .25$ and supervisors: $F(3, 34) = 0.49, p = .69$, indicating the category "manager" did not mask differences in perspectives.

² To examine whether the regression results would be different had we not combined administrators and supervisors together as "managers", we reran the analyses for each group separately. For administrators, the results remained significant $F(3, 42) = 3.02, p = .04$ with agency characteristics as the significant predictor $B = .43, p = .005$. The regression for supervisors was non-significant $F(3, 24) = 1.59, p = .22$ but was based on a limited sample size. When further examining the predictors, it could be noted that training needs, which was the only variable for which administrators and supervisors did not have correlated reports (Appendix A), was non-significant $B = -.16, p = .43$ whereas agency characteristics approached significance $B = .38, p = .055$. Therefore, the results cannot be attributed to the difference in reports for training needs and may be due to the small sample size for supervisors.

were performed. These analyses were also repeated with agency program usage as the dependent variable (DV). No significant differences were found.

Discrepancies in Reports

To explore whether differences between the respondents' reports of the variables were related to agency program usage and agency mean adherence, the differences between the mean scores for managers and service providers within each agency were calculated. A correlation matrix did not revealed any significant results, indicating that differences in the perceptions between managers and service providers within individual agencies were not associated with agency program usage or agency mean adherence.

Analyses at the Service-Provider Level

For these exploratory analyses, we used unaggregated scores for each service provider using Hierarchal Linear Modeling (HLM) which takes into account the similarities between service providers within agencies (Raudenbush & Bryk, 2002). A Missing Values Analysis was conducted and Expectation Maximization was used to fill in the missing data for service providers from four agencies. HLM analyses were performed to test 1) whether on average a given service provider's perception of the variables impacted his/her own usage and adherence levels 2) whether the relationships between the variables and usage/adherence were found consistently across agencies. A 2-level HLM model was used where level 1 units were service providers' reports of the variables, years of experience providing parenting interventions, and their own usage/adherence rate and level 2 units were agency level means of the variables, years experience, and usage/adherence. As a first step, individual service provider's usage of the program was included as the DV. The results were not significant, indicating that service providers' perception of the variables did not impact their individual usage of the program. For

office resources and agency characteristics, the lack of relationship with usage was constant across agencies. For training needs and experience, we could not reliably determine whether the lack of relationship with usage was constant or not across agencies (the reliability of the slope was below .05 indicating an insufficient ratio between the relationship of the DV and the variables and noise to dependably interpret calculations of the variance across agencies).

HLM analyses were also performed with individual service providers' adherence rates as the DV. Perceptions of the adequacy of office resources did not significantly predict adherence $t(142) = 0.62, p = .539$. We could not reliably determine whether this lack of relationship remained constant across agencies. The relationship between agency characteristics and adherence $t(52) = 0.41, p = .687$ was also nonsignificant. This result was constant across agencies $\chi^2(29) = 31.82, p = .327$. There was a significant relationship between training needs and adherence $\beta = -.72, t(52) = -2.67, p = .010$ so that for a given service provider, the more training he or she believed he or she needed, the less he or she adhered to the program protocol. This relationship was constant across agencies $\chi^2(29) = 32.69, p = .290$.

Finally, we also tested whether service providers' years of experience offering parenting program had an effect on their adherence to the program. On average, for a given service provider experience did not impact adherence $t(52) = 0.72, p = .474$. However, the relationship varied significantly across agencies $\chi^2(27) = 44.25, p = .019, 95\% \text{ CI } [-3.82, 4.78]$ meaning that in some agencies, for every extra year of experience, service providers' adherence scores went up almost 5% whereas in other agencies for every extra year of experience, their adherence percentage went down by almost 4%. To explain this finding, we explored whether the other variables acted as moderators and found that this was the case for agency characteristics $\beta = -0.08, t(51) = -2.42, p = .02$. In agencies in which agency characteristics were rated as assets to

implementations, service provider experience had little effect on adherence and furthermore adherence was high for all service providers within that agency. For agencies in which agency characteristics acted as a barrier, there was a strong positive relationship between experience and adherence so that only service providers with many years experience reached the same level of adherence as service providers in agencies where agency characteristics were assets. Agency mean adherence also acted as a moderator between experience and self-reported adherence levels $\beta = -0.18$, $t(51) = -2.56$, $p = .01$. An unexpected finding was that when the agency's mean adherence rate was higher, more experienced service providers were less likely to adhere whereas in agencies with lower mean adherence rates, more experienced service providers were more likely to adhere.

Discussion

In the current study, we examined variables associated with the usage of and adherence to an evidence-based parenting program, Triple P, in community agencies. To enhance understanding at both an agency level as well as at the individual service provider level, we investigated the reports of managers and service providers. Although both stakeholders generally agreed with each other about the variables that affected implementation, there were circumstances in which it was helpful to consider their separate perspectives.

Perspectives of Different Stakeholders

The majority of respondents reported that they had adequate office resources to implement Triple P. Across all agencies, almost a third of managers and a quarter of service providers agreed they still had training needs with regards to Triple P. Nevertheless, over half the managers and over two thirds of service providers disagreed that they had training needs. The variable that was identified most commonly as a barrier to implementation was agency

characteristics which included organizational climate, service providers' characteristics, and supervisor characteristics. Positive agency characteristics were identified by almost two in three managers and service providers as being an asset to implementing Triple P. Diversity of opinion did not affect usage or adherence rates within an agency. It therefore appears that some dissimilarity is normative and does not necessarily result in poorer implementation.

Program Usage

Of the service providers who were trained in Triple P and participated in this study, 70.1% had delivered the program. This percentage is slightly higher than the usage rate (62.85%) found in a population trial of Triple P (Sanders et al., 2009). The usage rate found in our study however may be an overestimate seeing as nonusers may have been less likely to participate. Nevertheless, almost a third of the participants had never used the program. Nonusage by trained individuals is a significant under-use of resources and results in added costs and lower returns on agencies' investments (Sanders et al., 2009). It is therefore valuable to find ways to increase usage rates.

At an agency level, service providers' reports of the adequacy of office resources, training, and agency characteristics were associated with average usage. As a group, the more service providers in an agency perceived office resources to be adequate and agency characteristics as an asset, the more likely they were to use Triple P. This is consistent with previous findings that service providers who feel they have a supportive workplace environment are more likely to use the program (Sanders et al., 2009). Both variables had comparable effects on usage and therefore to increase program usage rates in agencies, either of these variables could be addressed. Despite the finding that service providers' ratings were associated with overall agency level usage, surprisingly their reports of variables were not related to their own

individual usage. These findings may be explained by service providers' motivation and level of confidence in their ability to use Triple P, and their comfort levels working with parents (Sanders et al., 2009). Another possible explanation may be related to attitudes towards evidence-based programs which have been shown to affect implementation (Aarons & Palinkas, 2007). So for example, it is possible that only those service providers with favorable attitudes towards evidence-based parenting programs may benefit from facilitating factors. In future research, it may be illuminating to assess whether attitudes moderate the impact of the variables assessed in this study on implementation of evidence-based parenting programs. To ensure higher usage rates in agencies with trained service providers, a supportive organizational climate, service providers' investment in the program and adequate supervision should be promoted. In addition, adequate office space must be provided.

Program Adherence

In this sample, the average adherence percentage among service providers was 85.89% which is comparable to rates found with other parenting programs (Stern et al., 2008). Although managers' reports were not associated with usage, their reports of agency characteristics were associated with mean agency levels of adherence to the Triple P program. Consistent with the findings reported by Kolko et al. (2009), managers appeared to have a larger-scale perspective of the characteristics of their agencies that acted as barriers or assets to the quality of implementation in the broader organization. To provide a supportive work environment that encourages staff to implement evidence-based programs with high adherence, and ultimately improve client functioning (Schoenwald et al., 2008), managers are required to make decisions with regards to whether additional training or supervision are needed. It therefore is important

for them to have an understanding of how programs are being implemented in their organizations and what facilitates or hinders this process.

Service providers' reports of the variables were not associated with adherence at an agency-level; however they could tell us about their individual adherence to the program protocol. Service providers who did not feel they required additional training in Triple P reported higher adherence to the program. It is impossible to tell from our data the reasons for this link, but it is plausible that service providers who were less confident in their ability to deliver the program omitted session objectives because they were not yet able to accurately manage their time in session or alternatively did not feel comfortable delivering certain objectives to particular parents (Stern et al., 2008). Service providers' adherence levels varied according to agency characteristics. In agencies in which agency characteristics were assets, years of experience had little effect on adherence. In fact, service providers in these agencies reported high adherence rates regardless of their level of experience. On the other hand, in agencies in which agency characteristics acted as barriers, only more experienced service providers reported higher adherence rates. Less experienced service providers who perceived their agency to have poorer atmospheres reported the lowest adherence. Higher adherence results in better youth outcomes (Schoenwald et al., 2008), meaning a better return for the organization's investment in training. Therefore, to promote optimal performance, it is important to enhance agency characteristics, such as administrative support, an opportunity to communicate with other service providers about the program, and providing adequate supervision.

A surprising finding was that when the mean agency adherence was higher, more experienced providers were less likely to adhere than were less experienced providers. On the other hand, in agencies with lower mean adherence, more experienced service providers were

more likely to adhere than less experienced service providers. It is possible that if everyone else in the agency is following the protocol, more experienced service providers may feel they have the leeway to deviate or adapt the protocol to meet clients' needs (Aarons & Palinkas, 2007) whereas if they are in an agency where adherence is generally lower, they may feel they have to set a good standard for their coworkers.

Limitations and Conclusions

Adherence rates were based on retrospective self-reports and, like any self-report measure, are open to bias. On the other hand, this was a cost-efficient and nonintrusive manner of collecting data from numerous geographically dispersed sites and as previously noted, self-reported adherence has been found to be highly associated with observational ratings (Fagan et al., 2008).

Because the initial three subscales designed to measure agency characteristics were very highly correlated we combined them to make a composite score. In creating this broader measure we lost the fine-grained analysis afforded by the subscales. It would be helpful in future research with larger samples to conduct factor analyses to better understand the structure of the scale.

Finally, we used aggregated scores at the agency level to be able to examine both managers' and service providers' reports of variables with regards to usage and adherence at an agency level in addition to the individual service provider level. This may have limited some of the variability within agencies, potentially obscuring some differences (Glisson, 2002). Moreover, 64 agencies provides only a modest sample size and therefore some of the nonsignificant results may be due to low statistical power. Small sample sizes and statistical analyses for multi-level designs are among the biggest challenges in implementation research (Proctor et al., 2009).

Preliminary studies have started to examine the correlates of service providers' usage of evidence-based programs for children and families as well as managers' perspectives on implementation (Kolko et al., 2009). The quality of the delivery of parenting programs such as Triple P in community agencies is also starting to receive progressively more empirical attention. The results from the current study highlight the importance of including the views of different types of stakeholders to have a comprehensive understanding of the usage of and adherence to a parenting program at both an agency level and at an individual service provider level. Overall, managers and service providers had similar perspective about the variables affecting implementation. Service providers' usage of the program on an agency level was impacted by adequacy of office resources and agency characteristics. Despite some differences in reports within agencies, diversity of perspective did not affect usage or adherence and therefore is not necessarily detrimental to implementation. Consistent with their role, managers had a larger-scale perspective of the characteristics of their agencies that acted as barriers or assets to the quality of implementation in the broader organization. Because managers must ensure that service providers have the appropriate tools and supports to perform at high levels (Fixsen et al., 2010) and must make decisions regarding resource allocation, their awareness of what is happening in their agency is crucial. Service providers on the other hand were able to tell us about their own adherence levels, rather than those of the organization as a whole. The less training they thought they required, the more they adhered to the program protocol. Additionally, the findings revealed an interaction between experience and agency characteristics, indicating the importance of considering both individual factors and work environment. Paralleling studies on services for youth (e.g., Schoenwald et al., 2008), our findings indicated that agency characteristics have an important impact on service delivery of parenting programs. Agencies

interested in monitoring and improving implementation should collect information on variables affecting implementation at multiple stakeholder levels and consider both program usage and adherence.

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Table 1

Managers' and Service Providers' Ratings of Variables Affecting Implementation (in %)

	Managers	Service providers
Adequate office resources		
Agree	87.5	82.5
Neutral	7.8	4.8
Disagree	4.7	12.7
Training needs		
Agree	31.1	23.8
Neutral	11.5	6.4
Disagree	57.4	69.8
Agency characteristics		
Asset	63.9	66.1
Neutral	5.0	3.3
Barrier	31.1	30.6

Table 2

Prediction of Usage by Reported Variables

	<i>b</i>	<i>SE b</i>	β	<i>sr</i> ²
Managers				
Constant	58.31	41.57		
Office resources	-.53	1.69	-.04	.00
Training needs	-.53	.88	-.08	.00
Agency	.44	.28	.21	.04
characteristics				
Service providers				
Constant	-12.61	33.20		
Office resources	3.37	1.82	.24	.04
Training needs	.34	.97	.04	.01
Agency	.35	.27	.18	.03
characteristics				

Note. $R^2 = .05$ for managers, $R^2 = .13$ for service providers. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3

Prediction of Adherence by Reported Variables

	<i>b</i>	<i>SE b</i>	β	<i>sr</i> ²
Managers				
Constant	62.29	14.01		
Office resources	-.29	.56	-.07	.00
Training needs	.09	.29	.05	.00
Agency	.33	.09	.48***	.21
characteristics				
Service providers				
Constant	78.14	13.84		
Office resources	-.20	.75	-.04	.00
Training needs	-.34	.41	-.12	.02
Agency	.23	.11	.34	.10
characteristics				

Note. $R^2 = .21$ for managers, $R^2 = .11$ for service providers. * $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix A

Correlation Matrix for the Variables that Affect Implementation According to Type of Respondent

	Office resources			Training needs			Agency Characteristics		
	<u>Admins</u>	Supers	SP	<u>Admins</u>	Supers	SP	<u>Admins</u>	Supers	SP
Office resources									
<u>Admins</u>				-.16	-.30	-.14	.29*	.10	.19
Supers	.51**			-.04	-.16	-.24	.19	-.13	.02
SP	.19	.40**		-.04	-.07	-.04	.18	.06	.29*
Training needs									
<u>Admins</u>	-.16	-.04	-.04				-.23	-.09	-.09
Supers	-.30	-.16	-.07	.03			.03	.16	-.03
SP	-.14	-.24	-.04	-.16	.39*		.04	-.02	.26*
Agency Charact.									
<u>Admins</u>	.30*	.19	.18	-.23	.03	.04			
Supers	.10	-.13	.06	-.09	.16	-.02	.57**		
SP	.02	.02	.29*	-.09	-.03	.26*	.46**	.34*	
Mean Adherence	-.00	.02	.07	-.07	-.03	-.05	.41**	.38*	.31*
Agency Usage Rate	.01	.08	.27*	-.07	-.11	.09	.26	.11	.27*

Note. Admins = Administrators, Supers = Supervisors, SP = Service Providers; This table was not included in the submitted manuscript.

* $p < .05$, ** $p < .01$, *** $p < .001$

Appendix B

Means and Standard Deviations for the Variables that Affect Implementation

	Mean	Standard deviation
Office Resources		
Managers	15.84	2.63
Service providers	14.63	2.49
Training Needs		
Managers	22.35	4.87
Service providers	21.81	4.63
Agency Characteristics		
Managers	82.27	15.38
Service providers	80.74	17.00

Note. This table was not included in the article in press.

General Discussion

In the following section, the study results, their implications, and limitations will be discussed. The results of the current study were also presented during a knowledge transfer session conducted via the Ontario Telehealth Network in January 2011. Over a hundred representatives from agencies across the province participated in this session which provided a forum to discuss the findings and develop future research questions. At the beginning of this discussion section, I will briefly review the move towards evidence-based service provision and the current study; then I will discuss the findings about agencies' readiness and resistance, followed by the results on usage of the program and adherence to the session checklist. Next I will argue for the importance of research on service providers' and managers' views on supervisory practices that facilitate program adherence. I will suggest new roles for clinical psychologists in facilitating implementation of evidence-based services by others. In each section, I will examine the extent to which the results are consistent with the research literature, present limitations, and propose implications for practice and research.

The Implementation of Evidence-Based Programs

In recent years, there has been an impetus to develop, evaluate, and implement evidence-based psychological interventions (Kazdin & Blase, 2011). As the healthcare field has increasingly moved to the provision of evidence-based services, the field of psychology has also been shifting its focus towards treatments that are based on sound scientific findings (Fixsen, Blase, Duda, Naoom, & Van Dyke, 2010). Program developers have responded by developing and evaluating efficacious treatments for children, families, and adults. The current challenge is how to encourage the uptake of efficacious psychological interventions in community settings and ensure their implementation respects the empirical tradition in which they were developed.

In his presidential address for the American Psychological Association (APA), James Bray (2010) contemplated the future of the profession of psychology. He keenly argued that psychologists need to expand their traditional scope of practice and, amongst other things, promote evidence-based practice and work in multidisciplinary settings. He also stressed the importance for psychologists to become clinical leaders by using their research and evaluation skills to implement evidence-based psychological interventions and make program changes in service delivery systems.

Research on implementation is still in its early stages but there has been an important recognition of the necessity to study how efficacious interventions are transported into real-world settings. The emergence of this type of research is particularly recent in the area of child mental health (Landsverk, Brown, Reutz, Palinkas, Horwitz, 2011). Implementation studies are the final phase of translating research into practice and are distinct from efficacy and effectiveness studies (Landsverk et al., 2011). The findings of the current study provide data to this nascent field. Implementation models that provide the framework for large-scale applications of programs in the community are being developed (Proctor, Landsverk, Aarons, Chambers, Glisson, & Mittman, 2009). The next wave of research will test these models. As of now, there is no consensus on what type of implementation model is best suited for child mental health services (Horwitz & Landsverk, 2011). Traditionally, implementation research has focused on medical and business settings and therefore it is unclear how these findings translate into other types of sectors, including child mental health (Aarons, Hurlburt, & Horwitz, 2011). The results from this study provide information about the implementation process, variables that are associated with it, and challenges of conducting this type of research in community settings serving children and

families. Some of the most notable challenges included having a big enough sample size and accessing psychometrically sound measures.

The Current Study

The current study was designed to examine the implementation of an evidence-based parenting program. An online survey was completed by individuals from 69 community agencies across the province of Ontario that had service providers trained in Triple P. The perspectives of service providers, supervisors, and administrators were included. The reasons for choosing the program were explored, as well as pre-implementation readiness, resistance, and openness; self-reported program usage and adherence; and variables affecting program implementation. I selected variables that have been shown to affect implementation of programs in other fields including medicine and business. In addition I included variables proposed by the developers of Triple P to ease the implementation of the program, including organizational variables, staff attributes, and training.

Response rates for administrators were high (86.7%) but relatively lower for supervisors and service providers (64.0% and 60.6% respectively). During data collection, it was observed that some administrators were very enthusiastic about Triple P and about participating in the study. This interest translated into higher participation rates for these agencies. For example, some administrators offered to follow up with individual service providers regarding their participation or offered to present the study during staff meetings. Although it was always emphasized that participation was voluntary, administrators' eagerness towards Triple P and research may have been transmitted to their staff. Several administrators also provided contact information for other agencies that had service providers trained in Triple P and a couple even emailed their colleagues in neighbouring organizations to inform them about the study. This

demonstrates that administrators can be leaders within their agencies and among their colleagues (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005); they can emphasize certain values and champion certain practices.

Unfortunately, the reverse was also true and some administrators may have negatively affected participation rates among their staff. Some appeared reluctant to participate in the study as they had not been involved in the initial selection, adoption, or implementation of Triple P and consequently did not feel they knew the program well enough to participate in the study. It is questionable whether these administrators were able to spearhead the usage of evidence-based programs or provide leadership for their implementation. In future studies, it would be useful to gather data on administrators' levels of commitment to and knowledge about evidence-based programs being offered in their organizations and to examine the effects these have on research participation. These observations mirror what is known about administrators' positions as leaders and the importance of having them onboard for the adoption and implementation of programs (Sanders & Murphy-Brennan, 2010), and to conduct research in community settings. As an external researcher who was not involved in initial implementation of the program within the agencies, I did not have direct access to service providers and supervisors. It is possible that having direct access to these individuals in order to introduce the study, answer questions, and encourage participation may have increased participation rates. When interpreting the findings, it must be taken into consideration that this sample may under-represent agencies with administrators who were not engaged in Triple P, providing an overly positive view of the program's implementation in Ontario.

Nonusers. With regards to service providers' reports, the information provided by program users may have been representative of service providers who have been trained in an

evidence-based parenting intervention and subsequently deliver it. Although service providers who had received training but had not yet offered the program (nonusers) also participated in the study, it is probable that this group was underrepresented. For example, they may have been less invested in the program and therefore less interested in providing feedback about implementation. Another possible explanation is that they may not have been informed about the study because of limited involvement with other individuals offering or supervising this intervention. Future studies could examine ways of accessing nonusers and ensuring their perspective is adequately represented. One way to access these individuals might be to conduct individual interviews or small focus groups rather than large-scale surveys.

Populations served. It will be also useful for subsequent studies to examine whether patterns of use and adherence vary across agencies that serve different populations. During the recruitment phase, a few administrators specified that their organizations mainly served first nations families and they perceived unique challenges to working with this population. Some participants remarked in the survey's comment section that special modifications were made to the program to increase the cultural relevancy for their clientele. Examples included translating the material or using more culturally appropriate illustrations of concepts. The developers of Triple P have acknowledged the importance of adapting curricula for various cultures and have created and tested versions of the program for different populations (Sanders, 2010). Other administrators in our sample indicated that they managed child protection agencies. Comments made by managers and service providers included that they did not believe Triple P was always an intensive enough program to meet the needs of this population. Despite this perceived barrier, the program has been found to decrease instances of child maltreatment (Prinz, Sanders, Shapiro, Whitaker, & Lutzker, 2009). Building on this study, future studies could compare barriers and

facilitators as well as usage and adherence patterns between agencies that serve different types of populations in order to make more tailored recommendations.

Representativeness. An important question is the extent to which findings from this study may generalize to the implementation of other evidence-based programs. The study design included features to increase the generalizability of findings. Data were collected from agencies serving various types of populations including First Nations, rural, urban, recent immigrants, and families requiring child protection. Therefore, the data include perspectives from service providers serving individuals facing a variety of challenges. Additionally, the brevity of the survey was designed to maximize involvement from all types of respondents, not only those who are highly invested in or enthusiastic about the program. Therefore, a variety of types of service providers and managers working with a range of client populations were included, increasing the representativeness of the sample. The results of this study are consistent with earlier findings on the implementation of other evidence-based programs.

On the other hand, some features of the Triple P program should be borne in mind in considering generalizability to other evidence-based programs. The first is the extent of the Triple P infrastructure. In addition to the features of many evidence-based programs, such as formal training, accreditation, and availability of workbooks and videos, Triple P also has online resources to aid implementation. Furthermore, given the extent to which Triple P has been adopted in Ontario, there is a wide network of service providers who use Triple P,

In conclusion, it is plausible that these findings can be generalized to other evidence-based programs with similar structures and to other parenting programs based on social learning and behavioural theories, although additional research is needed to confirm this.

Analyses. To ensure that agencies with a larger number of trained service providers did not outweigh those with fewer service providers, mean scores for each agency were calculated (Glisson & Hemmelgarn, 1998). Although this allowed me to obtain information from smaller agencies, it also resulted in a loss of variability within agencies. When conducting analyses at the agency level, I considered using Hierarchical Linear Modeling (HLM) to account for the differing numbers of participants within agencies while maintaining sensitivity to the variability between participants. This method however was ruled out because the analysis requires a separate dependent variable score for each participant within an organization and in our sample, only services providers provided adherence scores, not supervisors or administrators (Raudenbush & Bryk, 2002). Moreover, despite having over 300 individual participants, the unit of analysis, which was the total number of agencies, only provided a modest sample size and consequently only allowed the detection of larger effects. Consequently, non significant findings may be the reflection of low power as well as the measures used. For example, in the first article, the sample size, the low power of the chi square analyses, and the unknown psychometric properties of the measures employed impact the certainty with which we can interpret the results.

Because of the high correlations between the subscales of the Factors Related to Program Implementation (FRPI) measure, the subscales were combined to create one scale with high internal consistency (alphas $>.90$). This did not change the pattern of results from when the subscales were analysed separately. In addition, an exploratory factor analysis (EFA) revealed that all 24 items from the combined scale loaded onto one factor with loadings $>.40$ (see table in Appendix L). The EFA did not yield a three-factor structure that conformed to the subscales of the original scale. However, a consequence of combining the items into one scale, is that is impossible to determine which agency characteristics had the greatest association with adherence

and usage. This unfortunately precludes comparison of these results to research conducted using separate subscales. Since the development of this study, a promising scale has been published. The Organizational Social Context measure (Glisson et al., 2008) assesses organizational culture, climate and work attitudes and has adequate scale reliabilities and nationwide norms. It does not however examine all of the constructs covered by the FRPI. Given the dearth of appropriate measures to examine implementation (Kimberly & Cook, 2008), scale development studies are necessary before being able to accurately examine implementation.

A research priority is to establish psychometric properties of measures used in implementation research, and access larger samples. The challenges with the current study appear to be consistent those generally found in implementation research. More specifically, small sample sizes and statistical analyses for multi-level designs represent some of the most significant difficulties in the field (Proctor et al., 2009).

Implications from the results of this study include potential modifications that service delivery organizations can make to increase program usage and adherence. To advocate for the adoption of evidence-based programs and to make appropriate practice recommendations, psychologists must have a preliminary understanding of how these interventions are implemented in the community (Asgary-Eden & Lee, 2011).

Pre-Implementation Openness, Readiness, and Resistance

The findings from this study paint an overall positive picture of the implementation of Triple P in Ontario agencies. Regardless of whether the initiative originated within the agency (bottom-up) or whether it was imposed on them by a government agency (top-down), most administrators reported that their agencies were supportive of the decision to adopt the program; only a small minority of administrators reported that their agency had reluctantly accepted to

offer Triple P. Moreover, the vast majority of administrators reported that their agencies were open to the idea of implementing the program. Despite this, almost half described not being ready and experiencing some resistance.

Psychologists can help increase pre-implementation readiness by setting up appropriate supervisory resources, peer support networks (Barwick, Peters, & Boydell, 2009), access to training, evaluation plans, and by using implementation frameworks. The Institute for Healthcare Improvement provides a framework for sustainable system-level change in healthcare settings which includes setting targets, developing projects to meet goals, using appropriate resources, and conducting problem-solving review sessions (Nolan, 2007).

Regardless of how a program is initiated, if the front-line staff delivering the program are not supportive of the intervention, implementation difficulties arise (Mihalic & Irwin, 2003). High levels of staff resistance to implementing new evidence-based programs instead of services as usual have been found in adult mental health agencies, particularly if the original program is perceived to conflict with the principles of the evidence-based program (Bond, McHugo, Becker, Rapp, & Whitley, 2008). The results of the current study confirm previous findings of resistance in agencies prior to the implementation of an evidence-based program (Barwick, Boydell, Stasiulis, Ferguson, Blase, & Fixsen, 2005) and extend them specifically to parenting interventions. Because resistance in this study was measured by asking a single question, the results need to be replicated with more elaborate and psychometrically sound instruments. Building on these findings, subsequent studies could examine whether the source of the resistance was related to a particular aspect of Triple P. For example, some individuals may initially be resistant because the program was developed in Australia and therefore they may be uncertain as to whether the program could work with their clients. It would also be interesting for

future investigations to explore the impact this initial resistance has on the long-term usage of and adherence to evidence-based parenting programs and how to reduce this resistance. For example, resistance may be reduced by organizing and leading pre-implementation focus groups, information sessions, or informal drop-in times with staff.

The current findings on readiness and resistance suggest that future large scale implementation efforts should consider pre-implementation factors. The findings from this study are consistent with McHugh and Barlow's (2010) examination of the implementation of seven evidence-based psychological interventions and their conclusion that the pre-implementation organizational context should be assessed. McHugh and Barlow found that the successfully disseminated programs included a needs and barriers assessment prior to implementation. Knowing about an organization's strengths and weaknesses allows implementers to anticipate any implementation difficulties and plan accordingly.

Program Usage

Training in Triple P includes attending a 2-3 day training course (depending on level), reviewing and studying intervention material independently, attending a day-long competency and feedback session, and completing accreditation requirements (Prinz et al., 2009). In this study, the majority of trained service providers who participated reported that they had delivered the Triple P program to parents after having completed training. Participants in the knowledge transfer session commented that if they had the opportunity to use the program shortly after training, they were more likely to use it. Although it is encouraging that the preponderance of service providers reported having used the program, over a quarter of the trained participants stated they had not used Triple P. These rates of use are slightly higher than those found in a large-scale randomized trial of Triple P in which 37% of trained service providers did not use the

program (Sanders, Prinz, & Shapiro, 2009). Trained nonusers result in additional costs due to the fees associated with training and lost work hours while attending the training (Sanders et al., 2009). Agencies choose to adopt evidence-based programs and have their service providers accordingly trained in order to enhance services as usual and improve client outcomes. Many factors may encourage or interfere with staff's usage of an evidence-based program. For example, additional information provided in the comments section of the survey and at the knowledge transfer session indicated that service providers were sometimes trained in the wrong level of Triple P and therefore the training was not relevant for their client populations. Triple P is unusual in having different levels and consequently as the program becomes more familiar in Ontario, this particular problem is likely to diminish.

Within each agency, the more service providers perceived that they had adequate office space and agency characteristics that facilitated the implementation of Triple P, the more likely they were to report that they had used the program. These results are consistent with previous findings that positive organizational climate is associated with longer-term program use in mental health agencies serving children (Glisson, Schoenwald, Kelleher, Landsverk, Hoagwood, Mayberg, et al., 2008) and provide information on parenting programs in particular. Because the original subscales were very highly correlated, a composite score for the Factors Related to Program Implementation measure was created (Tabachnick & Fidell, 2007). Thus, it was not possible to determine which agency characteristic variable had the strongest association with usage. To identify the precise agency characteristics that facilitate implementation, more psychometrically sound measures will need to be developed. Recommendations to increase usage rates may include fostering a supportive organizational climate, providing adequate office

space, and promoting service providers' investment in the program and adequate supervision (Barwick et al., 2005; Fixsen et al., 2005).

Anecdotal information from the knowledge transfer session also indicated that organizations that had formal adoption and implementation plans were able to implement the program with greater ease. Prior to implementation, having organized resources, as part of a supportive organizational environment, increases the likelihood of adequate implementation, rather than trying to find solutions to implementation problems post-hoc (Fixsen et al., 2005). Organizational support and administrative understanding of the program may be critical in effective promotion of the program to parents. As parents do not rate parenting classes as a desirable option to deal with children's mental health problems (Shanley, Reid, & Evans, 2008), organizations that are prepared prior to and during the implementation phase might be able to more adequately address parents' concerns about this type of intervention. It is also imperative that a sufficient number of employees receive training so that there is a community of service providers that can offer each other support and guidance throughout the implementation process as well as to sustain the program over a longer period of time and survive a certain amount of staff turnover. In the case of smaller agencies that cannot send a large number of staff for training or agencies that are remotely located and may not have the opportunity to liaise with neighbouring organizations, alternative communication strategies such as telehealth networks or teleconferencing may be considered (Mazzucchelli & Sanders, 2010).

Non-usage. Preliminary findings have indicated that service providers are less likely to use a parenting program if they have lower levels of confidence delivering the program and consulting with parents and have difficulties incorporating the program into their workloads (Sanders et al., 2009). Subsequent investigations can expand these findings and explore

additional alternative explanations for non-usage. For example, service providers may not have had the opportunity to use the program, may have used another evidence-based parenting program, may have delivered services as usual, or may not have worked with parents since training (Asgary-Eden & Lee, 2011). These descriptive findings on non-usage might also help inform future studies examining which strategies prior to, during, and after training are more likely to engage service providers who are reluctant to adopt evidence-based interventions (Forehand, Dorsey, Jones, Long, & McMahon, 2010).

Adherence

In this study, adherence was measured by asking service providers to rate how many components from the manuals' session checklists they had offered parents. To increase accurate recall, they were only asked to rate the last session they had offered and to use their session notes or checklists. This self-report method was employed, instead of external ratings of observed sessions, due to the prohibitively high costs that would have been required to reach a large number of agencies that were widely dispersed across the province. Past studies have found self-reported adherence to be highly associated with observational ratings (Fagan, Hanson, Hawkins, & Arthur, 2008). As implementation research is at an early stage of development, there are a limited number of measures available to assess this process (Stead, Stradling, MacNeil, MacKintosh, & Minty, 2007). A few program developers interested in evaluating the implementation of their evidence-based programs have created measures specific to their programs (e.g., Forgatch, Patterson, & DeGarmo, 2005; Schoenwald, Henggeler, & Edwards, 1998; Webster-Stratton, 2006). These include checklists for session content and some also take therapeutic process principles into account as well (Webster-Stratton & Herman, 2010). As of yet, there are no validated measures of adherence available for the Triple P program. However,

the method used for assessing adherence rates in the current study has also been used for other parenting programs (Fagan et al., 2008). An important next research step is the validation of adherence measures to ensure study results are valid and quality of implementation is accurately assessed (Forgatch et al., 2005).

One challenge in developing such measures is ensuring they are both valid and feasible to use in routine care (Schoenwald, Garland, Chapman, Frazier, Sheidow, & Southam-Gerow, 2011). Schoenwald and colleagues proposed that an efficient measure of adherence to use in implementation efforts must have clinical and administrative utility, may be used for different purposes including training and quality assurance, and needs to be easily interpretable. Based on these criteria, results from this survey suggest that session checklists are a feasible way of collecting adherence data in organizations implementing evidence-based programs.

Despite the increasing interest in program adherence, there has surprisingly been little research on the topic (Perepletchikova, Hilt, Chereji, & Kazdin, 2009; Schoenwald et al., 2011). In the current study, self-reported adherence rates were comparable to the rates found in a preliminary study of another evidence-based parenting program (Stern, Alaggia, Watson, & Morton, 2008). Over a third of the service providers had adherence rates of 100%, indicating they believe they deliver the program exactly as intended by the program developers. The majority of the service providers in this study believed they had adequate training in Triple P. Service providers who did not feel they required additional training in Triple P reported higher adherence to the program.

There is a current debate in the literature about the ideal balance between adapting evidence-based programs to meet the needs of clients and strictly adhering to program protocols (Fixsen et al., 2005). Programs that have been implemented with higher adherence result in

better client outcomes (Elliott & Mihalic, 2004; Schoenwald, Carter, Chapman, & Sheidow, 2008). Consequently, program developers advocate that the content of programs must remain the same as originally developed and tested by maintaining high adherence (Webster-Stratton & Herman, 2010). A pilot study recently examined outcomes when modifications were made to an empirically validated parenting program offered in community settings (Bohr, Halpert, Chan, Lishak, & Brightling, 2010). Program modifications such as omitting homework and allowing children to attend with their parents were associated with positive changes such as decreases in parental stress and increases in parental confidence and ability to foster cognitive growth in their children (Bohr et al., 2010). However, the program's primary goal of increasing maternal sensitivity was not achieved (Bohr et al., 2010). This study highlights the importance of systematically examining modifications to evidence-based program protocols in real world settings.

Flexibility in delivery. Interestingly, some participants indicated in the comment section of the survey that they made modifications to the way they delivered the program (such as prolonging and co-facilitating sessions) without omitting components. This is consistent with the current discussion in the literature that there is a need to balance strict adherence to an evidence-based program's protocol and the need to tailor the protocol to meet individual clients' needs (Ogden, Hagen, Askeland, & Christensen, 2009). It also confirms that some service providers are following program developers' recommendations to be flexible in their delivery format (Sanders, 2010; Webster-Stratton & Herman, 2010). It would be interesting for future research to explicitly examine how many service providers are engaging in these types of delivery modifications and which modifications have the most important impact on service delivery. Mazzucchelli and Sanders (2010) recently described acceptable modifications to Triple P delivery that promoted

flexibility rather than strict, rote delivery. For example, service providers could choose which parenting strategies are practiced in which settings and for which problematic behaviours by having collaborative discussions with parents and based on individual formulations derived from the pre-treatment assessments. Other program developers have also made suggestions for delivering evidence-based programs such as individualizing various props used to illustrate examples, modifying language according to developmental level, and changing the program structure according to attention abilities and social skills (Beidas, Benjamin, Puleo, Edmunds, & Kendall, 2010). Offering service providers delivery options (while simultaneously encouraging adherence to program protocol) allows service providers to feel less constrained by the program, encourages them to use clinical judgment with their clients, and fosters professional self-efficacy.

Non-adherence. Although self-reported adherence rates in the current study were by and large high, almost two thirds of service providers omitted at least one program component. The most common reasons for not adhering to the program objectives were insufficient time in session and lack of relevance for the particular parents. This information can help guide clinical supervisors working with service providers. Supervisors can assist service providers by teaching time management skills and by suggesting ways of presenting material to various types of parents with differing needs. Future studies can expand these findings by examining which components are more often left out by service providers and whether there are trends in omissions. For example, service providers may be more likely to skip role playing or reviewing homework as compared to watching video clips (Stern et al., 2008). This information would also prove helpful in making targeted recommendations for trainers and supervisors

Variables associated with adherence. Evidence-based interventions for families and parents are starting to be widely adopted and as a next step, large scale implementations need to be systematically studied (Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001; Ogden, Forgatch, Askeland, Patterson, & Bullock, 2005).

In this study, service providers' self-reported adherence levels varied according to agency characteristics so that in agencies in which agency characteristics were reported as barriers, only more experienced service providers reported higher adherence rates. Less experienced service providers who perceived their agency to have poorer atmospheres reported the lowest adherence. In agencies in which agency characteristics were assets, years of experience had little effect on adherence. Therefore, to get a full understanding of the links between agency characteristics and adherence, experience must also be considered. These results extend the previous findings that the successful implementation of evidence-based programs, including a parenting program, is associated with strong perceived administrative support, formal organizational commitment to the program and staffing stability (Elliott & Mihalic, 2004). Because the measure used in the current study was a composite measure, it was not possible to determine which agency characteristics had the greatest association with adherence. This unfortunately limits the comparability of the results to research using separate scales. Future studies can build on these findings by determining the relative importance of various agency characteristics on adherence to parenting programs. Implementation models have not yet determined whether some variables are of greater importance than others in a given implementation context (Aarons et al., 2011). The current findings provide some insight into the necessity of examining experience in the context of agency characteristics in organizations serving children and families.

However, as the current study was cross-sectional, inferences about causality are premature. Longitudinal studies are required to determine whether adherence rates can be improved by enhancing administrative support and buy-in for the program by ensuring managers have a good understanding of the value of what the program offers parents, so that they provide the necessary training for service providers, and ensure staff have the time to implement the program. Participants in the knowledge transfer session indicated that it would be helpful for service providers to have an opportunity to communicate with each other about the program to increase motivation and share flexible delivery options. Moreover, they believed it would be helpful for supervisors to have a proficient understanding of the program so that they can offer adequate and relevant support to service providers.

Supervision

An important point highlighted during the discussion at the knowledge transfer session is the importance of sufficient and ongoing supervision to facilitate high quality implementation. Supervisors can first start providing support to service providers prior to training by adequately preparing them. Service providers who receive preparatory supervision are more likely to look forward to the training, to be motivated to learn, and to be ready to participate (Sanders & Murphy-Brennan, 2010). Triple P is based on a self-regulatory model for both parents and service providers (Mazzucchelli & Sanders, 2010). This includes skills training to promote self-management skills such as self-selection of goals for intervention, self-monitoring, self-evaluation, and self-reinforcement (Mazzucchelli & Sanders, 2010). Studies of other evidence-based programs have found that supervisors' leadership and support are facilitating factors for implementing new programs (Roman & Johnson, 2002; Stern et al., 2008; Whitley, Gingerich,

Lutz, & Mueser, 2009) and supervisors' focus on program adherence has been found to predict greater therapist adherence (Schoenwald, Sheidow, & Chapman, 2009).

Despite having learnt self-regulatory practices during training, service providers, especially at the initial stages of implementation, require supervisory support to consolidate what they have learnt and problem-solve when first using the program. However, this may not always be available. For example, anecdotal information from participating agencies indicated that not all supervisors were trained in Triple P and therefore providing supervision for the program was challenging. A major concern that arose during the knowledge transfer session was that it was unclear how best to support supervisors so that they could provide adequate supervision for their staff. Clinical psychologists may play a role in providing this supervision or in being consultants to supervisors to improve their practices. However, unfortunately, although supervision makes up anywhere from 36-71% of clinical psychologists' professional activities depending on workplace setting (Norcross, Karpiak, & Santoro, 2005), there is very little empirical information on evidence-based supervisory practices. The effectiveness of supervisory processes and techniques are in strong need of empirical examination (Falender & Shafranske, 2010).

Multiple Perspectives

Few studies have examined the perspectives of managers in child and youth service delivery organizations and to my knowledge, only one (Mihalic & Irwin, 2003) has considered their perceptions specifically with regards to the implementation of evidence-based parenting programs. Because managers' are required to make systemic changes with regards to staffing, budgets, and space, they require a broader understanding of how the agency functions and service delivery patterns. In this study, managers' reports of agency characteristics including organizational climate, funding availability, staff turnover, and supervisors' and service

providers' motivation to use Triple P were associated with service providers' self-reported adherence to the program protocol. Consistent with their roles, managers were able to tell us on a larger scale how aspects of their organizations were related to service delivery (Reid & Brown, 2008). Interestingly however, their reports were not associated with service providers' usage of Triple P. On the other hand, service providers were able to tell us what variables were associated with usage by colleagues in their agencies (office space and agency characteristics). Therefore, service providers' reports were associated with agency-wide usage whereas managers' reports were related to agency-wide adherence. One possible explanation for this finding is that managers may be informed about barriers to adequately delivering a program and are approached for solutions by program users (for example, requests for additional personnel to help deliver the program, complaints about inadequate supervision or lack of necessary material). They may however be less informed about service providers' in-session activities if not specifically approached and consequently may have less information on non-users who do not contact them regarding barriers to implementation.

The majority of managers' and service providers' reports of the variables were similar. One explanation may be that this was related to the finding that the greater part of the agencies were supportive of the decision to adopt the Triple P, regardless of whether it was their own initiative or whether it was imposed by government. As a result, the general attitude towards Triple P was positive. It would be interesting for future studies to examine reported barriers in agencies in which the adoption of the program is imposed and in which there is reluctance to accept the program. For example, in these cases, staff motivation, buy-in, and prioritization of the program might be more of a hindrance to implementation than funding.

When psychologists work as evaluation, implementation, or research consultants in community agencies, it is important for them to remember the impact that managers have on the activities and priorities of the organizations. It is therefore worth investing additional time at the onset to ensure they are committed to the project and facilitate the staff's participation. For example, managers can be briefed prior to staff training about the basic tenets of the intervention, the required organizational and financial support, as well as post-training supervision (Sanders & Murphy-Brennan, 2010). As the therapeutic relationship between a therapist and a client enhances intervention outcomes (Norcross & Wampold, 2011), creating rapport and a professional alliance with administrators may ease the consultative process, instill openness to new ideas, and increase acceptance of feedback.

Conclusion

Overall, the findings from the current study provide data on the implementation of an evidence-based parenting program in community agencies. Implementation models specifically developed with children's mental health agencies and public sector social services extend previous models developed for the medical and business sectors. Consistent with Aarons and colleagues' (2011) recently published implementation model, the current study found evidence of the importance of agency characteristics, administrative support, and service provider characteristics during the implementation phase. The findings from the current study provide preliminary empirical support for this model. This study also demonstrates the expanding role psychology can play in service evaluations in healthcare and social services.

In recent times, psychologists have expanded their scope of practice to target the psychosocial and behavioural factors related to physical health and increasingly work as part of interdisciplinary teams (Bray, 2010). As other professions also provide behavioural and

psychopharmaceutical interventions for psychological disorders (Baker, McFall, & Shoham, 2009), clinical psychology has the opportunity to shift into playing a more active role in healthcare management and service delivery. We can advocate for the routine implementation of evidence-based and cost-effective psychological interventions and promote their use with decision-makers (Baker et al., 2009), increasing the impact of our profession.

The historical impact of our profession on the public's wellbeing has been limited by a reluctance to transfer our knowledge and skills to larger groups in non-traditional practice settings and our ambivalence towards the role of science (Baker et al., 2009). In contrast, the new wave of clinical psychology can increasingly use technology, the media and our working relationships with other mental health professionals to increase our reach (Kazdin & Blase, 2011). The evidence-based principles we regularly apply with individual clients can also be applied to larger organizations. For example, we can use sound methodology to conduct assessments and program evaluations, base practice recommendations on empirical findings, increase motivation, and promote assertive communication skills. Findings from the current study demonstrate how psychological principles and research methodology can assess service delivery patterns, determine areas in need of further assistance or development, and translate research into high quality practice. We can apply our skills on a larger playing field by promoting our empirical understanding of human behaviour and interpersonal dynamics on a systems level, rather than only on an individual basis. Individual psychotherapy is not likely to be able to meet the public's mental health needs or to reduce the prevalence and incidence of mental illness (Kazdin & Blase, 2011). Psychology's involvement in larger systems can increase our visibility to the public and the impact our profession has on the general population's wellbeing.

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Appendix A

Factors Related to Program Implementation (FRPI) subscales

****These FRPI subscales were completed by administrators, supervisors, and service providers*

FRPI Ideal Agency Characteristics subscale

Throughout the process of implementing Triple P, how much have each of the following factors been an asset or a barrier?

1	2	3	4	5
Significant Barrier	Somewhat of A Barrier	Neither Asset Nor Barrier	Somewhat of An Asset	Significant Asset
1. Key staff participation in planning, decision making, and problem-solving with respect to Triple P 2. Administrative support and leadership (moral support) for Triple P 3. Open lines of communication between agency administrators, program staff, and service providers with respect to Triple P 4. Fit between Triple P and other agency programs and goals 5. Cohesiveness and collaboration among all key stakeholders in Triple P program 6. Clarity of Triple P goals and procedures 7. Clear lines of authority with respect to the Triple P program 8. Structural stability (lack of Triple P staff turnover) 9. Program supervisor or “champion” for Triple P 10. Agency facilities for delivering Triple P 11. Sufficient financial support for Triple P 12. Sufficient resources allocated for Triple P 13. Political climate for delivering Triple P				

FRPI Ideal Staff Characteristics subscale

Throughout the process of implementing Triple P, how much have each of the following factors been an asset or a barrier?

1	2	3	4	5
Significant Barrier	Somewhat of A Barrier	Neither Asset Nor Barrier	Somewhat of An Asset	Significant Asset

1. Service providers' buy-in/support for Triple P
2. Service providers' motivation for Triple P
3. Service providers' skill and knowledge (quality of delivery) of Triple P
4. Service providers have time to implementation of Triple P
5. Service providers prioritize the Triple P program
6. Hiring pool available
7. Communication with other Triple P service providers, staff, and supervisors

FRPI Ideal Champion Characteristics subscale

Throughout the process of implementing Triple P, how much have each of the following factors been an asset or a barrier?

1	2	3	4	5
Significant Barrier	Somewhat of A Barrier	Neither Asset Nor Barrier	Somewhat of An Asset	Significant Asset

1. Supervisor's buy-in/support for Triple P
2. Supervisor's motivation for Triple P
3. Supervisor's skill and knowledge of Triple P (quality of supervision)
4. Supervisor's time to devote to Triple P coordination

Appendix B

FRPI Pre-Planning questions for administrators

****This was completed by administrators*

FRPI Pre-Planning questions

1. Prior to implementation, how ready (e.g., had funding, resources, commitment) was your agency to implement Triple P?

Not ready A little ready Somewhat ready Moderately ready Very ready

2. How open was your agency to new ideas?

Not open A little open Somewhat open Moderately open Very open

3. How much resistance from key parties was encountered in adopting Triple P?

No resistance

A little resistance

Some resistance

Moderate resistance

A great deal of resistance

4. What was the primary motivation for adopting Triple P (please chose one)?

a) Local identification of a problem that could be addressed by Triple P; local officials sought external funding for it.

b) Local officials applied for funding. The specific program implemented did not really matter (even though the program may have addressed an important problem); it was the availability of funding that was most important.

c) An external agency asked local officials to implement Triple P; local officials had a prior interest in the issue/problem.

d) An external agency asked local officials to implement Triple P; local officials either passively acquiesced or reluctantly agreed to adopt Triple P.

Appendix C

Organizational Readiness for Change (ORC) subscales

ORC Offices subscale

**** This subscale was completed by administrators, supervisors, and service providers*

How strongly do you agree or disagree with each of the following statements?

1	2	3	4	5
Disagree strongly	Disagree	Uncertain	Agree	Agree strongly

1. Offices and equipment are adequate for activities related to Triple P
2. Facilities here are adequate for conducting Triple P groups
3. Offices here allow the privacy needed for Triple P sessions with individual parents
4. The agency provides a comfortable reception/waiting area for Triple P clients

ORC Training Needs subscale (service provider version)

**** This subscale was completed by service providers*

How strongly do you agree or disagree with each of the following statements?

1	2	3	4	5
Disagree strongly	Disagree	Uncertain	Agree	Agree strongly

In delivering Triple P, I need more training for:

1. Assessing client problems and needs
2. Increasing parent participation in Triple P
3. Monitoring parent progress in Triple P
4. Improving rapport with parents during Triple P
5. Improving parent thinking and problem solving skills
6. Improving parent behavioral management
7. Improving parent cognitive focus during sessions
8. Using computerized client assessments

ORC Training Needs subscale (administrator and supervisor version)

*** *This subscale was completed by administrators and supervisors*

How strongly do you agree or disagree with each of the following statements?

1	2	3	4	5
Disagree strongly	Disagree	Uncertain	Agree	Agree strongly

In delivering Triple P, my service providers need more training for:

1. Assessing client problems and needs
2. Increasing parent participation in Triple P
3. Monitoring parent progress in Triple P
4. Improving rapport with parents during Triple P
5. Improving parent thinking and problem solving skills
6. Improving parent behavioral management
7. Improving parent cognitive focus during sessions
8. Using computerized client assessments

Appendix D

Additional questions for administrators, supervisors, and service providers

*** *This was completed by administrators, supervisors, and service providers*

Additional questions (based on Mihalic & Irwin, 2003)

1. How much of an asset or barrier to adopting Triple P is the availability of Triple P training?

1	2	3	4	5
Significant Barrier	Somewhat of A Barrier	Neither Asset Nor Barrier	Somewhat of An Asset	Significant Asset

2. How much of an asset or barrier to adopting Triple P was the quality of the training workshops?

1	2	3	4	5
Significant Barrier	Somewhat of A Barrier	Neither Asset Nor Barrier	Somewhat of An Asset	Significant Asset

3. How much of an asset or barrier to adopting Triple P is ongoing communication with Triple P International?

1	2	3	4	5
Significant Barrier	Somewhat of A Barrier	Neither Asset Nor Barrier	Somewhat of An Asset	Significant Asset

Appendix E

Triple P Session Checklists

(*Note: service providers were asked to complete the session checklist only for the most **recent** session they administered.)

What was the most recent Triple P program you delivered? ☐ Level 4 Group
☐ Level 4 Standard
☐ Level 5 Enhanced
☐ I have not delivered Triple P yet

Level 4 Group Triple P

When did your last offer a Level 4 group session? _____
Month Year

Please indicate whether you did the following activities **BASED ON THE LAST** Level 4 group session you delivered. If available, please refer to your session notes or session checklists.

Session 1

For session 1, did you do the following?

- | | |
|---|--|
| 1. Introduce yourself and the program | ☐ Yes ☐ No |
| 2. Collect completed "Assessment Booklet One" | ☐ Yes ☐ No |
| 3. Set the agenda | ☐ Yes ☐ No |
| 4. Exercise 1: Setting basic ground rules for the group | ☐ Yes ☐ No |
| 5. Exercise 2: Getting to know you | ☐ Yes ☐ No |
| 6. Exercise 3: What would you like to get out of the group sessions | ☐ Yes ☐ No |
| 7. Introduce positive parenting | ☐ Yes ☐ No |
| 8. Show video part 1: What is positive parenting? | ☐ Yes ☐ No |
| 9. Exercise 4: What is positive parenting? | ☐ Yes ☐ No |
| 10. Introduce factors known to influence children's behaviour | ☐ Yes ☐ No |
| 11. Show video part 2: Causes of child behaviour problems | ☐ Yes ☐ No |
| 12. Exercise 5: Identifying causes of child behaviour problems | ☐ Yes ☐ No |
| 13. Exercise 6: What skills should we encourage in children? | ☐ Yes ☐ No |
| 14. Exercise 7: Setting goals for change | ☐ Yes ☐ No |
| 15. Introduce monitoring of children's behaviour | ☐ Yes ☐ No |
| 16. Show video part 2: Goals for change, keeping track | ☐ Yes ☐ No |
| 17. Exercise 8: Keeping track | ☐ Yes ☐ No |
| 18. Review main points covered in session | ☐ Yes ☐ No |
| 19. Explain the importance of homework | ☐ Yes ☐ No |
| 20. Explain homework task: Monitor one or two child behaviours | ☐ Yes ☐ No |
| 21. Outline next session | ☐ Yes ☐ No |

Session 2*For session 2, did you do the following?*

- | | |
|---|--|
| 1. Present the agenda for the session | ☐ Yes ☐ No |
| 2. Review the previous session | ☐ Yes ☐ No |
| 3. Review the week's homework | ☐ Yes ☐ No |
| 4. Provide a rationale for strategies for promoting children's development | ☐ Yes ☐ No |
| 5. Introduce strategies for developing positive relationships with children | ☐ Yes ☐ No |
| 6. Show video part 3: Promoting children's development | ☐ Yes ☐ No |
| 7. Exercise 1: Ideas for quality time | ☐ Yes ☐ No |
| 8. Exercise 2: Things to talk about | ☐ Yes ☐ No |
| 9. Exercise 3: Ways to show affection | ☐ Yes ☐ No |
| 10. Introduce strategies for encouraging desirable behaviour | ☐ Yes ☐ No |
| 11. Show video part 3: Encouraging desirable behaviour | ☐ Yes ☐ No |
| 12. Exercise 4: How to give descriptive praise | ☐ Yes ☐ No |
| 13. Exercise 5: Ways to give attention | ☐ Yes ☐ No |
| 14. Exercise 6: Ideas for engaging activities | ☐ Yes ☐ No |
| 15. Introduce strategies for teaching new skills and behaviours | ☐ Yes ☐ No |
| 16. Show video part 3: Teaching new skills and behaviours | ☐ Yes ☐ No |
| 17. Exercise 7: Ways to set a good example | ☐ Yes ☐ No |
| 18. Exercise 8: Ideas for using incidental teaching | ☐ Yes ☐ No |
| 19. Exercise 9: Ideas for using Ask, Say, Do | ☐ Yes ☐ No |
| 20. Exercise 10: Setting up a behaviour chart | ☐ Yes ☐ No |
| 21. Review the main points covered in session | ☐ Yes ☐ No |
| 22. Explain homework task: Practice and monitor the use of two strategies | ☐ Yes ☐ No |
| 23. Explain homework task: Check ideas for rewards with child | ☐ Yes ☐ No |
| 24. Explain homework task: Draw up behaviour chart | ☐ Yes ☐ No |
| 25. Explain homework task: Try to continue monitoring child behaviour | ☐ Yes ☐ No |
| 26. Outline next session | ☐ Yes ☐ No |

Session 3*For session 3, did you do the following?*

- | | |
|---|--|
| 1. Present the agenda for the session | ☐ Yes ☐ No |
| 2. Review the previous session | ☐ Yes ☐ No |
| 3. Review the week's homework | ☐ Yes ☐ No |
| 4. Provide a rationale for strategies for managing misbehaviour | ☐ Yes ☐ No |
| 5. Introduce ground rules, directed discussion and planned ignoring | ☐ Yes ☐ No |
| 6. Show video part 4: Managing misbehaviour, ground rules, | |

- | | | |
|---|------------------------------|-----------------------------|
| directed discussion and planned ignoring | ☐ Yes | ☐ No |
| 7. Exercise 1: Declining ground rules | ☐ Yes | ☐ No |
| 8. Exercise 2: Ideas for using directed discussion | ☐ Yes | ☐ No |
| 9. Exercise 3: Ideas for using planned ignoring | ☐ Yes | ☐ No |
| 10. Introduce clear, calm instructions and logical consequences | ☐ Yes | ☐ No |
| 11. Show video part 4: Clear, calm instructions; Logical consequences | ☐ Yes | ☐ No |
| 12. Exercise 4: Ideas for giving clear, calm instructions | ☐ Yes | ☐ No |
| 13. Exercise 5: Choosing logical consequences | ☐ Yes | ☐ No |
| 14. Introduce quiet time and time-out | ☐ Yes | ☐ No |
| 15. Show video part 4: Quiet time; Time-out | ☐ Yes | ☐ No |
| 16. Exercise 6: Preparing to use quiet time | ☐ Yes | ☐ No |
| 17. Exercise 7: Preparing to use time-out | ☐ Yes | ☐ No |
| 18. Introduce the compliance routine | ☐ Yes | ☐ No |
| 19. Exercise 8: Using the compliance routine | ☐ Yes | ☐ No |
| 20. Introduce the behaviour correction routine | ☐ Yes | ☐ No |
| 21. Exercise 9: Using the behaviour correction routine | ☐ Yes | ☐ No |
| 22. Exercise 10: Consequences for behaviour charts | ☐ Yes | ☐ No |
| 23. Review the main points covered in session | ☐ Yes | ☐ No |
| 24. Explain homework task: Decide on and discuss ground rules | ☐ Yes | ☐ No |
| 25. Explain homework task: Practice and monitor use of strategies | ☐ Yes | ☐ No |
| 26. Explain homework task: Put behaviour chart into practice | ☐ Yes | ☐ No |
| 27. Explain homework task: Try to continue monitoring child behaviour | ☐ Yes | ☐ No |
| 28. Outline next session | ☐ Yes | ☐ No |

Session 4

For session 4, did you do the following?

- | | | |
|--|------------------------------|-----------------------------|
| 1. Present the agenda for the session | ☐ Yes | ☐ No |
| 2. Review the previous session | ☐ Yes | ☐ No |
| 3. Review the week's homework | ☐ Yes | ☐ No |
| 4. Introduce family survival tips | ☐ Yes | ☐ No |
| 5. Show video part 4: Family survival tips | ☐ Yes | ☐ No |
| 6. Exercise 1: Taking care of yourself | ☐ Yes | ☐ No |
| 7. Exercise 2: Identifying high-risk parenting situations | ☐ Yes | ☐ No |
| 8. Provide a rationale for planned activities | ☐ Yes | ☐ No |
| 9. Introduce the steps of the planned activities routine | ☐ Yes | ☐ No |
| 10. Use an example to illustrate an entire planned activities routine | ☐ Yes | ☐ No |
| 11. Exercise 3: Developing a planned activities routine | ☐ Yes | ☐ No |
| 12. Summarize planned activities | ☐ Yes | ☐ No |
| 13. Explain the purpose and format of the telephone sessions | ☐ Yes | ☐ No |
| 14. Exercise 4: Choosing a time | ☐ Yes | ☐ No |
| 15. Review the main points covered in session | ☐ Yes | ☐ No |
| 16. Explain homework task: Develop and try out planned activities routine for two high-risk situations and monitor the steps | | |

- completed ___ Yes ___ No
17. Explain homework task: Try to continue monitoring child behaviour ___ Yes ___ No
18. Remind parents to be prepared for telephone session ___ Yes ___ No

Sessions 5-7 (telephone sessions)

For sessions 5-7 (the telephone sessions), did you do the following?

- | | |
|--|----------------|
| 1. Ask parent for their session goals | ___ Yes ___ No |
| 2. Discuss the questionnaire data | ___ Yes ___ No |
| 3. Check the parent's monitoring | ___ Yes ___ No |
| 4. Provide an integrating summary | ___ Yes ___ No |
| 5. Previous session review | ___ Yes ___ No |
| 6. Ask the parent to list their practice tasks | ___ Yes ___ No |
| 7. Ask what worked (at least two positive points) | ___ Yes ___ No |
| 8. Ask what they could have done differently | ___ Yes ___ No |
| 9. Discuss other issues the parent wants to cover | ___ Yes ___ No |
| 10. Prompt parent to review the main points covered in session | ___ Yes ___ No |
| 11. Prompt parent to note down their practice tasks for the week | ___ Yes ___ No |
| 12. Prompt parent to list any material they feel they need to review | ___ Yes ___ No |

Session 8

For session 8, did you do the following?

- | | |
|---|----------------|
| 1. Present the agenda for the session | ___ Yes ___ No |
| 2. Exercise 1: Setting the agenda | ___ Yes ___ No |
| 3. Review telephone sessions | ___ Yes ___ No |
| 4. Review the week's homework | ___ Yes ___ No |
| 5. Exercise 2: Reviewing the use of positive parenting strategies | ___ Yes ___ No |
| 6. Review suggestions for phasing out the program | ___ Yes ___ No |
| 7. Exercise 3: Identifying changes that have been made | ___ Yes ___ No |
| 8. Discuss obstacles to the maintenance of change | ___ Yes ___ No |
| 9. Review guidelines for maintaining change | ___ Yes ___ No |
| 10. Review planned activities | ___ Yes ___ No |
| 11. Exercise 4: Planning for future high-risk situations | ___ Yes ___ No |
| 12. Exercise 5: Identifying future high-risk situation | ___ Yes ___ No |
| 13. Exercise 6: Independent problem solving | ___ Yes ___ No |
| 14. Exercise 7: Identifying future goals | ___ Yes ___ No |
| 15. Exercise 8: Completing Assessment Booklet Two | ___ Yes ___ No |
| 16. Close the session | ___ Yes ___ No |
| 17. Exercise 9: Thinking about the program | ___ Yes ___ No |
| 18. Hand out certificates | ___ Yes ___ No |
| 19. Celebrate the group's achievement | ___ Yes ___ No |

Standard Level 4 Triple P

When did you last offer a session of Standard Level 4? _____
 Month Year

*Please indicate whether you did the following activities **BASED ON THE LAST** time you delivered Standard Level 4 session with a family. If available, please refer to your session notes or session checklists.*

Session 1

For session 1, did you do the following?

- | | |
|---|----------------|
| 1. Introduce yourself | ___ Yes ___ No |
| 2. Set the agenda | ___ Yes ___ No |
| 3. Intake interview -- Exercise 1: Sharing information | ___ Yes ___ No |
| 4. Introduce monitoring of children's behaviour | ___ Yes ___ No |
| 5. Decide on target behaviours to monitor | ___ Yes ___ No |
| 6. Exercise 2: Choosing what to monitor | ___ Yes ___ No |
| 7. Devise a system for keeping track of target behaviours | ___ Yes ___ No |
| 8. Devise a system for keeping track of target behaviours | ___ Yes ___ No |
| 9. Exercise 3: Keeping track | ___ Yes ___ No |
| 10. Review the session | ___ Yes ___ No |
| 11. Explain homework task: Monitor the target child behaviours | ___ Yes ___ No |
| 12. Ask parents to read session 2 in "Every parent's family workbook" | ___ Yes ___ No |
| 13. Ask parents to bring "Assessment Booklet One" for next session | ___ Yes ___ No |
| 14. Ask parents to bring child to next session | ___ Yes ___ No |
| 15. Outline the content for the next session | ___ Yes ___ No |

Session 2

For session 2, did you do the following?

- | | |
|--|----------------|
| 1. Present the agenda for the session? | ___ Yes ___ No |
| 2. Review the previous session? | ___ Yes ___ No |
| 3. Review the week's homework? | ___ Yes ___ No |
| 4. Interview the child? | ___ Yes ___ No |
| 5. Complete a mental status examination? | ___ Yes ___ No |
| 6. Exercise 1: Interacting with your family (observation of parent-child interaction)? | ___ Yes ___ No |
| 7. Debrief at completion of observation task? | ___ Yes ___ No |
| 8. Formulate hypotheses? | ___ Yes ___ No |
| 9. Set the child up with an activity? | ___ Yes ___ No |

- | | |
|---|--|
| 10. Explain the feedback process? | ☐ Yes ☐ No |
| 11. Exercise 2: Sharing assessment findings? | ☐ Yes ☐ No |
| 12. Discuss the data from each information source (interview, questionnaires, monitoring, observation) and keep a record of the baseline rates of problem behaviours? | ☐ Yes ☐ No |
| 13. Provide an integrating summary? | ☐ Yes ☐ No |
| 14. Outline the purpose of discussing causes of child behaviour problems? | ☐ Yes ☐ No |
| 15. Introduce causes of child behaviour problems? | ☐ Yes ☐ No |
| 16. Exercise 3: Identifying causes of child behaviour problems? | ☐ Yes ☐ No |
| 17. Provide an integrating summary? | ☐ Yes ☐ No |
| 18. Exercise 4: What skills should we encourage in children? | ☐ Yes ☐ No |
| 19. Exercise 5: Setting goals for change? | ☐ Yes ☐ No |
| 20. Introduce the format of Standard Triple P? | ☐ Yes ☐ No |
| 21. Negotiate an intervention plan? | ☐ Yes ☐ No |
| 22. Review the main points covered in session | ☐ Yes ☐ No |
| 23. Explain homework task: Monitor the target child behaviours | ☐ Yes ☐ No |
| 24. Ask parents to read session 3 in "Every parent's family workbook" | ☐ Yes ☐ No |
| 25. Outline next session | ☐ Yes ☐ No |

Session 3

For session 3, did you do the following?

- | | |
|--|--|
| 1. Present the agenda for the session? | ☐ Yes ☐ No |
| 2. Review the previous session? | ☐ Yes ☐ No |
| 3. Review the week's homework? | ☐ Yes ☐ No |
| 4. Introduce the principle of positive parenting? | ☐ Yes ☐ No |
| 5. Exercise 1: What is positive parenting? | ☐ Yes ☐ No |
| 6. Provide a rationale for strategies for promoting children's development? | ☐ Yes ☐ No |
| 7. Provide a rationale for developing positive relationships with children? | ☐ Yes ☐ No |
| 8. Introduce quality time and complete Exercise 2: Ideas for quality time? | ☐ Yes ☐ No |
| 9. Introduce conversing with children and complete Exercise 3: Things to talk about? | ☐ Yes ☐ No |
| 10. Introduce showing affection to children and complete Exercise 4: Ways to show affection? | ☐ Yes ☐ No |
| 11. Provide a rationale for encouraging desirable behaviour? | ☐ Yes ☐ No |
| 12. Introduce descriptive praise and complete Exercise 5: How to give descriptive praise? | ☐ Yes ☐ No |
| 13. Introduce giving attention and complete Exercise 6: Ways to give attention? | ☐ Yes ☐ No |

- | | |
|--|--|
| 14. Introduce engaging activities and complete Exercise 7: Ideas for engaging activities? | ☐ Yes ☐ No |
| 15. Provide a rationale for teaching new skills and behaviours? | ☐ Yes ☐ No |
| 16. Introduce setting a good example and complete Exercise 8: Ways to set a good example? | ☐ Yes ☐ No |
| 17. Introduce incidental teaching and complete Exercise 9: Ideas for using incidental teaching? | ☐ Yes ☐ No |
| 18. Introduce Ask, Say, Do and complete Exercise 10: Ideas for using Ask, Say, Do? | ☐ Yes ☐ No |
| 19. Introduce behaviour charts and complete Exercise 11: Setting up a behaviour chart? | ☐ Yes ☐ No |
| 20. Review the main points covered in session | ☐ Yes ☐ No |
| 21. Explain homework task: Practice and monitor the use of two strategies for promoting children's development | ☐ Yes ☐ No |
| 22. Explain homework task: Check ideas for rewards for behaviour chart with child | ☐ Yes ☐ No |
| 23. Explain homework task: Prepare a behaviour chart | ☐ Yes ☐ No |
| 24. Explain homework task: Monitor the target child behaviours | ☐ Yes ☐ No |
| 25. Ask parents to read session 4 in "Every parent's family workbook" | ☐ Yes ☐ No |
| 26. Outline next session | ☐ Yes ☐ No |

Session 4

For session 4, did you do the following?

- | | |
|---|--|
| 1. Present the agenda for the session? | ☐ Yes ☐ No |
| 2. Review the previous session? | ☐ Yes ☐ No |
| 3. Review the week's homework? | ☐ Yes ☐ No |
| 4. Provide a rationale for strategies for managing misbehavior? | ☐ Yes ☐ No |
| 5. Introduce ground rules and complete Exercise 1: Deciding on ground rules? | ☐ Yes ☐ No |
| 6. Introduce directed discussion and complete Exercise 2: Ideas for using directed discussion? | ☐ Yes ☐ No |
| 7. Introduce planned ignoring and complete Exercise 3: Ideas for using planned ignoring? | ☐ Yes ☐ No |
| 8. Introduce clear, calm instructions and complete exercise 4: Ideas for giving clear, calm instructions? | ☐ Yes ☐ No |
| 9. Introduce logical consequences and complete Exercise 5: Choosing logical consequences? | ☐ Yes ☐ No |
| 10. Introduce quiet time and complete Exercise 6: Preparing to use quiet time? | ☐ Yes ☐ No |
| 11. Introduce time-out and complete Exercise 7: Preparing to use time-out? | ☐ Yes ☐ No |
| 12. Introduce the compliance routine and complete Exercise 8: Using the compliance routine? | ☐ Yes ☐ No |

13. Introduce the behaviour correction routine and complete
Exercise 9: Using the behaviour correction routine? ☐ Yes ☐ No
14. Exercise 10: Consequences for behaviour charts? ☐ Yes ☐ No
15. Review the main points covered in session? ☐ Yes ☐ No
16. Explain homework tasks: Decide on and discuss ground rules? ☐ Yes ☐ No
17. Explain homework tasks: Practice and monitor use of strategies for
managing misbehaviour? ☐ Yes ☐ No
18. Explain homework tasks: Put behaviour chart into practice? ☐ Yes ☐ No
19. Explain homework tasks: Monitor the target child behaviours? ☐ Yes ☐ No
20. Ask parents to read session 5 in "Every parent's family workbook" ☐ Yes ☐ No
21. Outline next session/explain the format of the practice sessions? ☐ Yes ☐ No

Sessions 5, 6, and 7

For sessions 5, 6, and 7 did you do the following?

1. Establish an agenda ☐ Yes ☐ No
2. Review the rules for the practice task ☐ Yes ☐ No
3. Review the parents' goals for the practice task as listed in
Exercise 1: Setting goals for the practice task ☐ Yes ☐ No
4. Check how the parents feel ☐ Yes ☐ No
5. Prompt the parents to complete Exercise 2: Keeping track of what
you do, as part of the practice task ☐ Yes ☐ No
6. Complete a Practice Session Observation Form ☐ Yes ☐ No
7. Exercise 3: Reviewing the practice task using minimal prompting
to help parents identify their strengths and weaknesses ☐ Yes ☐ No
8. Set goals for behaviour change ☐ Yes ☐ No
9. Review/discuss homework tasks (e.g., use of positive parenting
strategies, behaviour chart) ☐ Yes ☐ No
10. Review the main points covered in session ☐ Yes ☐ No
11. Check homework tasks: Practice skills as per goals set in session ☐ Yes ☐ No
12. Check homework tasks: Reading ☐ Yes ☐ No
13. Check homework tasks: Monitor the target child behaviour ☐ Yes ☐ No
14. Ask parents to read session 6, 7, or 8 in "Every parent's family
workbook" ☐ Yes ☐ No
15. Close the session ☐ Yes ☐ No

Session 8

For session 8, did you do the following?

1. Present the agenda for the session? ☐ Yes ☐ No
2. Review the previous session? ☐ Yes ☐ No
3. Review the week's homework? ☐ Yes ☐ No

- | | |
|---|--|
| 4. Exercise 1: review progress? | ☐ Yes ☐ No |
| 5. Introduce high-risk situations? | ☐ Yes ☐ No |
| 6. Exercise 2: Identifying high-risk parenting situation? | ☐ Yes ☐ No |
| 7. Provide a rationale for planned activities? | ☐ Yes ☐ No |
| 8. Introduce the steps of the planned activities routine? | ☐ Yes ☐ No |
| 9. Discuss the use of practice sessions? | ☐ Yes ☐ No |
| 10. Use an example to illustrate an entire planned activities routine? | ☐ Yes ☐ No |
| 11. Exercise 3: Developing a planned activities routine? | ☐ Yes ☐ No |
| 12. Summarize planned activities? | ☐ Yes ☐ No |
| 13. Review the main points covered in session | ☐ Yes ☐ No |
| 14. Explain homework task: Develop and try out planned activities routines for two high-risk situations and monitor steps completed | ☐ Yes ☐ No |
| 15. Explain homework task: Monitor the target child behaviours | ☐ Yes ☐ No |
| 16. Prepare for session 9: develop a planned activities routine and prepare the checklist in "Every parent's family workbook" | ☐ Yes ☐ No |
| 17. Outline next session | ☐ Yes ☐ No |

Session 9

For session 9, did you do the following?

- | | |
|---|--|
| 1. Present the agenda for the session? | ☐ Yes ☐ No |
| 2. Review the previous session? | ☐ Yes ☐ No |
| 3. Review the week's homework? | ☐ Yes ☐ No |
| 4. Exercise 1: Preparing your child for independent activity? | ☐ Yes ☐ No |
| 5. Exercise 2: Reviewing your use of planned activities routine? | ☐ Yes ☐ No |
| 6. Exercise 3: Developing more planned activities routines? | ☐ Yes ☐ No |
| 7. Review encouraging independent play? | ☐ Yes ☐ No |
| 8. Exercise 4: Holding a follow-up discussion? | ☐ Yes ☐ No |
| 9. Exercise 5: Doing activities together? | ☐ Yes ☐ No |
| 10. Set up to conduct self-evaluation and feedback? | ☐ Yes ☐ No |
| 11. Exercise 6: Discussing rules with your child? | ☐ Yes ☐ No |
| 12. Review the main points covered in session | ☐ Yes ☐ No |
| 13. Explain homework task: Try out and monitor two more planned activities routines | ☐ Yes ☐ No |
| 14. Explain homework task: Monitor target child behaviours | ☐ Yes ☐ No |
| 15. Ask parents to read session 10 in "Every parent's family workbook" | ☐ Yes ☐ No |
| 16. Outline next session | ☐ Yes ☐ No |

Session 10

For session 10, did you do the following?

- | | |
|--|--|
| 1. Present the agenda for the session? | ☐ Yes ☐ No |
|--|--|

- | | |
|---|--|
| 2. Review the previous session? | ☐ Yes ☐ No |
| 3. Review the week's homework? | ☐ Yes ☐ No |
| 4. Exercise 1: Reviewing your use of planned activities routine? | ☐ Yes ☐ No |
| 5. Introduce family survival tips? | ☐ Yes ☐ No |
| 6. Exercise 2: Taking care of yourself? | ☐ Yes ☐ No |
| 7. Review suggestions for phasing out the program? | ☐ Yes ☐ No |
| 8. Exercise 3: Identifying changes that have been made? | ☐ Yes ☐ No |
| 9. Discuss the obstacles to the maintenance of change? | ☐ Yes ☐ No |
| 10. Review guidelines for maintaining change | ☐ Yes ☐ No |
| 11. Exercise 4: Planning for future high-risk situations? | ☐ Yes ☐ No |
| 12. Exercise 5: Identifying future high-risk situations? | ☐ Yes ☐ No |
| 13. Exercise 6: Independent problem solving? | ☐ Yes ☐ No |
| 14. Exercise 7: Identifying future goals? | ☐ Yes ☐ No |
| 15. Exercise 8: Completing Assessment Booklet Two | ☐ Yes ☐ No |
| 16. Review the main points covered in session | ☐ Yes ☐ No |
| 17. Close the session (summarize progress made and future goals and prompt parents to set their own homework tasks) | ☐ Yes ☐ No |

Level 5 Enhanced Triple P

When did your last offer a session of Level 5 Enhanced Triple P?

Month _____ Year _____

[illegible]

Please indicate whether you did the following activities **BASED ON THE LAST** time you delivered a Level 5 Enhanced session with a family. If available, please refer to your session notes or session checklists.

Review sessions (for all modules)

- | | |
|--|----------------|
| 1. Present the agenda for the session? | ___ Yes ___ No |
| 2. Identify improvements in the child's behaviour? | ___ Yes ___ No |
| 3. Discuss each parent's current main concerns about their child's behaviour since Level 4 Triple P? | ___ Yes ___ No |
| 4. Encourage the parents to review their own progress? | ___ Yes ___ No |
| 5. Obtain a developmental history for the child? | ___ Yes ___ No |
| 6. Explore the child's educational history? | ___ Yes ___ No |
| 7. Review family circumstances and history? | ___ Yes ___ No |
| 8. Review family relationships and interaction? | ___ Yes ___ No |
| 9. Discuss parental adjustment? | ___ Yes ___ No |
| 10. Review the child's health status and the parents' health status? | ___ Yes ___ No |
| 11. Discuss each parent's attributions or perceptions of the current child behaviour problems? | ___ Yes ___ No |
| 12. Set up a 5 minute observation of a problem solving discussion? | ___ Yes ___ No |
| 13. Present data from each type of assessment (interview, questionnaires, monitoring, observation) in each area assessed (child behaviour, parents' coping skills, and partner support)? | ___ Yes ___ No |
| 14. Summarize the main areas of concern and hypotheses of causes and maintaining factors? | ___ Yes ___ No |
| 15. Determine the parents' expectations about the process and outcome of therapy? | ___ Yes ___ No |
| 16. Introduce the therapy modules? | ___ Yes ___ No |
| 17. Identify the parents' specific treatment goals? | ___ Yes ___ No |
| 18. Negotiate a treatment plan? | ___ Yes ___ No |
| 19. Do a session close? | ___ Yes ___ No |

Module 1 Practice

For Module 1, did you:

- | | |
|---|----------------|
| 1. Present the agenda for the session? | ___ Yes ___ No |
| 2. Review the parents' goals for the session, check how they are feeling and remind them of the rules? | ___ Yes ___ No |
| 3. Keep a tally and note examples of descriptive and general praise? | ___ Yes ___ No |
| 4. Keep a tally and note examples of specific and vague instructions? | ___ Yes ___ No |
| 5. Note strength and weaknesses in incidental teaching, logical consequences, quiet time, time-out and other positive parenting strategies? | ___ Yes ___ No |
| 6. Prompt the parents to set their child up in an activity? | ___ Yes ___ No |
| 7. Prompt the parents to review their strengths and weaknesses and record them in their workbook? | ___ Yes ___ No |
| 8. Shape the parents' skills as appropriate? | ___ Yes ___ No |
| 9. Prompt the parents to set specific goals for practice before and during the next session? | ___ Yes ___ No |
| 10. Homework review? | ___ Yes ___ No |
| 11. Discuss additional agenda items? | ___ Yes ___ No |
| 12. Session close? | ___ Yes ___ No |

Module 2 Coping Skills

Session 1

For session 1, did you do the following?

- | | |
|--|----------------|
| 1. Present the agenda for the session? | ___ Yes ___ No |
| 2. Review the previous session? | ___ Yes ___ No |
| 3. Review the week's homework? | ___ Yes ___ No |
| 4. Link assessment results with parental affect? | ___ Yes ___ No |
| 5. Provide an overview of the components of the module (education, relaxation, managing thoughts, and coping plans)? | ___ Yes ___ No |
| 6. Define negative affective conditions (including stress, depression, anger, and anxiety)? | ___ Yes ___ No |
| 7. Exercise 1: Recognizing unpleasant emotions? | ___ Yes ___ No |
| 8. Exercise 2: Noticing common emotions? | ___ Yes ___ No |
| 9. Discuss how emotions work (using event-thought-reaction model)? | ___ Yes ___ No |
| 10. Exercise 3: Linking thoughts to feelings? | ___ Yes ___ No |
| 11. Discuss how emotions affect parenting (including downward/upward spirals)? | ___ Yes ___ No |

- | | |
|---|--|
| 12. Gain consent to continue this model? | ☐ Yes ☐ No |
| 13. Discuss how the coping skills covered in this module can help parents? | ☐ Yes ☐ No |
| 14. Alert the parents to how learning a new skill takes time? | ☐ Yes ☐ No |
| 15. Introduce the parents to relaxation and how it can help them in managing their emotions? | ☐ Yes ☐ No |
| 16. Exercise 4: Recognizing tension? | ☐ Yes ☐ No |
| 17. Review relaxation techniques? | ☐ Yes ☐ No |
| 18. Exercises 5-9: Rehearse relaxation techniques as required? | ☐ Yes ☐ No |
| 19. Exercise 10: Finding what suits you? | ☐ Yes ☐ No |
| 20. Discuss common problems with relaxation practice? | ☐ Yes ☐ No |
| 21. Exercise 11: Setting goals for practice (<i>Calendar of Relaxation Practice</i>)? | ☐ Yes ☐ No |
| 22. Define negative self-talk and automatic thoughts? | ☐ Yes ☐ No |
| 23. Exercise 12: How to monitor your thoughts (<i>Daily Record of Stressful Events and Thoughts</i>)? | ☐ Yes ☐ No |
| 24. Do a session close? | ☐ Yes ☐ No |

Session 2

For session 2, did you do the following?

- | | |
|---|--|
| 1. Present the agenda for the session? | ☐ Yes ☐ No |
| 2. Review the previous session? | ☐ Yes ☐ No |
| 3. Review the week's homework? | ☐ Yes ☐ No |
| 4. Provide an overview of the two approaches to managing thoughts (coping statements vs. challenging automatic thoughts)? | ☐ Yes ☐ No |
| 5. Introduce coping statements and their applicability? | ☐ Yes ☐ No |
| 6. Exercise 1: Developing your own coping statements? | ☐ Yes ☐ No |
| 7. Illustrate the applicability of coping statements? | ☐ Yes ☐ No |
| 8. Exercise 2: Preparing to use your coping statements in a high risk situation? | ☐ Yes ☐ No |
| 9. Prompt the parents to monitor their use of coping statements (<i>Daily Record of Helpful Thoughts</i>)? | ☐ Yes ☐ No |
| 10. Introduce the notion of challenging unhelpful automatic thoughts? | ☐ Yes ☐ No |
| 11. Introduce ways of challenging automatic thoughts? | ☐ Yes ☐ No |
| 12. Discuss the steps for challenging automatic thoughts? | ☐ Yes ☐ No |
| 13. Illustrate the applicability of challenging automatic thoughts? | ☐ Yes ☐ No |
| 14. Exercise 3: Getting ready to challenge unhelpful thoughts? | ☐ Yes ☐ No |
| 15. Prompt the parents to monitor their challenging of automatic thoughts (<i>Daily Record of Helpful Thoughts</i>)? | ☐ Yes ☐ No |
| 16. Do a session close? | ☐ Yes ☐ No |

Session 3

For session 3, did you do the following?

- | | |
|---|--|
| 1. Present the agenda for the session? | ☐ Yes ☐ No |
| 2. Review the previous session? | ☐ Yes ☐ No |
| 3. Review the week's homework? | ☐ Yes ☐ No |
| 4. Introduce the notion of personal coping plans and prompt the parents to identify two high risk parenting situations? | ☐ Yes ☐ No |
| 5. Exercise 1: Developing coping plans? | ☐ Yes ☐ No |
| 6. Gain a commitment from the parents to implement these Personal coping plans in the next week? | ☐ Yes ☐ No |
| 7. Do a session close? | ☐ Yes ☐ No |

Module 3 Partner Support

Session 1

For session 1, did you do the following?

- | | |
|---|--|
| 1. Present the agenda for the session? | ☐ Yes ☐ No |
| 2. Review the previous session? | ☐ Yes ☐ No |
| 3. Review the week's homework? | ☐ Yes ☐ No |
| 4. Discuss coexistence of relationship difficulties and disruptive child behaviour? | ☐ Yes ☐ No |
| 5. Link assessment results with current relationship functioning? | ☐ Yes ☐ No |
| 6. Review current areas of disagreement over parenting issues? | ☐ Yes ☐ No |
| 7. Provide an overview of the components of the module (communication skills, constructive feedback, causal conversations, supporting each other, problem solving discussions, improving relationship happiness)? | ☐ Yes ☐ No |
| 8. Gain consent to continue this module? | ☐ Yes ☐ No |
| 9. Discuss the importance of communication style? | ☐ Yes ☐ No |
| 10. Exercise 1: Identifying positive and negative communication habits? | ☐ Yes ☐ No |
| 11. Exercise 2: Setting goals for change in communication habits? | ☐ Yes ☐ No |
| 12. Provide skills training in positive communication habits? | ☐ Yes ☐ No |
| 13. Exercise 3: Setting communication ground rules? | ☐ Yes ☐ No |
| 14. Introduce the notion of feedback and its applicability? | ☐ Yes ☐ No |
| 15. Review guidelines for giving and receiving constructive feedback? | ☐ Yes ☐ No |
| 16. Provide skills training in giving and receiving feedback? | ☐ Yes ☐ No |
| 17. Exercise 4: Setting goals for constructive feedback? | ☐ Yes ☐ No |
| 18. Outline advantages of regular casual conversations? | ☐ Yes ☐ No |
| 19. Exercise 5: Practicing casual conversations? | ☐ Yes ☐ No |
| 20. Discuss common problems with casual conversations? | ☐ Yes ☐ No |

- | | |
|---|--|
| 21. Gain a commitment from parents to hold daily casual conversations and prompt the parents to monitor their progress
(<i>Casuals Conversations Checklist</i>)? | ☐ Yes ☐ No |
| 22. Do a session close? | ☐ Yes ☐ No |

Session 2

For session 2, did you do the following?

- | | |
|--|--|
| 1. Present the agenda for the session? | ☐ Yes ☐ No |
| 2. Review the previous session? | ☐ Yes ☐ No |
| 3. Review the week's homework? | ☐ Yes ☐ No |
| 4. Discuss the importance of support? | ☐ Yes ☐ No |
| 5. Review guidelines for providing support when problem behaviour occurs? | ☐ Yes ☐ No |
| 6. Exercise 1: Setting goals for providing partner support? | ☐ Yes ☐ No |
| 7. Discuss obstacles to providing partner support? | ☐ Yes ☐ No |
| 8. Exercise 2: Identifying obstacles to partner support in your family? | ☐ Yes ☐ No |
| 9. Gain a commitment from the parents to support each other when problem behaviour occurs and prompt the parents to monitor their progress (<i>Partner Support Checklist</i>)? | ☐ Yes ☐ No |
| 10. Provide a rationale for problem solving? | ☐ Yes ☐ No |
| 11. Explain the problem solving steps (defining the problem, generating alternative solutions, evaluating alternatives, developing a solution, putting the plan into action, reviewing and revising the plan)? | ☐ Yes ☐ No |
| 12. Discuss common problems during problem solving? | ☐ Yes ☐ No |
| 13. Exercise 3: Having a problem solving discussion? | ☐ Yes ☐ No |
| 14. Prompt the parents to try out the solutions over the next week? | ☐ Yes ☐ No |
| 15. Select a topic for a further problem solving discussion at home? | ☐ Yes ☐ No |
| 16. Do a session close? | ☐ Yes ☐ No |

Session 3

For session 3, did you do the following?

- | | |
|---|--|
| 1. Present the agenda for the session? | ☐ Yes ☐ No |
| 2. Review the previous session? | ☐ Yes ☐ No |
| 3. Review the week's homework? | ☐ Yes ☐ No |
| 4. Exercise 1: Refining the problem solving discussion? | ☐ Yes ☐ No |
| 5. Exercise 2: Ideas for enhancing your relationship? | ☐ Yes ☐ No |
| 6. Exercise 3: Setting specific goals for relationship happiness? | ☐ Yes ☐ No |
| 7. Do a session close? | ☐ Yes ☐ No |

Program close (for all modules)

- | | |
|---|----------------|
| 1. Present the agenda for the session? | ___ Yes ___ No |
| 2. Review the previous session? | ___ Yes ___ No |
| 3. Review the week's homework? | ___ Yes ___ No |
| 4. Set up an observation of positive parenting skills? | ___ Yes ___ No |
| 5. Exercise 1: Reviewing the practice task? | ___ Yes ___ No |
| 6. Review suggestions for phasing out the program? | ___ Yes ___ No |
| 7. Exercise 2: Identifying changes that have been made? | ___ Yes ___ No |
| 8. Discuss obstacles to the maintenance of change? | ___ Yes ___ No |
| 9. Review guidelines for maintaining change? | ___ Yes ___ No |
| 10. Review the steps for planned activities routines and personal coping plans? | ___ Yes ___ No |
| 11. Exercise 3: Planning for future high risk situations? | ___ Yes ___ No |
| 12. Exercise 4: Identifying future high risk situations? | ___ Yes ___ No |
| 13. Exercise 5: Independent problem solving? | ___ Yes ___ No |
| 14. Exercise 6: Identify future goals? | ___ Yes ___ No |
| 15. Do a session close? | ___ Yes ___ No |
| 16. Do a program close? | ___ Yes ___ No |

Appendix F

Descriptive Information Provided by Administrators, Supervisors, and Service Providers

Questionnaire for Administrators and Supervisors
(Descriptive information)

1. Please indicate the name of your organization: _____
2. Please indicate your role in your agency with regards to Triple P (please select one):
 - ☐ Service provider/practitioner (I have received official training in Triple P)
 - ☐ Supervisor (I provide oversight and advice to the trained Triple P service providers)
 - ☐ Administrator (I manage the part of the agency in which Triple P is offered and I have the authority to make changes in budgets, structures, and personnel with regards to Triple P)
3. When did the first service providers in your organization complete training in Triple P?
_____Month _____Year
4. Which Triple P levels have service providers in your organization received training in?
___ Level 1 ___ Level 2 ___ Level 3 ___ Level 4 ___ Level 5 ___ Don't know
5. When did service providers in your organization first start offering Triple P to parents?
_____Month _____Year
6. If your agency is planning on providing additional Triple P training to service providers, please indicate the level training is planned for:

Questionnaire for Service Providers
(Descriptive information)

1. Please indicate the name of your organization: _____

2. Please indicate your role in your agency with regards to Triple P (please select one):

- ☐ Service provider/practitioner (I have received official training in Triple P)
- ☐ Supervisor (I provide oversight and advice to the trained Triple P service providers)
- ☐ Administrator (I manage the part of the agency in which Triple P is offered and I have the authority to make changes in budgets, structures, and personnel with regards to Triple P)

3. How many years experience do you have in providing parent interventions?

4. Please indicate your professional background:

- ___ Counsellor, therapist, guidance counsellor
- ___ Parent educator, family literacy worker
- ___ Social worker
- ___ Childcare staff
- ___ Nurse, nurse practitioner
- ___ School personnel
- ___ Other (e.g., clergy, law enforcement, other medical)

3. Your gender:

___ Female ___ Male

4. Which levels of Triple P have you received official *training* for?

Level 2: Selected Triple P ___	Level 2: Selected <i>Teen</i> Triple P: ___
Level 3: Primary Care Triple P ___	Level 3: Primary Care <i>Teen</i> Triple P: ___
Level 4: Group Triple P ___	Level 4: Group <i>Teen</i> Triple P ___
Level 4: Standard Triple P ___	Level 4: Standard Stepping Stones Triple P ___
Level 5: Enhanced Triple P ___	Level 5: Pathways Triple P ___

5. When did you receive this training?

_____ Month _____ Year

Appendix G

Study Notice for Administrators



The Implementation of Triple P – Positive Parenting Program: An Examination of Key Components and Program Adherence

Mr./Ms.,

We are researchers at the University of Ottawa who are studying factors that are related to the implementation of the Triple P parenting program in Ontario communities. We are interested in looking at how various components make it easier or more difficult to offer Triple P levels 4 (Standard and Group) and 5 (Enhanced).

We are contacting approximately 90 agencies that offer levels 4 (Standard and Group) or 5 (Enhanced) Triple P programs. In each agency we would like to invite administrators, supervisors who provide supervision to service providers offering levels 4 or 5, and service providers to complete this survey.

Completion of the online survey will take about 15 minutes. Participants are not asked to provide any personal information and can complete the survey at any time of day.

We believe that the results from this study will help us understand the obstacles to offering Triple P services as well as the factors that facilitate implementation.

Veronica Asgary Eden will be contacting you by phone in the next few days to provide you with more information about the study and to see whether you and

your agency would be interested in participating. In the meantime, if you have any questions, please contact Veronica or Dr. Catherine Lee.

We are members of the Triple P Ontario Network's Research Working Group. Below you will find a letter of support from that group for this study.

Thank you very much for taking the time to read about our study.

Veronica Asgary Eden and Dr. Catherine Lee

Appendix H

Telephone Script

Mr. / Ms. _____,

My name is _____; I'm calling from the University of Ottawa regarding an email we sent to you a few days ago about a study we are conducting on the implementation of Triple P. Is this an OK time to give you a bit more information about the study?

If no: When would be a good time for me to call back? Many thanks.

If yes:

Let me take a moment to tell you how we became interested in studying the implementation of Triple P. In October 2007, the Triple P Ontario Network (organized by the Centre of Excellence for Child and Youth Mental Health at the Children's Hospital of Eastern Ontario) was formed. This group is a collaboration between community agencies implementing Triple P and university-based researchers. During our meetings, it became clear that we needed a better understanding of how Triple P services were being offered across the province. Therefore, in January 2008, a Research Working Group was formed, of which my thesis supervisor and I are members. Through the Research Working Group and the greater Triple P Ontario Network we were given information to contact administrators of agencies that are implementing Triple P.

The study I am calling you about today is being conducted through the University of Ottawa. Although there is a wealth of information about Triple P as it is offered in Australia, we know very little about the ways that it is provided in Ontario. The study will evaluate the implementation barriers and facilitators identified by Triple P service providers, supervisors, and agency administrators. Findings from this study will have important implications in identifying factors associated with successful implementation of an evidence-based parenting program and we believe this will help guide agency's decisions related to the delivery of Triple P services.

We are eager to learn the views of three types of participants: administrators, supervisors, and service providers working in an agency that provides Triple P levels 4 (Standard or Group) or 5 (Enhanced).

If the person asks how each role is defined:

Administrators are defined as those managing the part of the organization in which Triple P is offered and who have authority to make changes in budgets, structures, and personnel. Supervisors are defined as those who provide oversight and advice to the trained Triple P service providers. Service providers are defined as front line practitioners who have received official training in Triple P.

Is it OK if I ask you a few questions about the Triple P services your agency is offering?

1. Which levels of Triple P have service providers in your agency received training in? _____

If not 4 or 5:

Thank you for taking the time to hear about the study. Unfortunately, your agency is not eligible to participate as we are only evaluating agencies that offer the most intense levels of Triple P. Would you be interested in hearing results once the study is complete?

2. Which levels of Triple P currently being offered or have been offered in the past? _____

If not 4 or 5:

Thank you for taking the time to hear about the study. Unfortunately, your agency is not eligible to participate as we are only evaluating agencies that offer the most intense levels of Triple P. Would you be interested in hearing results once the study is complete?

3. How many service providers have offered or are offering levels 4 (Standard and Group) and 5 (Enhanced)? _____

If zero then:

Thank you for taking the time to hear about the study. Unfortunately, your agency is not eligible to participate as we are only evaluating agencies that are currently offering levels 4 and 5 of Triple P. Would you be interested in hearing results once the study is complete?

4. How many supervisors are there for these service providers? _____

If you are interested in participating:

- We would ask you to complete the online survey, which should take no more than 20 minutes.
- We will also ask you to contact supervisors and service providers of level 4 and 5 by email, telling them about the study and letting them know that their participation is supported by you but *completely voluntary* and that you will *not* have access to any of the survey data. I will send you a study notice with the survey link and a suggested cover letter.
- Finally, we would like your help in forwarding a reminder notice that I will send you in two weeks, thanking those who have participated and reminding those who have not yet done so, that we would appreciate their help.

Once we have collected and analyzed all the survey responses from all of the agencies, we will send you a summary of the results which you may like to share with your staff.

Do you have any questions?

Answer all questions

Do you have enough information to decide about participating?

If yes

Thank you very much for your help with this study. I will send the notice and link immediately. If you have any questions, you can reach me at XXX or via email (XXX@uottawa.ca).

If no

Thanks for taking the time to hear about the study. Would you be interested in hearing results once the study is complete?

If unsure

Thanks for taking the time to hear about the study. Would you like me to call back when you have had a chance to think about this? Would you like me to arrange for Dr. Lee to call you?

Appendix I

Study Notice for Service Providers and Supervisors



The Implementation of Triple P – Positive Parenting Program: An Examination of Key Components and Program Adherence

We are researchers at the University of Ottawa who are interested in looking at factors that are related to the implementation of the Triple P parenting program in Ontario communities. We are interested in looking at how various components make it easier or more difficult to offer Triple P levels 4 (Standard and Group) and 5 (Enhanced).

We are contacting approximately 90 agencies that offer levels 4 (Standard and Group) or 5 (Enhanced) Triple P programs. In each agency we would like to invite administrators, supervisors who provide supervision to service providers offering levels 4 or 5, and service providers to complete this survey. You are free to choose whether to participate or not in this study. Your choice will not be disclosed to anyone in your agency.

Completion of the online survey will take about 15 minutes. Participants are not asked to provide any personal information and can complete the survey at any time of day.

We believe that the results from this study will help us understand the obstacles to offering Triple P services as well as the factors that facilitate implementation.

To participate in this study, please click on this link:

http://www.surveymonkey.com/s.aspx?sm=fA5o_2bS4rNDsib74iHNWRsQ_3d_3d

If you have any questions, please contact Veronica Asgary Eden, at XXX or via email.

Thank you very much for your interest!

Appendix J

Reminder Email

Dear (administrator's name),

As agreed when we talked on the phone on (give date), I would be grateful if you would please forward this email reminder to your staff who were trained in Triple P levels 4 (Standard or Group, ages 0-12) and 5 (Enhanced). Many thanks for your help with this study. If you have any questions, please do not hesitate to contact me (XXX) or Dr. Catherine Lee (XXX).

Hi,

A couple of weeks ago you were invited to participate in a study looking at factors that are related to the implementation of the Triple P parenting program in Ontario communities. We would like to thank everyone who has already completed the survey. We would also like to take this opportunity to ask those who are still interested in completing it but who have not yet had a chance to take a few minutes to do so at your earliest convenience.

If you are a service provider who has offered or are offering levels 4 (Standard and Group) or 5 (Enhanced), a supervisor who provides supervision to service providers offering levels 4 or 5, or an administrator in an agency offering levels 4 or 5, we'd be very grateful if you would please take 15 minutes to complete this survey.

Please remember that you are free to choose whether to participate or not in this study, your choice will not be disclosed to anyone in your agency, and you do not have to provide us with any personal information.

We believe that the results from this study will help us understand the obstacles to offering Triple P services as well as the factors that facilitate implementation. To participate in this study, please click on this link:

http://www.surveymonkey.com/s.aspx?sm=fA5o_2bS4rNDsib74iHNWRsQ_3d_3d

If you have any questions, please contact Veronica Asgary Eden, at XXXX.
Thank you very much for your interest!

Appendix K

Consent Forms



The Implementation of Triple P – Positive Parenting Program: An Examination of Key Components and Program Adherence

Dear Colleague,

We are interested in whether various factors make it easier or more difficult to offer Triple P levels 4 (Standard and Group) and 5 (Enhanced). We are asking service providers, supervisors and administrators who are offering or have offered Triple P levels 4 (Standard and Group) and 5 (Enhanced) services in approximately 90 agencies across the province to complete this survey. You are free to choose to participate or not to participate in this study. Your choice will not be disclosed to anyone in your agency.

If you decide to participate in this study, you will be asked to fill out an on-line questionnaire about your experience offering Triple P levels 4 and 5 and, if you are a service provider, about the last time you offered a session to parents. You will only be asked to fill this out once at a time that works best for you and this should only take around 15 minutes. You do not have to provide your name or contact information to participate in this study. However, if you would like to be contacted to participate in future studies, you can choose to provide us with your email address at the end of the survey. In this case, your personal information will be kept separately from your answers on the survey to make sure we cannot identify who completed the survey.

There are no risks involved in participating in this study. Your answers will be kept confidential and therefore no-one other than the researchers will have access to this information. For example, no-one from your agency will be informed about whether you chose to participate or not nor about how you answered the questionnaires.

In order to remain unidentified we will *not* ask you to put your name on the questionnaires. A code number will identify the questionnaires. Responses will be kept on a secured computer in the researchers' lab, and only researchers involved with this project will have access to them. You or your agency will not be identified in any publication or presentation of this study.

There are no direct benefits to you for participating in this study. We believe that the results from this study will help agencies make decisions about how to make it easier to offer Triple P services.

Participation is voluntary and you are free to withdraw at any time without any penalty to you. If you are uncomfortable with any question on the questionnaires, you may leave it blank. In order to withdraw, simply close your internet browser.

If you have any questions regarding the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research at the University of Ottawa. Please feel free to contact Dr. Catherine Lee at XXX if you have any questions.

Thank you for your participation,

Dr. Catherine Lee, School of Psychology, University of Ottawa

Veronica Asgary Eden, B.A. Hon., School of Psychology, University of Ottawa

Please print a copy of this page for future reference.

By hitting the “Continue” button, I consent to participate in this study.

Continue

L'implémentation du programme « Triple P – Positive Parenting Program » : une enquête des facteurs clés et de l'adhérence au programme

Cher (ère) collègue,

Nous sommes intéressés à regarder si divers facteurs facilitent ou rendent plus difficile la mise en oeuvre des niveaux 4 (Standard et Groupe) et 5 (« Enhanced ») du programme « Triple P ». Nous demandons aux praticien(ne)s, aux superviseurs, et aux administrateurs qui offrent présentement ou qui ont offert dans le passé des services pour les niveaux 4 (Standard et Groupe) et 5 (« Enhanced ») du programme « Triple P » dans 90 agences à travers la province de compléter ce sondage. C'est à vous de décider si vous voulez participer ou non dans cette étude. Votre choix ne sera pas divulgué à vos collègues.

Si vous décidez de participer dans cette étude, on vous demandera de compléter un questionnaire en ligne à propos de votre expérience avec les niveaux 4 et 5 de Triple P et, si vous êtes praticien(ne), à propos de la dernière fois que vous avez offert une session à des parents. Vous serez demandé de compléter ce sondage une fois seulement et de le faire à un moment qui vous convient. Le tout prendra environ 15 minutes. Veuillez noter que le questionnaire est offert en anglais seulement. Vous n'avez pas à nous donner votre nom ou votre information de contact afin de participer. Par contre, si vous voudriez être contacté pour participer dans des recherches futures, vous pouvez choisir de nous fournir votre adresse courriel à la fin du sondage. Dans ce cas, votre information personnelle serait sauvegardée séparément de vos réponses aux questionnaires afin d'assurer qu'on ne puisse pas identifier qui a complété le sondage.

Il n'y a pas de risques à participer dans cette étude. Vos réponses seront gardées confidentielles et donc personne autre que les chercheurs n'aura accès à cette information. Par exemple, personne de votre agence ne sera averti de votre décision à participer ou non dans cette étude ou de la manière dont vous avez répondu aux questions.

Afin de demeurer non identifié(e), nous *ne* vous demanderons *pas* de mettre votre nom sur les questionnaires. Un code identifiera les questionnaires. Les réponses seront gardées sur un ordinateur sécuritaire dans le laboratoire des chercheurs et seulement les chercheurs impliqués dans ce projet auront accès à cette information. Votre nom ni le nom de votre agence ne sera identifié dans aucune publication ou présentation des résultats de cette étude.

Il n'y a pas d'avantages directs résultants de votre participation dans cette étude. Nous croyons cependant que les résultats de cette étude aideront des agences à faire des décisions afin de faciliter l'offre des services Triple P.

Votre participation est volontaire et vous pouvez vous retirer de l'étude à n'importe quel moment sans pénalité. Si vous êtes inconfortable avec une question, vous pouvez sauter cette question. Pour se retirer de l'étude, vous n'avez qu'à fermer votre navigateur internet.

Si vous avez des questions concernant la déontologie de cette étude, vous pouvez contacter la responsable de la déontologie en recherche à l'université d'Ottawa au XXX. Vous pouvez aussi contacter Dr. Catherine Lee au XXX si vous avez des questions.

Merci de votre participation,

Dr. Catherine Lee, École de psychologie, Université d' Ottawa

Veronica Asgary Eden, B.A. Hon., École de psychologie, Université d' Ottawa

En frappant le bouton « continue », je consens à participer dans cette étude.

Continue

Appendix L

Factor Loading Table for the Combined FRPI Measure

Table 1

Factor Loadings for Exploratory Factor Analysis with Varimax Rotation of FRPI Combined Scale (Using Maximum Likelihood Extraction)

Items	Factor			
	1	2	3	4
Key staff participation in planning, decision making, and problem-solving with respect to Triple P	.58	.08	-.07	.42
Administrative support and leadership (moral support) for Triple P	.60	.07	-.01	.46
Open lines of communication between agency administrators, program staff, and service providers with respect to Triple P	.69	.10	-.03	.46
Fit between Triple P and other agency programs and goals	.56	.18	-.09	.15
Cohesiveness and collaboration among all key stakeholders in Triple P program	.65	.18	-.07	.24
Clarity of Triple P goals and procedures	.54	.19	.04	.16
Clear lines of authority with respect to the Triple P program	.56	.22	.05	.18
Structural stability (lack of Triple P staff turnover)	.44	.27	.09	.02
Program supervisor or “champion” for Triple P	.63	.07	.07	.21
Agency facilities for delivering Triple P	.40	.29	.22	.11
Sufficient financial support for Triple P	.49	.31	.65	-.11
Sufficient resources allocated for Triple P	.48	.37	.65	-.08
Political climate for delivering Triple P	.51	.33	.19	-.06
Service providers’ buy-in/support for Triple P	.73	.43	-.28	-.14
Service providers’ motivation for Triple P	.75	.47	-.32	-.13
Service providers’ skill and knowledge (quality of delivery) of Triple P	.63	.14	-.14	.13
Service providers have time to implementation of Triple P	.53	.19	.12	-.07
Service providers prioritize the Triple P program	.66	.21	.00	-.17
Hiring pool available	.48	.19	.18	.02
Communication with other Triple P service providers, staff, and supervisors	.50	.11	.14	.27
Supervisor’s buy-in/support for Triple P	.84	-.44	-.02	-.02
Supervisor’s motivation for Triple P	.86	-.43	.00	-.09
Supervisor’s skill and knowledge of Triple P (quality of supervision)	.74	-.26	.08	.01
Supervisor’s time to devote to Triple P coordination	.65	-.13	.26	-.05

Note. Factor loadings >.40 are in boldface.