

The Effects of Level 2 Positive Parenting Program (Triple P) on
Parental Use of Physical Punishment, Non-Physical Forms of Punishment, and Non-Punitive
Parenting Responses

by

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Abstract

Child maltreatment is a significant public health issue. Reducing prevalence of coercive parenting is one means to reducing risk of maltreatment and negative developmental outcomes for children. Parental use of physical punishment has been associated with adverse consequences in childhood and adulthood. Parent education programs, such as the Positive Parenting Program (Triple P), that promote alternatives to using physical punishment with children may reduce coercive parenting. In this study, parental use of physical punishment, non-physical forms of punishment, and non-punitive parenting responses were compared before and after parents attended Level 2 Triple P parent education seminars. International Parenting Survey-Canada (IPS-C) data were used to examine Belsky's (1984) theoretical proposition that parental factors are the strongest predictor of parenting behaviour followed by contextual and child factors. Independent samples t-tests, Wilcoxon Signed Rank Tests, and a series of regression models were used to examine the study's hypotheses. A total of 27 parents attended the Triple P sessions. Parental use of physical punishment decreased on only one of the four physical punishment items (shaking) post-intervention. Although there were no significant differences in overall use of non-physical forms of punishment and non-punitive parenting strategies pre and post-intervention, there were significant increases in frequency of use of individual scale items pre- to post-intervention. IPS-C sample of 2,340 Canadian parents was used to examine Belsky's postulate. Results were mixed and provided partial support for the postulate. Child behaviour problems, participation in parent education programs, parent employment status, and parent age predicted coercive parenting. Findings highlight the need to further examine these hypotheses.

Dedication

To my parents: Lenin & Nelly

who

Engraved in me the belief that I can accomplish anything in life

and

Encouraged me to dive into the biggest waves and be a curious investigator from a very young

age.

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Chapter 1: Introduction

The quality of parenting that children experience has an impact on their development and overall sense of well-being (Chamberlain & Patterson, 1995; McConnell, Breikreuz, Savage, & Hamilton, 2010; Sanders et al., 2008; Wolfe & McIsaac, 2010). A considerable body of research demonstrates the link between harsh parenting and negative developmental outcomes (Anda et al., 2006; Bell & Belsky, 2008; Bradley, Corwyn, Burchinal, McAdoo, & Gracia-Coll, 2001; Hovee et al., 2009; Jeynes, 2007; McConnell, et al., 2010; McLeod, Weisz, & Wood 2007; McLeod, Wood, & Weisz 2007; Straus & Paschall, 2000). One such practice, parental use of physical punishment, continues to be used by parents despite research highlighting its harmful effects and its ineffectiveness as a method of guiding children towards desirable behaviour (Clément, Bouchard, Jetté, & Laferrrière, 2000; Clément, Chamberland, Côté, Dubeau, & Beauvais, 2005; Pinheiro, 2006, Straus, 2010).

Parental use of physical punishment has been shown to have detrimental effects not only on children's physical, psychological, and social well-being but on the parent-child relationship (Crockenberg, 1987; Durrant, Ensom, & Coalition on Physical Punishment of Children and Youth, 2004; Gershoff, 2002; Gershoff, 2016; Grogan-Kaylor, 2005; Lansford et al., 2005; Rodriguez, 2003). Experience of physical punishment in childhood has also been associated with negative outcomes in adulthood such as poor mental health, high levels of aggression, criminal and antisocial behaviour, alcohol and other drug use, and a higher risk of abusing one's own child or spouse (Afifi, Brownridge, Cox, & Sareen, 2006; Gershoff, 2016; Javo, Ronning, Heyerdahl, & Webster Rudmin, 2004; MacMillan et al., 1999; Rodriguez, 2003; Turner & Muller, 2004). Moreover, most substantiated physical abuse takes place within the context of punishment (Coontz & Martin, 1988; Gershoff, 2002; Gershoff, 2016; Samuda, 1988; Trocmé et al., 2001; Trocmé & Durrant, 2003; Trocmé, Fallon, MacLaurin, & Copp, 2002; Wilson-Oyelaron, 1989;

Zigler & Hall, 1989). That is, in most cases, physical abuse is physical punishment (Durrant 2008a; Durrant & Ensom, 2012; Trocmé et al., 2005; Trocmé & Durrant, 2003). In fact, a recent meta-analysis found that the effects of physical abuse and physical punishment (spanking) on children are similar in magnitude and direction across study designs, countries, and age groups (Gershoff, 2016). Physical punishment also puts children at risk of physical harm that often accompanies physical abuse. For instance, in 2008, of all the substantiated physical maltreatment cases investigated by Canadian child welfare workers, 4,492 child investigations documented physical harm, the harm being severe enough to require medical treatment in 5% of these cases (Public Health Agency of Canada, 2010).

In addition to the documented negative outcomes associated with physical punishment, its effectiveness in eliciting compliance is not supported in the literature. Studies examining the relationship between parental use of physical punishment and immediate compliance suggest that the short-term effectiveness of physical punishment is limited. In a meta-analysis of five studies examining this relationship, although three studies found physical punishment to be associated with immediate compliance (Gershoff, 2002), in one of the studies, an average of eight spankings was needed for children to comply with parental requests (Bean & Roberts, 1981). Thus, physical punishment has to be administered numerous times to be effective but this puts the child at risk of injury or harm. In a review of the literature on the effects physical punishment on children, Gershoff (2010) also reaffirms that there is limited evidence to suggest that physical punishment is effective in securing immediate compliance. Further, physical punishment was found to be no more effective than time-out, reasoning, or threats in securing immediate child compliance (Gershoff, 2010).

The long-term effectiveness of physical punishment is also not supported. In Gershoff's (2002) meta-analysis, thirteen of fifteen studies examining the relationship between physical

punishment and long-term compliance found physical punishment to be associated with decreases in children's moral internalization as well as moral and pro-social behaviour. Larzelere and Kuhn's (2005) meta-analysis comparing the effectiveness of physical punishment and other parenting responses (e.g., reasoning, threats, privilege removal, time-out, love withdrawal) found physical punishment to be no more effective than other responses in promoting moral internalization. In addition, parental use of physical punishment: (1) can lead to greater discipline problems as physical punishment is a risk factor for child aggression and antisocial behaviour, (2) does not teach children why their actions are problematic nor does it model desired behaviour, (3) gives children attention which increases the likelihood that the child will maintain the undesired behaviour, and (4) can teach children that physical violence is a socially acceptable and appropriate means of solving problems (Bandura, 1973; International Save the Children Alliance, 2003; Pinheiro, 2006; Voisine & Baker, 2012).

Despite the adverse consequences associated with parental use of physical punishment, the mounting evidence that physical punishment and abuse are virtually indistinguishable, its link to injury, and its ineffectiveness as a method of guiding children towards desirable behaviour, Canadian legislation still justifies the use of "reasonable" force by parents or those standing in the place of parents (Bailey, 2003; Bernstein, 2006; Durrant, 2008b). Of equal concern is the continued support and use of physical punishment by Canadian parents. In 2012, an online poll of over 6,000 people revealed that 34% of respondents said spanking should be allowed under Canadian law (CBC News, February 2012). A national poll conducted in 2004 by SES/Sun Media found that 64% of respondents supported the use of force to discipline a child (Winnipeg, Sun-Manitoba, 2004). Not surprisingly, a national survey of parents of children under the age of six found that over half (51%) of those who completed the survey reported using physical punishment at least occasionally (Oldershaw, 2002). More recently, a large-scale online survey

conducted with Alberta, Ontario, Québec, and Prince Edward Island parents and guardians of children aged 2 to 12 years found that 27% of caregivers reported using physical punishment with their children (LaRoche, Lee, & Ateah, 2013). Although these data suggest that parental use of physical punishment is decreasing, the findings highlight that Canadian parents continue to use physical punishment with their children.

Reducing prevalence of physical punishment is one means to reducing risk of maltreatment and negative developmental outcomes for children. Parenting programs that discourage the use of physical punishment and encourage parents to use alternative strategies hold promise in this area. Indeed research suggests that parents are interested in learning alternatives to physical punishment and value discipline advice from professionals (Ateah, 2003; Bunting, 2004; Durrant et al., 2004; Eastman, Corona, Ryan, Warsofsky, & Schuster, 2005; Walsh, 2002). Although physical punishment is the parenting response that has received the most research attention (Lansford & Deater-Deckard, 2012; Mahoney, O'Donnelly, Lewis, & Maynard, 2000), research on non-physical forms of punishment and non-punitive parenting responses have found these responses to be linked to fewer child behaviour problems as well as positive developmental outcomes (Amato & Fowler, 2002; Carlo, Knight, McGinley, & Hayes, 2011). For example, using consequences for misbehaviour, explaining rules or teaching desirable behaviour, using rewards to encourage desirable behaviour or to stop misbehaviour, monitoring children's behaviour, diverting a child away from misbehaviour or toward desirable behaviour, and withdrawing attention while the problem behaviour continues have been linked to reductions in non-compliance, destructive behaviour, and aggression as well as positive social interaction, prosocial behaviour, moral regulation, empathy, social competence, self-control, and enhanced communication skills (Fabiano et al. 2004; Ford, Olmi, Edwards, & Tingstrom, 2001; Hart, DeWolf, Wozniak & Burts, 1992; Hester, Hendrickson, & Gable, 2009; Hoffman, 1994; Jones,

Forehand, Brody, & Armistead, 2002; Kaminski, Valle, Filene, & Boyle, 2008; Kerr, Lopez, Olson, & Sameroff, 2004; Kotchick & Forehand, 2002; Krevans & Gibbs, 1996). A parent education program available in Canada that discourages the use of physical punishment and promotes alternatives to coercive and ineffective discipline practices is the Positive Parenting Program or Triple P (Sanders & Turner, 2005).

Triple P is a multi-level system of parenting support designed to improve parental competence, eliminate or prevent coercive parenting practices, and reduce behavioural and emotional problems in children (Prinz, Sanders, Shapiro, Whitaker, & Lutzker, 2009; Sanders et al., 2008). The program came to Canada in 2004 and has been available to parents in Manitoba since 2006. Research findings provide evidence of the positive effects of Triple P on parenting skills, parental well-being, and child behaviour (Markie-Dadds & Sanders 2006; McMahon 1999; Prinz & Dumas, 2004; Taylor & Biglan 1998; Sanders 1999; Sanders, Markie-Dadds, Rinaldis, Firman, & Baig, 2007; Sanders et al., 2008). A meta-analysis of 55 Triple P studies that used quasi experimental or experimental designs found small to moderate effects in terms of increased parental well-being, positive parenting skills, and reduced child behaviour problems (Nowak & Heinrichs, 2008). Similarly, a meta-analysis of 11 randomized control trials found moderate to large effects in terms of positive changes in parenting and reduced parent-reported child behaviour problems (Thomas & Zimmer-Gembeck, 2007). What is not known is whether the program has an impact on parental use of physical punishment (Voisine & Baker, 2012). Does receiving education that discourages the use of physical punishment and promotes alternative responses have an impact on parental use of physical punishment?

To date, the link between receiving Triple P parent education and parental use of physical punishment has not been examined (Voisine & Baker, 2012). Also, the evidence base for Triple P comes from studies that have examined the effectiveness of the more intensive levels of the

program (Bor, Sanders, & Markie-Dadds, 2002; Gallart & Matthey, 2005; Hoath & Sanders, 2002; Leung, Sanders, Leung, Mak, & Lau, 2003; McConnell et al., 2010; Plant & Sanders, 2007; Roberts, Mazzucchelli, Studman, & Sanders, 2006; Sanders, Bor, & Morawska, 2007; Sanders, Markie-Dadds, Tully & Bor, 2000; Sanders et al., 2004; Turner, Richards & Sanders 2007; Whittingham, Sofronoff, Sheffield, & Sanders, 2009). Little research attention has been given to assessing the effectiveness of less intensive levels such as Levels 1 and 2 (McConnell et al., 2010). Further, the program's evidence base comes primarily from studies that have been conducted in Australia and other countries around the world such as Germany, Hong-Kong, Netherlands, Switzerland, Japan, and the United States (Bodenmann, Cina, Ledermann, & Sanders, 2008; Heinrichs, Bertram, Kuschel, & Hahlweg, 2005; Leung, Sanders, Ip, & Lau, 2006; Matsumoto, Sofronoff, & Sanders, 2010). Only one Canadian study included an examination of the effectiveness of Triple P (Levels 2 and 3) on measures of positive parenting practices, child difficulties, family functioning, and parenting stress. Moreover, that study's findings were inconsistent with international findings: no difference was found between the Triple P and services-as-usual groups on the measures of interest (McConnell et al., 2010). Using Belsky's (1984) Determinants of Parenting model as the organizing framework, the current study addressed these gaps by examining the effect of Level 2 Triple P parent education on parental use of physical punishment and parenting skills promoted in the program among a sample of parents¹ residing in Winnipeg.

The purpose of this study was to examine the relationship between parental participation in Level 2 Triple P programming and parental use of: (1) physical punishment, (2) non-physical forms of punishment: imposed consequences for misbehaviour, and (3) non-punitive parenting

¹ Originally, the study intended to focus on mothers only. However, due to recruitment challenges, fathers were also invited to participate.

strategies: explaining or teaching desirable behaviour, using rewards to encourage desirable behaviour or stop misbehaviour, monitoring children's behaviour, diverting children away from misbehaviour or toward desirable behaviour, and withdrawing attention while the problem behaviour continues. Parental use of physical punishment, non-physical forms of punishment, and non-punitive parenting strategies were compared before and after parents attended Level 2 Triple P parent education seminars. Initially, through the use of data collected from those who participated in the Triple P sessions, this study was to examine Belsky's (1984) contention that parental factors exert the most influence on parental behaviour followed by contextual factors and child factors. However, due to recruitment difficulties and a small sample size, Belsky's (1984) postulate was examined using data from the International Parenting Survey-Canada (IPS-C). The findings of the present study add to the knowledge base on the effectiveness of less intensive levels of Triple P and to the literature on the impact of positive parenting education on parental use of physical punishment.

The definition of parenting found in the literature as well as the definitions of the constructs of interest are introduced next. In Chapter 2, the theoretical framework for this study is presented with a discussion of related research findings. The Positive Parenting Program is described in Chapter 3 as well as research on Level 2 Triple P and physical punishment, non-physical forms of punishment, and non-punitive parenting strategies. The purpose of the present study as well as the study hypotheses are described in detail. In Chapters 4 and 5 the study's methodology and results are presented. Chapter 6 provides the interpretation of the findings and highlights the study's implications, limitations, and directions for future research.

Parenting

Historically, parenting has been conceptualized in a variety of ways (Darling & Steinberg, 1993; Lee et al., 2008). In their review of parenting research, Darling and Steinberg (1993)

noted two major approaches to defining parenting: parenting styles and parenting practices.

Parenting styles. The parenting style approach to defining parenting focuses on global dimensions, categorizations or typologies based on parents' interactions with their children (Darling & Steinberg, 1993). The focus is not on specific behaviours but on a set of non-goal directed global characteristics that are assumed to have indirect influences on child outcomes (Darling & Steinberg, 1993).

The number of parenting style dimensions proposed by early users of this approach varied (Baldwin, 1955; Becker, 1964; Darling & Steinberg, 1993; Schaefer, 1959). For instance, whereas Symons (1939) viewed dominance/submission and acceptance/rejection as the underlying dimensions that should be used to describe and study parenting, Schaefer (1959) emphasized autonomy/control and love/hostility, and Baldwin (1955) focused on detachment/involvement as well as emotional warmth/hostility. Thus, there was a lack of consensus as to the dimensions that defined parenting. Baumrind's (1967) parenting typology changed this and became firmly established in the area of child development (Darling & Steinberg, 1993).

Based on her research with well-functioning families and focusing on quality and quantity of parental warmth and control, Baumrind (1967) introduced her authoritative-authoritarian-permissive typology. According to Baumrind, authoritative parenting involves high levels of nurturance, involvement, and control; authoritarian parenting involves control but lacks warmth; and permissive parenting is characterized by a warm but undemanding approach to childrearing. Although Baumrind's (1967) typology was widely accepted and stimulated much of the research on parenting in subsequent years, it was based on research with well-functioning, middle class-Caucasian families living in the United States. Thus, Baumrind's (1967) typology was criticized on its applicability to populations other than those from which the typology was

developed (Darling & Steinberg, 1993). In an attempt to address this limitation, Maccoby and Martin (1983) extended Baumrind's (1967) theory by defining parenting style using two dimensions: responsiveness and demandingness. Responsiveness refers to parent-child interactions that are supportive, reciprocal, and warm but that also promote self-respect for both the parent and child (Baumrind, 2005). Demandingness on the other hand, refers to actions that communicate parental expectations (Baumrind, 2005). Combining these dimensions (responsive/unresponsive and demanding/undemanding) resulted in four parenting styles: the authoritarian, authoritative, indulgent, and neglectful typologies. It should be noted that whereas Baumrind identified a permissive typology, Maccoby and Martin (1983) differentiated between two types of permissive parenting: indulgent and neglectful parenting. The indulgent typology, like Baumrind's permissive typology, involved high levels of responsiveness and low levels of demandingness. The neglectful typology was characterized by low levels of both nurturance and control. The introduction of a fourth typology was an improvement over Baumrind's (1967) work as it allowed for the inclusion of neglectful parenting, which had not been originally represented. Thus, Maccoby and Martin's (1983) contribution allowed for the systematic examination of the generalizability of Baumrind's typology to populations other than those from which the original typology was developed (Darling & Steinberg, 1993).

Baumrind (1978, 1980, 1991) later used the dimensions of responsiveness and demandingness proposed by Maccoby and Martin (1983) to build on her previous typologies and derived her most recent classifications of parenting behaviours: (1) authoritative parenting which involves being both demanding and responsive, (2) authoritarian parenting which is characterized by demandingness but not responsiveness, (3) permissive parenting which involves being more responsive than demanding, and (4) neglectful or disengaged parenting which is neither demanding nor responsive. According to Baumrind (1991), authoritative parenting is the

most supportive of the parenting styles and promotes psychosocial wellness in children while neglectful and disengaged parenting is the most harmful to children.

Baumrind's (1967, 1978, 1980, 1991) typology has been used extensively to study parenting (Durbin, Darling, Steinberg, & Brown 1993; Gartstein & Fagot, 2003; Glasglow, Dornbusch, Troyer, Steinberg, & Ritter, 1997; Kaufmann, Gesten, & Santa Lucia, 2000; McWayne, Owsianik, Green, & Fantuzzo, 2008; Pettit, Bates, & Dodge, 1997; Strage & Swanson-Brandt, 1999). However, the typology approach to defining parenting has three major limitations. First, a parenting typology does not allow us to understand how or why global parenting styles influence child development (Darling & Sterling, 1993; Lewis, 1981). Second, the typology approach is not useful in discerning what parenting behaviours are associated with which effects on the parent-child relationship and on developmental outcomes (Darling & Sterling, 1993). Finally, a typology approach to defining parenting is not useful as parental responses may vary depending on the situation and child. Therefore, another approach may prove useful in this regard.

Parenting practices. Parenting styles or global characteristics provide the context for parenting practices, another approach that has been used to define and study parenting (Darling & Steinberg, 1993). Early socialization researchers who used the parenting practices approach focused on describing observable socialization behaviours (Darling & Steinberg, 1993). Parenting practices refer to specific, goal-directed behaviours that can be observed when parents interact with their children (Darling & Steinberg, 1993). Parenting practices are seen as having direct impact on outcomes, have been of interest to researchers, and have also contributed to our understanding of parental influence (Darling & Steinberg, 1993; Lee, Daniels, Kissinger, 2006). Researchers continue to use this approach to study specific parenting behaviours and their influences on child development and the parent-child relationship

(Bean, Bush, McKenry, & Wilson, 2003; Lee et al., 2006; Prevatt, 2003).

Parenting practices can be conceptualized on a continuum of behaviours (Graziano, 1994). At one end of the spectrum are non-punitive parenting practices (e.g., establishing rules for misbehaviour, reinforcing appropriate behaviour, redirecting children's attention in response to misbehaviour) and non-physical forms of punishment (e.g., withholding privileges and using penalties in response to misbehaviour). At the other end of the spectrum are harsh or coercive parenting behaviours that reach the level of "abuse" such as physical or psychological aggression (e.g., hitting, kicking, burning, yelling, calling a child names). It is important to note that although parenting practices can be conceptualized to fall along this continuum of behaviours, the impact of the parental action is really in the child's experience.

Parenting strategies that fall on the positive end of the continuum may be used to prevent or to correct misbehaviour. Preventative parenting strategies are actions used to encourage good behaviour prior to the occurrence of misbehaviour while corrective parenting strategies are actions used in response to and intended to correct misbehaviour (Socolar, 1997; Straus & Fauchier, 2007). Further, corrective parenting strategies involve both mildly punitive as well as non-punitive parenting behaviours (Straus & Fauchier, 2007). It should be noted that "good behaviour" and "misbehaviour" are often misconstrued by parents. For instance, a parent with minimal child development knowledge may interpret a child's behaviour as "misbehaviour" when the child may only be behaving according to her developmental stage. An example of this would be a one year old repeatedly dropping her toys, learning how objects affect each other and how baby affects objects, and a mother interpreting this as misbehaviour.

In the present study, parenting was defined using the parenting practices approach (Darling & Steinberg, 1993). The focus was on specific, goal-directed parenting behaviours: use of physical punishment, non-physical forms of punishment, and non-punitive parenting

behaviours. As the IPS-C included information regarding parental use of coercive parenting practices (parental use of spanking included), coercive parenting behaviours were used to examine Belsky's (1984) postulate. The definitions of the parenting behaviours of interest for the present study are presented next.

Coercive Parenting Practices

Coercive parenting practices are behaviours such as hitting, shouting, scolding, becoming angry, arguing, or threatening a child that have been shown to be ineffective in dealing with misbehaviour and encouraging lasting positive behaviour from children (Bor & Sanders, 2004; Sanders et al., 2008; Strassberg et al., 1994; Strassberg & Treboux, 2000). These power assertive behaviours may or may not involve expression of anger or expressive aggression (Straus & Fauchier, 2007). They also: (1) arouse anger and hostility in children, (2) elicit opposition or unwillingness to comply with parental demands, (3) provide a model of aggression as a means of resolving interpersonal problems with others, (4) do not teach desired behaviour, (5) do not communicate the negative effects of the misbehaviour, (6) do not promote awareness of and sensitivity to the needs and feelings of others involved, and (7) can lead to more concerning behaviours (e.g., aggression) and negative developmental outcomes (Afifi et al., 2006; Anda et al., 2006; Durrant et al., 2004; Grusec & Goodnow, 1994; Straus & Fauchier, 2007).

In the present study, the coercive parenting behaviours of interest were those that make up the Coercive Parenting Subscale of the Parenting and Family Adjustment Scales –PAFAS (readily available in the IPS-C dataset). These behaviours are spanking, shouting, getting angry at the child, making the child feel bad for the misbehaviour, arguing with the child about the misbehaviour, and getting annoyed with the child (Sanders, Morawska, Haslam, Filus, & Fletcher, 2014). Although PAFAS includes one item that measures parental use of spanking, additional dimensions of physical punishment (e.g., hitting with object, shaking, washing child's

mouth out with soap) were of interest for the Triple P component of this research. The definition of physical punishment used in the present study is described next.

Physical Punishment

The terms physical discipline, corporal punishment, and physical punishment have been used interchangeably (Ateah, Secco, & Woodgate, 2003; Gershoff, 2002; Rodriguez & Sutherland, 1999). However, some authors have highlighted differences between the terms. Durrant et al. (2004) stated that while discipline refers to the protection, instruction, and guidance of children, physical punishment involves the use of force, so it does not constitute discipline. And while spanking often refers to striking a child with an open hand, corporal punishment has connotations of acts such as belting and caning (Durrant et al., 2004).

Physical punishment has been defined as “an action intended to cause physical discomfort or pain to correct a child’s behaviour, to ‘teach a lesson’, or deter the child from repeating the behaviour” (Durrant et al., 2004, p.1). The punishment may be administered with the hand or an object, or may involve other forms of force such as making a child eat noxious substances, depriving children of needed food or water, shaking, kicking, or punching (Durrant et al., 2004; Durrant & Rose-Krasnor, 1995; Holden & Zambarano 1992; Straus, 1994). When physical punishment is conceptualized as an action intended to change behaviour through the use of pain, the question that has arisen is: when does physical punishment become abuse?

From a human rights perspective, there is no distinction between physical punishment and physical abuse because the use of physical force against a child is in itself an act of violence (Durrant, 2008a). A number of researchers agree that physical punishment and physical abuse are not distinct phenomena but related concepts (Durrant & Rose-Krasnor, 1995; Gershoff, 2002; Garbarino, 1977; Greven, 1991; Salzinger, Feldman, Hammer, & Rosario, 1991; Straus & Kantor, 1994; Whipple & Richey, 1997; Wolfe 1987). Attempts to differentiate between physical

punishment and physical abuse have been unsuccessful (Durrant, 2002; Durrant et al., 2004). For instance, focusing on social norms to clearly demarcate punishment from abuse has not proved useful as definitions of what is appropriate versus inappropriate are based on one's own experience and will vary between individuals and across cultures (Durrant, 2002; Gonzalez, 2005; Graziano, 1994). Thus, what one may see as abuse another may see as a normal disciplinary practice.

Distinguishing between physical punishment and abuse based on injury is also problematic. The medical community and legal definitions of abuse consider the presence of injury as evidence that abuse has occurred (Kolko, 1998; Sigurdson & Reid, 1996; Tower, 2002; Wolfe, 1999). This approach implies that non-injurious acts ("physical punishment") and injurious acts ("abuse") are separate phenomena that lead to different outcomes (Durrant, 2002). However, research to date suggests that both of these acts have the same generative source: the use of physical force to correct a child's behaviour (Graziano, 1994; Kadushin & Martin, 1981; Trocmé, Fallon, MacLaurin, & Copp, 2002; Trocmé et al., 2001; Wolfe, 1987; Zigler & Hall, 1989). Whether these acts lead to injury depends on the size, vulnerability, and strength of the child relative to those of the caregiver (Durrant, 2002; Gonzalez, Durrant, Chabot, Trocmé, & Brown, 2008). Another problem with this approach is that it implies that in the absence of injury, the well-documented psychological harms associated with use of physical punishment do not constitute abuse (Coyl et al., 2002; Csorba et al., 2001; Durrant, 2002; Durrant et al., 2004; Eamon, 2001; Gershoff, 2002; Graziano et al., 1996; Lau, Liu, Cheung, Yu, & Wong, 1999).

Attempts to distinguish between physical punishment and abuse based on parental intent do not render a clear distinction between the concepts either (Durrant, 2002; Durrant et al., 2004). According to this approach, parents who use physical punishment intend to correct a

child's behaviour while those who abuse their children intend to inflict harm (Durrant, 2002; Durrant, 2008a; Parke & Colmer 1975; Wolfe, 1999). However, both early and recent research suggests that the majority of physical abuse cases are cases of physical punishment (Coontz & Martin, 1988; Gil, 1970; Kadushin & Martin, 1981; Trocmé et al., 2002; Trocmé et al., 2001; Trocmé & Durrant, 2003; Trocmé & McPhee, 1995; Vasta, 1982). Establishing a clear distinction between physical punishment and physical abuse has thus proven elusive. For the purposes of this study, the definition of physical punishment proposed by Durrant et al. (2004) was used. Physical punishment was defined as: "an action intended to cause physical discomfort or pain to correct a child's behaviour, to 'teach a lesson', or deter the child from repeating the behaviour" (Durrant et al., 2004, p.1).

Non-Physical Punishment: Consequences for Misbehaviour

Natural, social, and imposed consequences for behaviour refer to events intended to teach children responsibility and that all actions have consequences (Martin & Pear, 2010; Wilson^a, n.d.). Natural and social consequences occur naturally and are not arranged by a parent (Martin & Pear, 2010; Wilson^b, n.d.). Natural consequences are those that occur in the environment as a result of the child's behaviour (e.g., a toy may break if the child throws it on concrete) while social consequences arise from the child's interactions with others (e.g., if a child fights with a friend, the friendship may suffer). Imposed consequences on the other hand are those arranged by the parent (Martin, 2011; Martin & Pear, 2010; Wilson^b, n.d.). The following consequences arranged by parents were of interest for the present study: withholding privileges, penalties, and time-out. In the present study, the definitions for withholding privileges and penalties were based on Straus and Fauchier (2007) Dimensions of Discipline Inventory. Withholding privileges referred to removing, restricting, or withholding desired objects or activities (e.g., withholding a child's allowance, not being allowed to watch favourite cartoons) while penalties referred to

being required to do something unpleasant (e.g., extra chores, give up something of value, apologize) as a result of the misbehaviour (Straus & Fauchier, 2007). Time-out referred to the removal of a child from rewarding stimuli to a less reinforcing area for a specified time period following a particular behaviour (Jones & Downing, 1991; Sanders, Prior, & Ralph, 2009). Time-out was designed as a consequence for misbehaviour and to help children self-regulate their emotions (Joshi, Capozzoli, & Coyle, 1988; Morawska & Sanders, 2011). Time-out may be classified as non-exclusionary where the child remains in the environment where the problem occurred or exclusionary where the child is removed to another area (Harris, 1985). The latter is of interest for the present study.

When time-out, penalties, and withholding privileges are used as consequences for behaviour and are presented following a particular child behaviour, the purpose is to cause that behaviour to decrease in frequency, so by definition they become punishments (Martin & Pear, 2010). Parents tend to use time-out, penalties, and the withholding of privileges as punishment but are often unfamiliar with punishment's harmful effects or principles of its effective usage. Punishment is only effective when: (1) rules regarding undesirable (punishment) and desirable (privileges) behaviour are discussed in advance, (2) it is applied in response to a specific behaviour, (3) it is delivered in a calm manner, (4) it is applied immediately following every instance of the undesired response, (5) the consequence for the misbehaviour is in fact effective or punishing and can be presented following every instance of the undesirable behaviour, (6) a desirable alternative response is concurrently reinforced to increase its occurrence, and (7) the causes of the punished behaviour are minimized which involves identifying what is eliciting and reinforcing the behaviour (Martin & Pear, 2010). The use of punishment as a means of correcting misbehaviour is controversial as: (1) the punished behaviour is likely to reappear after the punishment is withdrawn, (2) it does not teach desirable

behaviour, (3) it may suppress future approximations of desirable behaviours, (4) it may lead children to behave only to avoid punishment or getting caught, (5) it can cause the user to rely heavily on it and neglect using non-punitive strategies for managing misbehaviour (6) it may teach children to apply aversive stimuli to others, (7) it may lead to emotional side-effects such as low self-esteem (children may dislike themselves for getting the punishment), fearfulness, anger, resentment, or feeling “bad”, and (8) the punishment often becomes associated with the person who delivers it (the parent) and the child may learn to dislike the parent and avoid him/her (Martin & Pear, 2010; Wilson^a, n.d).

Given punishment’s harmful effects and its potential for misuse, some professionals recommend that punishment be used for misbehaviour that cannot be eliminated in other ways and only in conjunction with non-punitive parenting strategies (Martin & Pear, 2010). Parents need to be aware of how to use non-physical forms of punishment most effectively and in combination with other parenting strategies. Time-out, penalties, and withholding privileges are parenting strategies promoted in the parent education program of interest for the present study (the Positive Parenting Program or Triple P). However, these strategies are recommended to be used in conjunction with other non-punitive strategies to minimize child behaviour problems and optimize positive developmental outcomes (Morawska & Sanders, 2011).

Non-Punitive Parenting Responses

A wide range of non-punitive parenting strategies are available to parents who wish to promote optimal child development and prevent or reduce child behaviour problems (Canadian Paediatric Society, 2004). Using non-punitive parenting strategies benefits not only the child but the parent-child relationship. Children learn how to behave and take responsibility for their behaviour in the context of a warm, healthy parent-child relationship (Wilson^c, n.d.) The following are strategies promoted by Triple P and were thus of interest for the present

study: Explaining rules or teaching desirable behaviour, using rewards to encourage desirable behaviour or to stop misbehaviour, monitoring children's behaviour, planned ignoring for minor misbehaviour, and diverting a child away from misbehaviour or toward desirable behaviour.

Modeling desired behaviour and explaining rules, expected behaviours, and why some behaviours are inappropriate can improve the quality of parent-child relationships and facilitate the learning of rules as well as family and cultural standards of behaviour (Lee et al., 2008; Murry et al., 2005). Modeling refers to presenting a sample of a given behaviour to encourage similar behaviour while a rule refers to a statement describing the relationship between behaviours and their consequences (Alberto & Troutman, 2009; Martin & Pear, 2010). For rules to be effective, they must identify: (1) the desired behaviour, (2) a deadline for performing the desired behaviour, (3) the circumstances in which the desired behaviour is to occur, and (4) probable and sizeable consequences for following and for not following the rule (Alberto & Troutman, 2009; Hester et al., 2009; Martin & Pear, 2010). For modeling to be effective: (1) the behaviour and its consequence should be shown, (2) the person modeling the behaviour should be a competent individual with status or prestige, (3) more than one person should model the specific behaviour, and (4) modeling should be combined with rules (Alberto & Troutman, 2009; Martin & Pear, 2010). Parents often combine rules with modeling. For example when teaching a child how to put her toys away, a parent may say "Let's do it this way" while modeling the desired behaviour.

While rules and modeling of desired behaviour may encourage prosocial behaviour, positive incentives are powerful motivators and produce good behaviour more frequently. The effectiveness of positive incentives is grounded in the principle of positive reinforcement which states that if a reinforcer is presented immediately after a given behaviour, that behaviour will be strengthened and that person is more likely to engage in that behaviour in the future

(Alberto & Troutman, 2009; Martin & Pear, 2010). Thus, a reinforcer is an event that when presented immediately following a behaviour increases the likelihood of its occurrence (Alberto & Troutman, 2009; Martin & Pear, 2010). There are four types of reinforcers: consumable, activity, possessional, and social (Martin & Pear, 2010). Consumable reinforcers refer to things one loves to eat such as candy or cookies whereas activity reinforcers refer to favourite activities such as watching television or playing a game. Possessional reinforcers refer to opportunities to enjoy favourite items such as wearing a favourite article of clothing. Finally, social reinforcement includes praise, physical affection, and non-verbal attention such as smiles or nods (Martin & Pear, 2010). Based on the principle of reinforcement, desired behaviour can increase in frequency if a reinforcer is presented immediately after the behaviour. For example, a two year old's attempts to say "hi" will increase in frequency if the child is praised following her first attempt. However, it is also possible to increase the frequency of good behaviour when rewards are not immediately available. Rules may influence children to work for delayed reinforcers (Martin & Pear, 2010). For example, a child may clean up her room in the morning if she is told her father will bring her a toy in the afternoon.

One pitfall of using reinforcers is that they can undermine intrinsic motivation. It is thus recommended that once the behaviour is occurring at a desirable rate, reinforcers be eliminated gradually (Martin & Pear, 2010). Using natural reinforcers in the environment to maintain the behaviour is recommended (Martin & Pear, 2010). For the child learning to say hi in the example above, a natural reinforcer may be another child responding with a "hi".

To ensure reinforcement of desired behaviour, adherence to rules, and children's safety, parental supervision is recommended (Canadian Paediatric Society, 2004). Parental monitoring is critical not only in childhood but in adolescence (Brody, Murry, Kim, & Brown, 2002; Spera, 2005). Parental monitoring can refer both to parents' active role in tracking their children's

whereabouts in the home, school, and community (Stattin & Kerr, 2000) and to their knowledge of their children's whereabouts, activities, and friends (Hayes, Hudson, & Matthews, 2003). Although parents report monitoring both children and adolescents, the means through which children and adolescents are monitored differs (Hayes et al., 2003; Richards, Miller, O'Donnell, Wasserman, & Colder, 2004). Whereas adolescents are monitored through indirect means such as questions as to their whereabouts, children are monitored through direct observation (Hayes et al., 2003).

When children behave in ways to get attention, ignoring the attention-seeking behaviour and paying attention to or reinforcing good behaviour can cause the problem behaviour to decrease in frequency (Martin & Pear, 2010; Ryan, Sanders, Katsiyannis, & Yell, 2007). Planned ignoring is an extinction procedure designed to reduce or eliminate a behaviour by withdrawing the reinforcer that is maintaining it (Sheuermann & Hall, 2008). Some positive parenting programs promote planned ignoring as a strategy to deal with minor problem behaviour such as whining, using a silly voice, and saying rude words (Sanders, Markie-Dadds, & Turner, 2005). These programs define planned ignoring as deliberately not paying attention to a child when a minor problem behaviour occurs (Sanders, Markie-Dadds, & Turner, 2005). Parents are encouraged to keep ignoring as long as the problem behaviour continues and to praise the child as soon as the child stops the problem behaviour and behaves appropriately (Sanders, Markie-Dadds, & Turner, 2005; Sanders & Turner, 2005). Through planned ignoring children can learn to discriminate between appropriate and inappropriate behaviour (Hester et al., 2009). For planned ignoring to work, parental attention must be reinforcing the problem behaviour and planned ignoring should occur immediately following every instance of the problem behaviour. Planned ignoring is most effective when combined with rules and positive reinforcement for good behaviour (Hester et al., 2009; Martin & Pear, 2010). For example, a mother may tell her

child she will speak to her only when the child stops a certain behaviour. The mother would then speak to the child only when the certain behaviour stops. The use of extinction and thereby planned ignoring can have side-effects: (1) the problem behaviour may get worse before it gets better, (2) planned ignoring may produce mild aggression or frustration, and (3) the extinguished behaviour may reappear after a delay (Martin & Pear, 2010). However, consistently ignoring the problem behaviour after it occurs, even after it reappears, can result in the weakening or cessation of the problem behaviour (Martin & Pear, 2010).

Another non-punitive strategy used to deal with misbehaviour is to redirect or distract a child who misbehaves (Canadian Paediatric Society, 2004). Redirecting behaviour involves guiding the child away from misbehaviour and toward desirable behaviour. Redirection is a guidance technique that shifts attention from one behaviour to another and introduces children to alternative acceptable behaviour (Wilson^c, n.d.). Guidance in this instance is defined as applying physical contact to encourage an individual to engage in a specific behaviour (Martin & Pear, 2010). It is often one component of a teaching procedure in which rules, modeling, and reinforcement are also used (Martin & Pear, 2010). For example, if a child is pushing her friend repeatedly while playing in the living room, the child's mother may tell the child he/she should not do that, take the child's hand and tell him/her that they will go get a book to read. Using positive words and giving the child choices makes redirecting more effective (Wilson^c, n.d.). In the above mentioned example, the child's mother may ask the child which book he/she would like to read. Mother and child would then read the book chosen by the child.

Redirection is most appropriate for infants and toddlers who are not able to regulate behaviour based on verbal prohibitions, directions, or explanations (Canadian Paediatric Society, 2004). Guidance and verbal explanations are often used to teach older children to follow instructions so that instruction without guidance can then be used to encourage

desirable behaviours (Martin & Pear, 2010). For example, a father teaching his child to cross the street may hold the child's hand, use rules (say "look both ways"), and model looking both ways before crossing the street.

In the present study, the definitions used for the non-punitive strategies of interest were based on Straus and Fauchier's (2007) Dimensions of Discipline Inventory (DDI). Explaining/Teaching referred to establishing and explaining rules as well as demonstrating desirable behaviour. Rewarding was defined as giving rewards (e.g., favourite things, activities) and praise (e.g., encouragement, approval) for desired behaviour or for stopping misbehaviour. Monitoring was defined as telling the child you are watching or checking on the child to see if they are misbehaving. Planned ignoring referred to withdrawing attention while the problem behaviour occurred. Finally, diversion referred to redirecting the child's attention (e.g., getting child to do something else) in response to misbehaviour.

Parental use of non-punitive parenting strategies, non-physical forms of punishment, physical punishment, and coercive parenting behaviours were examined in the present study. The sources of influence on parenting behaviour are discussed next as the theoretical framework for the present study is introduced.

Chapter 2: Theoretical Framework

In the present study, an ecological approach was used to examine parenting behaviour. The overarching framework that was used was Belsky's (1984) Determinants of Parenting model. Belsky's (1984) original model, criticisms of the model, and recent progress in the study of the determinants of parenting are first discussed. Sources of influence on parenting behaviour: child, parent, and socio-contextual characteristics are then presented. The characteristics of interest for the present study are then identified. Research on the relative importance of the sources of influence on parenting behaviour is then reviewed before a brief summary of this chapter is presented.

Determinants of Parenting Model

Belsky (1984) proposed that parenting is directly influenced by: (1) parent characteristics, (2) child characteristics, and (3) the social context in which the parent-child dyad exists. As originally formulated, the model includes parent characteristics such as developmental history (i.e., child-rearing history) and personality and contextual influences such as sources of stress and support (marital relations, social networks, and employment). Although specific child characteristics are not identified in the original model, the child's influence on parenting is acknowledged. Belsky (1984) proposes that the behaviour and emotional proclivities of children may affect the parenting they receive. Belsky's (1984) model not only assumes that child, parent, and social-contextual factors influence parenting directly but that parental factors (e.g., parents' developmental history and personality) shape parenting indirectly by influencing the context in which the parent-child dyad exists (e.g., marital relations, social networks, employment). Social-contextual factors also influence parenting indirectly by influencing parental characteristics which in turn influence parenting and ultimately child development (Belsky, 1984).

Belsky (1984) proposed that the most influential determinant of effective parenting is

the parent's characteristics (personality and developmental history) followed by contextual sources of support. Belsky further argued that of all the contextual sources of support outlined in the model, the marital relationship, or primary partner relationship, is the principal support system for parents followed by social networks. That is, parenting by someone who is mature and psychologically healthy, is less likely to be influenced by child characteristics (e.g., temperament) and contextual sources of stress such as marital problems (Holden, 1997). Poor psychological well-being, marital problems, and few social supports make it harder for parents to provide growth-promoting care (Belsky, 1984).

Criticisms of Belsky's (1984) model have included: (1) failure of the model to highlight the reciprocal influence of child characteristics and parental characteristics on each other before they influence parenting (Sherifali & Ciliska, 2006), (2) failure of the model to acknowledge the bi-directional interactions between child characteristics and parenting (Sherifali & Ciliska, 2006), and (3) questioning the applicability of the model to other cultures, across various developmental ages of children, and to both mothers' and fathers' parenting (Bogenschneider et al., 1997; Van Bakel & Riksen-Walrave, 2002).

Over the past two decades, research on the determinants of parenting has addressed all these criticisms. Belsky's (1984) model has been used as an overarching framework to study additional child, parent, and contextual factors not included in his original model (Belsky, Crnic, & Woodworth, 1995; Belsky & Jaffee 2006; Downing-Matibag 2009; Hanan & Luster, 1991; Neitzel & Dopkins-Stright, 2004; Scher & Mayseless, 2000; Van Bakel & Riksen-Walraven, 2002). Important progress has also been made in the study of the determinants of parenting. Recent research has focused on: (1) examining the interrelation between determinants before they influence parenting, (2) studying processes linking determinants of parenting with child development outcomes, (3) considering the parenting of fathers or 'fathering', and (4)

studying the parenting of school-aged children and adolescents as opposed to the parenting of infants and pre-schoolers only (Belsky & Jaffee, 2006; Van Bakel, & Riksen-Walraven, 2002; Volling & Belsky 1991; Woodworth, Belsky, & Crnic 1996). In addition, research on the determinants of parenting has advanced our understanding of: (1) the determinants of coparenting, (2) the intergenerational transmission of parenting, and (3) Belsky's (1997) differential susceptibility hypothesis which states that some children, for temperamental or genetic reasons (those with 'difficult' temperament or negative emotionality) are more susceptible to both the beneficial effects of supportive parenting and the adverse effects of unsupportive parenting. That is, 'difficult' or 'vulnerable' children may be adversely affected by insensitive parenting but may also reap the most benefit from supportive parenting (Bakermans-Kranenburg, Van IJzendoorn, Pijlman, Mesman, & Juffer, 2008; Belsky, 1997; Belsky, 2005; Belsky, Bakermans-Karenburg, & Van IJzendoorn, 2007; Belsky, Crnic, & Gable, 1995; Belsky, Hsieh, & Crnic, 1998; Belsky, Jaffee, Hsieh, Silva, 2001; Belsky, Jaffee, Sligo, Woodward, & Silva, 2005; Conger, Belsky, & Capaldi, 2009; Dopkins-Stright & Stigler-Bales, 2003; Pluess & Belsky, 2009; Pluess & Belsky, 2010; Serbin and Karp, 2003).

Sources of Influence

The determinants of parenting according to Belsky's (1984) model are presented in the following sections. As each source of influence is introduced, factors that have been consistently associated with parental use of physical punishment will be highlighted. Although the present study examined parental use of non-punitive parenting strategies and non-physical forms of punishment in addition to use of physical punishment, the review focuses on predictors of physical punishment for various reasons. First, physical punishment is the primary outcome of interest in the present study. Second, physical punishment has received extensive research attention compared to other parenting behaviours such as non-punitive strategies or non-physical

forms of punishment (Dasen & Mishra, 2000; Rogoff, 2003; Lansford, 2010; Socolar, 1997; Socolar & Stein, 1996). Finally, a focus on the determinants of harmful parenting behaviour can facilitate an understanding of factors that may foster growth-promoting parenting (Belsky & Jaffee, 2006; Belsky & Vondra, 1989). Following the overview of child, parent, and socio-contextual factors that have been associated with parental use of physical punishment, research on the child, parent, and socio-contextual factors of interest for the present study are discussed. Research on the relative importance of each of the domains of influence according to Belsky's (1984) model is then reviewed before a summary of the chapter is presented.

Child characteristics. The relationship between parental use of physical punishment and child age, gender, and type of child transgression has received much research attention. Studies that have examined the relationship between parental use of physical punishment and child age have found that although physical punishment is used with children who are between the ages of newborn and two years (Bordin, Paula, do Nascimento, & Duarte, 2006; Coyl, Roggman, & Newland, 2002; Oburu & Palmérus, 2003; Schluter et al., 2007; Theodore, Chang, Runyan, Hunter, Bangdiwala, & Agans, 2005; Trocmé & Durrant, 2003; Wauchope & Straus, 1992; Woodward et al., 2007; Zolotor, Robinson, Runyan, Barr, & Murphy, 2011) as well as school-aged and older children (Abolfotouh, El-Bourgy, Seif El Din, & Mehanna, 2009; Alyahri & Goodman, 2008; Ateah & Parkin, 2002; Bordin et al., 2006; Bordin et al., 2008; Clément et al., 2000; De Zoysa, Newcombe, & Rajapakse, 2008; Lansford et al., 2010; Loeber et al., 2000; Mahoney et al., 2000; Mathurin, Gielen, & Lancaster, 2006; Oburu & Palmérus, 2003; Ohene, Ireland, McNeely, & Borowsky, 2006; Tang, 2006; Trocmé & Durrant, 2003; Wauchope & Straus, 1992; Wilson, Wilson, & Fox, 2002; Woodward et al., 2007), physical punishment is most commonly used with preschoolers who desire independence, do not have the cognitive capacity to understand the impact of their actions, seek to assert their

autonomy, and do not yet fully understand danger (Barkin, Scheindlin, Ip, Richardson, & Finch, 2007; Bordin et al., 2006; Bradley, Corwyn, Pipes-McAdoo, & Garcia-Coll, 2001; Clément et al., 2000; Durrant & Rose-Krasnor, 1995; Gershoff, 2002; Horn, Cheng, Joseph, 2004; Institut de la Statistique du Québec, 2012; Kaplan, 1991; Lansford & Deater-Deckard, 2012; Mahoney et al., 2000; Oburu & Palmérous, 2003; Regalado, Sareen, Inkelas, Wissow, & Halfon, 2004; Schluter, Sundborn, Abbott, & Patterson, 2007; Tang, 2006; Wauchope & Straus, 1992; Woodward, Fergusson, Chesney, & Horwood, 2007).

Child gender has also been consistently associated with parental use of physical punishment with boys being more likely to be physically punished than girls (Alyahri & Goodman, 2008; Abolfotouh et al., 2009; Alyahri & Goodman, 2008; Clément et al., 2000; Day, Peterson, & McCracken, 1998; Durrant & Rose-Krasnor, 1995; Gershoff, 2002; Giles-Sims, Straus, & Sugarman, 1995; Institut de la Statistique du Québec, 2012; Knutson & Selner, 1994; Lansford et al., 2010; Mathurin et al., 2006; McKee et al., 2007; Mahoney et al., 2000; Smith & Brooks-Gunn, 1997; Straus & Yodanis, 1996; Tajima, 2000; Tang, 2006; Wauchope & Straus, 1992; Wilson, Wilson, & Fox, 2002; Zolotor et al., 2011). This gender difference may be due to differential parental expectations of boys and girls or social norms regarding the use of physical punishment (Bugental & Happaney, 2004; MacKenzie, Nicklas, Brooks-Gunn, & Waldfogel, 2011).

Type of child transgression has also been associated with parental use of physical punishment. Parents are more likely to use physical punishment in response to some behaviours than others such as self-endangerment and other behaviours that are perceived to be serious by the parent (Ateah & Durrant, 2005; Bradley, 1998; Catron & Masters, 1993; Durrant, 1994; Durrant et al., 2004; Graziano et al., 1996; Holden et al., 1995; Horn et al., 2004; Mulvaney & Mebert, 2007; Socolar & Stein, 1995; Tang, 2006). Children's externalizing behaviours, which

include disruptive, hyperactive, and aggressive behaviours (Eisenberg et al., 2001), have also been associated with parental use of physical punishment (Campbell, Pierce, Moore, Marakovitz, & Newby, 1996; MacKenzie, Niclas, Waldfogel, & Brooks-Gunn, 2013; O'Leary, Smith Slep, & Reid, 1999; Stormshak, Bierman, McMahon, & Lengua, 2000). Children with externalizing behaviour problems are more likely to experience physical punishment than children with internalizing problems or children whose behaviour falls within normal limits (Burbach, Fox, & Nicholson, 2004; DeKlyen, Biernbaum, Speltz, & Greenberg, 1998; Gershoff, Lansford, Sexton, Davis-Kean, & Sameroff, 2012; Grogan-Kaylor & Otis, 2007; Nicholson, Fox, & Johnson, 2005; Perron, Taylor, & Guterman, 2011). Using physical punishment to deal with disruptive, hyperactive, and aggressive behaviours may be due to parental frustration or lack of knowledge of alternative ways of approaching these children's difficulties (MacKenzie et al., 2011).

Parent characteristics. Various parental factors have been associated with parental use of physical punishment. These include: age, gender, educational level, affect (depression, anger), interpretation of the child's behaviour, attitudes toward physical punishment, experience of physical punishment in childhood, religious ideology, and participation in parent education program. Results of studies that have examined the relationship between physical punishment use and parents' age, gender, and educational level are mixed. Whereas some studies reveal high rates of physical punishment use for younger parents, other studies have found high rates of use for older parents or no relationship between parent age and use of physical punishment (Culp, McDonald-Culp, Dengler, & Maisano, 1999; Dietz, 2000; Eamon, 2001; Eamon & Zuel, 2001; Fox, 1995; Grogan-Kaylor & Otis, 2007; Holden, Miller, & Harris, 1999; Kelley, Power, & Wimbush, 1992; Oburu & Palmérus, 2003; Regalado et al., 2004; Smith & Brooks-Gunn, 1997; Tajima, 2000; Tang, 2006; Wissow, 2001; Woodward et al., 2007; Wolfner & Gelles, 1993; Zolotor et al., 2011). Similarly, the relationship between parental use of physical punishment and

parents' gender is unclear. Whereas some studies reveal that mothers use physical punishment more than do fathers, other studies indicate that fathers use it more than mothers or that there are no gender differences (Day et al., 1998; Duncan, 1999; Gershoff, 2002; Holden et al., 1999; Lansford et al. 2010; Mahoney et al., 2000; McKee et al., 2007; Schluter et al., 2007; Straus & Yodanis, 1996; Tang, 2006; Wilson et al., 2002; Wissow, 2001; Woodward et al., 2007). Results of studies that have examined the relationship between physical punishment use and parental level of education are also mixed. Whereas some studies have found no relationship between parental use of physical punishment and parental level of education (Giles-Sims et al., 1995; Grogan-Kaylor & Otis, 2007; Regalado et al., 2004; Zolotor et al., 2011) other studies have found higher rates of physical punishment use by parents with lower levels of education (Abolfotouh et al., 2009; Alyahri & Goodman, 2008; Barkin et al., 2007; Culp et al., 1999; Dietz, 2000; Eamon, 2001; Kelley et al., 1992; Lansford & Deater-Deckard, 2012; Wissow, 2001; Oburu & Palmérus, 2003; Tang 2006; Wolfner & Gelles, 1993; Xu, Shu-Chuan, Tung, & Dunaway, 2000) or higher rates by more educated parents (Horn et al., 2004).

Parental interpretation of the child's intent and parental affect (e.g., anger and depression) have also been associated with physical punishment use. Parents are more likely to use physical punishment if they believe the child misbehaved intentionally (Ateah, 2003; Ateah & Durrant, 2005; Durrant & Rose-Krasnor, 1995; Durrant et al., 2004; Graziano et al., 1996; Rodriguez & Sutherland, 1999). Several studies also reveal higher rates of physical punishment use for depressed parents than non-depressed parents (Bordin et al., 2006; Durrant et al., 2004; Eamon, 2001; Eamon & Zuehl, 2001; Graziano et al., 1996; McLean, Minkovitz, Strobino, Marks, & Hou, 2006; Regalado et al., 2004; Shin & Stein, 2008; Wissow, 2001). Parents are also more likely to use physical punishment if they react with anger to the child's transgression (Ateah, 2003; Ateah & Durrant, 2005; Holden, Coleman, & Schmidt, 1995; Jackson et al., 1999;

Regalado et al., 2004; Straus, 1996; Wissow, 2001).

Parental use of physical punishment has also been associated with parental attitudes towards physical punishment, parents' childhood experience of physical punishment, and religious ideology. Research suggests that parents who have favourable attitudes towards physical punishment (Alyahri & Goodman, 2008; Ateah & Durrant, 2005; Bower-Russa et al., 2001; Clément et al., 2000; Durrant et al., 2004; Holden et al., 1999; Jackson et al., 1999; Pinderhughes, Dodge, Bates, Pettit, & Zelli, 2000; Taylor, Hamvas, Rice, Newman, & DeJong, 2011; Socolar & Stein, 1995; Vittrup, Holden, & Buck, 2006) and who experienced physical punishment as children (Abolfotouh et al., 2009; Alyahri & Goodman, 2008; Ateah & Parkin, 2002; Barkin et al., 2007; Bordin et al., 2006; Bower-Russa, Knutson, & Winebarger, 2001; Clément et al., 2000; Chung, Mathew, Rothkopf, Elo, Coyne, & Culhane, 2009; Combs-Orme & Cains, 2008; Deater-Deckard, Lansford, Dodge, Pettit, Bates, 2003; Dietz, 2000; Durrant et al., 2004; Gagné, Tourigny, Joly, Pouliot-Lapointe, 2007; Graziano, et al., 1996; Horn et al., 2004; Rodriguez & Sutherland, 1999; Simons & Wurtele, 2010; Socolar, & Stein, 1995; Tajima, 2000; Wissow, 2001; Woodward et al., 2007) are more likely to use it. Research also suggests that parents affiliated with a biblically conservative orientation (e.g., Conservative Protestantism) are more likely to approve of and use physical punishment (Alwin & Felson, 2010; Ellison, Barkowski, & Segal, 1996; Ellison & Bradshaw, 2009; Ellison & Sherkat, 1993; Gershoff, Miller, & Holden, 1999; Grasmick, Bursik, and Kimpel, 1991; Grasmick, Morgan, and Kennedy, 1992; Grogan-Kaylor & Otis, 2007; Horn et al., 2004; Murray-Swank, Mahoney, & Pargament, 2006; Wiehe, 1990). Literal interpretation of biblical passages endorsing use of physical punishment and making connections between "firm discipline" and a child's spiritual well-being may explain this relationship (Gershoff, 2010, Murray-Swank et al., 2006).

Finally, the relationship between parents' use of physical punishment and their

participation in parent education programs has not been examined and merits research attention. Meta-analyses and individual studies that have examined the impact of parent training programs on parental behaviour have not focused on parental use of physical punishment. These studies have focused primarily on global parenting styles such as laxness, over-reactivity, and verbosity or on sets of parental strategies (e.g., coercive strategies) that include but are not limited to physical punishment (De Graaf, Speetjens, Smit, de Wolff, & Tavecchio, 2008; Lundahl, Risser, & Lovejoy, 2005; Sanders et al., 2008; Sanders et al., 2009).

Socio-contextual characteristics. Various socio-contextual factors have been associated with parental use of physical punishment: family size, stress, family income, and housing type. Studies that have examined the relationship between parental use of physical punishment and family size have found that the greater the number of children in the family, the more likely it is that parents will use physical punishment (Alyahri & Goodman, 2008; Abolfotouh et al., 2009; Asdigian & Straus, 1997; Clément et al., 2000; Eamon & Zuehl, 2001; Dietz, 2000; Durrant et al., 2004; Fox, 1995; González, Trujillo, & Pereda, 2014; Woodward et al., 2007; Xu et al., 2000).

Parents experiencing stress due to single parenthood, marital or relationship conflict, or parenting, are also more likely to use physical punishment (Abolfotouh et al., 2009; Bordin et al., 2006; Clément et al., 2000; Coyl et al., 2002; Culp et al., 1999; Dietz, 2000; Eamon, 2001; Ez-Elarab, Sabbour, Gadallah, & Asaad, 2007; Kelley et al., 1992; Loeber et al., 2000; Mahoney et al., 2000; Oburu & Palméus, 2003; Smith & Brooks-Gunn, 1997; Tajima, 2000; Tang, 2006; Wilson et al., 2002; Wissow, 2001; Xu et al., 2000). The relationship between income and parental use of physical punishment is less clear. Although some studies have found high rates of physical punishment use for lower income parents (Abolfotouh et al., 2009; Bradley, Corwyn, McAdoo, & Garcia-Coll, 2001; Bordin et al., 2006; Clément et al., 2000; Culp et al., 1999; Day

et al., 1998; Fox, 1995; Giles-Sims et al., 1995; Institut de la Statistique du Québec, 2012; Smith & Brooks-Gunn, 1997; Woodward et al., 2007), other studies have found no relationship between these two variables (Durrant and Rose-Krasnor, 1995; Wilson et al., 2002; Zolotor et al., 2011).

The relationship between parental use of physical punishment and economic stress is also unclear. Whereas some studies have found that parents experiencing economic stress are more likely to use physical punishment, other studies have found no relationship between the two variables (Abolfotouh et al., 2009; Bordin et al., 2006; Clément et al., 2000; Conger, Wallace, Sun, Simons, McLoyd, & Brody, 2002; Coyl et al., 2002; Dietz, 2000; Durrant et al., 2004; Eamon, 2001; Holden et al., 1999; Oburu & Palméus, 2003; Straus, 2000; Tajima, 2000; Tang, 2006; Wilson et al., 2002; Woodward et al., 2007; Wolfner & Gelles, 1993). It should be noted that studies providing support for the economic stress- physical punishment association have examined the relationship between parental use of physical punishment and poverty, socio-economic status, income, and employment status as measured by study authors. That is, these constructs have been used as proxies for economic stress.

Finally, the relationship between housing type (own, rent) and parental use of physical punishment has not received much research attention, although much research has focused on how living in disadvantaged neighbourhoods affects parenting practices (Belsky & Jaffee, 2006). These studies have found disadvantaged neighbourhood conditions to be associated with less supportive parenting: less warmth, frequent punishment, inconsistent discipline, and harsh parent-child interactions (Ceballo & McLoyd, 2002, Del Conte & Kling, 2001; Hill & Herman-Stahl, 2002; Klebanov, Brooks-Gunn, & Duncan, 1994; Levanthal & Brooks-Gunn, 2001). Although the research literature supports the link between disadvantaged neighbourhood conditions and less supportive parenting, the literature examining the relationship between housing type and parental use of physical punishment is practically nonexistent. The two research

studies that exist provide little knowledge concerning the impact of housing on parental use of physical punishment. Levanthal and Brooks-Gunn's (2001) analysis of the impact of neighbourhood conditions on parenting examined the relationship between housing and global parenting styles such as maternal warmth and harshness. The exact relationship between housing and parental use of physical punishment was not examined. Only one study has examined the relationship between housing and children's experience of physical punishment (Lau et al., 2005). In this study, private housing as opposed to public housing significantly increased the odds of having experienced physical punishment. Perhaps in that study, those living in public housing were more invested in meeting necessities of daily living (e.g., food, clothing) and/or had jobs that did not allow them to be as engaged in raising their children as caregivers living in private housing.

Characteristics of Interest for the Present Study

The following child, parent, and socio-contextual factors were of interest for the present study and were examined as predictors of coercive parenting². Research on the relationship between these predictors and parental use of physical punishment is highlighted in the following sections.

Child characteristics. Child age, gender, and behaviour problems were primary variables of interest. Previous studies suggest that physical punishment is most commonly used with preschoolers. For example, in a study of the punitive parenting behaviours of a sample of parents of infants, preschoolers, and school-aged children, Woodward, Fergusson, Chesney, and Horwood (2007) examined the extent to which physical punishment use varied as a function of

² It should be noted that originally, this study was to examine predictors of physical punishment, non-physical forms of punishment, and non-punitive parenting strategies through data provided by parents who attended the Triple P sessions. However, getting a large sample size was not possible and International Parenting Survey-Canada (IPS-C) data had to be used. Data on coercive parenting strategies are available in this dataset. Therefore, predictors of coercive parenting were examined.

the child's age. Results indicated that although infants and school-aged children were physically punished (36.7% and 78% respectively), physical punishment was more commonly used with preschoolers (84%). Similarly, a provincial survey of the parenting practices of mothers and fathers of children aged 0 to 17 years in the province of Quebec revealed that physical punishment is most commonly used with preschoolers. In this survey 44% of infants (0 to 2 years of age), 64% of preschoolers (3 to 6 years of age), and 52% of children aged 7 to 10 years had experienced physical punishment in the previous year (Clément et al., 2000). Adolescents experienced physical punishment less frequently: 30% of those between the ages of 11 and 14 years and 19% of those who were 15 years of age or older (Clément et al., 2000).

Research also suggests that boys are more likely to be physically punished than girls. For example, in a study with a sample of parents of fifth and sixth grade children, McKee et al. (2007) examined whether parental use of harsh verbal discipline and physical punishment differed by child gender. Their analyses revealed a significant main effect for child gender for both harsh verbal discipline and physical punishment: boys received more verbal discipline and physical punishment than girls. Similarly, the Quebec survey of the parenting practices of mothers and fathers of children aged 0 to 17 years revealed that more boys than girls (45% and 41% respectively) had experienced physical punishment in the previous year (Clément et al., 2000).

Previous studies have found parental use of physical punishment to be associated with greater levels of child behavioural problems. For instance, Perron et al. (2014) examined self-reported use of spanking in a Canadian sample of parents who had children between the ages of 2 and 12. Children who were spanked were seen by their parents as exhibiting more problem behaviour than children who were not spanked. Similarly, MacKenzie, Nicklas, Brooks-Gunn, and Waldfogel (2011) found that mothers who reported that their children had more difficult

temperaments were more likely to use physical punishment. Parental use of physical punishment has also been associated with serious child transgressions and seriousness of misbehaviour as perceived by the parent is an important predictor of physical punishment use. For example, Holden et al.'s (1995) analysis of the determinants of parental use of physical punishment revealed that transgressions relating to aggression, violation of personal rights, and destructive behaviour had a higher likelihood of eliciting a spank than breaches of convention (e.g., misbehaviours relating to cleanliness, manners, or safety). Aggression was the child misbehaviour with the highest likelihood of eliciting a spank (Holden et al., 1995). In a survey of college students' attitudes toward spanking, Flynn (1998) found that participants believed physical punishment was most appropriate for behaviours such as hitting others (aggression) and stealing (violation of rights) but less appropriate for misbehaviours such as ignoring requests to clean one's room (breaches of convention). A study of the determinants of maternal use of physical punishment provides further support for the link between seriousness of misbehaviour and parental use of physical punishment. Ateah and Durrant (2005) found that mothers' ratings of the seriousness of the child's misbehaviour predicted their use of physical punishment. Mothers who perceived their child's misbehaviour as serious were three times as likely to use physical punishment as those who did not perceive their child's behaviour as serious.

The present study examined the contributions of child age, gender, and behaviour problems to predict coercive parenting.

Parent characteristics. Parent age, education level, engagement in religious gatherings, and participation in parent education program were of interest in the present study. Results of studies that have examined the relationship between parental use of physical punishment and parents' age are mixed and require further investigation. Previous studies have found high rates of physical punishment use by younger parents while others have found high rates of use by older

parents or no relationship between parent age and parental use of physical punishment. For example, Wissow (2001) examined the relationship between various parent characteristics and parents' reports of spanking. Data provided by a national sample of parents of children younger than three years of age were used. Wissow (2001) found that compared to older parents, younger parents were more likely to report they had spanked their child. Approximately 60% of parents younger than 25 years and 62% of parents between 25 and 29 years of age reported spanking compared to 54% of parents between the ages of 30 and 34 years and 44% of parents 35 years and older. In contrast, Eamon's (2001) examination of antecedents of maternal use of physical punishment did not provide support for the notion that younger parents are more likely to use physical punishment than older parents. Eamon (2001) used mother-child data based on a national sample of 4-9 year old children in two-parent families. In this study, maternal birth age was directly related to physical punishment; mothers who were older reported using physical punishment more frequently (Eamon, 2001). Finally, using nationally representative data from the 2000 National Longitudinal Survey of Youth (U.S.), Grogan-Kaylor and Otis (2007) found no significant association between parent age and reported use of spanking.

Research that has examined the relationship between parental level of education and parental use of physical punishment is inconclusive and requires further investigation. Whereas some studies have found high rates of physical punishment use among parents with lower levels of education, other studies have found high rates of use among more highly educated parents or no relationship between parental level of education and use of physical punishment. For example Tang (2006) examined factors associated with parental use of physical punishment in a cross-sectional sample of parents living with a child 18 years of age or younger. Parents with low educational attainment reported using physical punishment more frequently with their children. In contrast, Horn et al. (2004) examined the parenting behaviours of African-

American parents from various socio-economic backgrounds and found greater parental education to be significantly related to spanking severity. More educated parents reported using more severe spanking such as hitting a child, using an object to spank a child, and leaving a mark after spanking the child (Horn et al., 2004). Yet, Zolotor et al. (2011) found no association between parents' educational attainment and their use of physical punishment in a sample of mothers of children two years of age or younger.

Engagement in religious gatherings was also of interest in the present study. Previous findings suggest that parents are more likely to use physical punishment if they hold biblically conservative orientations. In general, these studies have found that Conservative Protestants are more likely to use physical punishment than parents with other religious affiliations. For example, Grogan-Kaylor and Otis (2007) examined various factors as predictors of parental use of physical punishment with a nationally representative sample of U.S. parents. Religion was a consistent predictor of parents' propensity to use physical punishment. Conservative Protestant parents were more likely to use physical punishment compared to Catholic parents. Similarly, Murray-Swank et al. (2006) found biblical conservatism to be associated with parental use of physical punishment. Murray-Swank et al. examined how parents' sanctification (perceptions of one's parenting role as having divine character and significance) interacted with their biblical conservatism in predicting parenting behaviours. Greater sanctification of parenting was related to increased use of physical punishment for conservative mothers and to decreased use of physical punishment for mothers with liberal biblical beliefs.

Finally, parent participation in parent education programs was also of interest in the present study. Various meta-analyses and individual studies have examined the effect of parent education programs on sets of parental strategies that include physical punishment or on global parenting styles. For example, Lundahl, Risser, and Lovejoy (2005) conducted a meta-analysis to

examine the impact of behavioural and non-behavioural parent training programs on the following parental strategies: praise and spanking. They evaluated 63 studies conducted between 1979 and 2003. To be coded as a behavioural parent training program, programs had to teach social contingencies (reinforcing prosocial behaviours, ignoring or punishing aversive behaviours etc). If a study included other interventions in addition to teaching social contingencies, it was still coded as a behavioural program. If the focus of training was on interventions other than social contingencies such as importance of healthy parent-child communication, respect for others, child-centred cognitions, and problem solving between parent and child, studies were considered nonbehavioural programs. Effects immediately following treatment were moderate ($d=0.47$). Similar improvements were found by De Graaf, Speetjens, Smit, de Wolff, and Tavecchio (2008a) in their meta-analysis of the effectiveness of Triple P Level 4 interventions on global parenting styles. They evaluated seventeen studies conducted between 1997 and 2008. Parenting styles of interest included laxness, over-reactivity, and verbosity. De Graaf et al. (2008a) found that these parenting styles decreased post-intervention and that results were maintained at follow-up.

Individual studies that have examined the effect of parent education interventions on parental behaviour have also focused on sets of parenting strategies or global parenting styles. For example, Sanders et al. (2008) examined the impact of delivering all five levels of the Positive Parenting Program (Triple P) on the parenting practices of parents living in communities assigned to intervention and comparison groups. In that study, appropriate and inappropriate practices were of interest. Appropriate practices included strategies such as ignoring misbehaviour and using consequences for misbehaviour. Inappropriate practices included smacking with a hand or object, shouting or becoming angry, and threatening to do something the child would not like. Outcomes were assessed through a computer-assisted telephone interview

of a random sample of households in each community pre-intervention and two years post-intervention. Sanders et al. found that the proportion of parents in intervention communities using inappropriate parenting strategies decreased pre to post-intervention.

Other studies have examined the effectiveness of parent education interventions on global parenting styles. Sanders, Prior, and Ralph (2009) examined the impact of Level 2 Triple P on the parenting style of parents assigned to an intervention (attended one seminar or all seminars in the series) and comparison group (a waitlist). Parenting styles of interest included laxness, over-reactivity, and verbosity. Data were collected from 109 participants. A reduction in the use of these parenting practices was noted post-intervention for parents in the intervention group. These studies suggest that participation in parent education programs can lead to reductions of inappropriate or coercive parenting strategies as reported by parents.

The present study examined the contributions of parent age, education level, engagement in religious gatherings, and participation in parent education program to predict coercive parenting.

Socio-contextual characteristics. Family size, family type, employment status, and income adequacy were the socio-contextual characteristics of interest for the present study. Previous studies suggest that the greater the number of children in the family, the more likely it is that parents will use physical punishment. For example, Alyahri and Goodman (2008) examined the power of various factors to predict parental use of harsh physical punishment defined as hitting children with objects, tying them up, pinching or biting them. Data provided by primary caregivers and teachers on 7-to-10-year-old children from a Yemeni city were used. Family size was significantly associated with physical punishment use: large family size was a strong predictor of harsh physical punishment. Similarly, using data collected from a sample of fifth grade Alexandria children and their mothers, Abolfotouh, El-Bourgy, Seif El Din, and

Mehanna (2009) found family size to be associated with parental use of physical punishment. Physical punishment was more likely to be used in families where there were more children living in the household than in families with fewer children (Abolfotouh et al., 2009). A more recent study also found evidence for the link between family size and parental use of physical punishment. González, Trujillo, and Pereda (2014) conducted a survey with 620 Colombian parents who had children between the ages of 5 and 8 years to assess prevalence of and examine various factors as predictors of physical punishment use. González et al. (2014) found that number of children living in the home was a significant predictor of parental use of physical punishment.

Various studies have found an association between single parent families and parental use of physical punishment. For example, Loeber et al. (2000) examined longitudinal trends in the relationship between various family interactions including physical punishment and risk factors such as family composition. Data from a U.S. longitudinal study of children aged 6 to 18 years and their respective primary caregivers were used. Over time and compared to participants from two-parent households, participants from single parent households reported higher levels of physical punishment use. Mahoney et al. (2000) also found a link between single parenthood and parental use of physical punishment with a sample of parents of 2-to-17-year-old children referred to a community mental health centre. Mahoney et al. (2000) examined whether associations between physical punishment and demographic characteristics previously found with samples from the general population would also be found with a sample of families of clinic-referred youth. Compared to mothers from two-parent households, mothers from single parent households were more likely to report using physical punishment in the previous year.

Research that has examined the relationship between employment status and parental

use of physical punishment is inconclusive and requires further investigation. Some studies suggest physical punishment is more frequent in families where parents are unemployed or have sporadic employment (Giles-Sims et al., 1995; Wolfner & Gelles, 1993). Other studies suggest physical punishment is more frequent in families where parents are employed (McKenzie et al., 2011). Yet other studies have found no relationship (Abolfotouh et al., 2009; Bordin et al., 2006) or an unclear one (Perron et al., 2014). For example, Tang (2006) conducted household interviews with 1,662 Chinese parents and examined rates and predictors of parental use of physical punishment. Employment was measured as employed (worked for pay during surveyed year) and unemployed (did not work for pay during surveyed year, homemakers, and retirees). Unemployed respondents reported more frequent use of physical punishment. In contrast, McKenzie et al. (2011) found employed parents to be more likely to use physical punishment. Using data from the Fragile Families and Child Well-Being Study in the U.S., McKenzie et al. examined the prevalence and determinants of spanking for children of African-American, Hispanic, and white non-Hispanic mothers. Employment was measured with a dummy variable assessing whether the mother had been employed in the last 2 weeks prior to the interview. Being employed was a significant predictor of spanking in Hispanic families.

Abolfotouh et al. (2009) found no relationship between employment status and mothers' use of physical punishment. They collected data from 400 mothers and their fifth grade children and examined various factors as predictors of mothers' use of physical punishment. Mothers' employment status was measured as working or non-working; it was not a significant predictor of physical punishment.

Finally, using data of 2,340 Canadian parents of children aged 2 to 12 years (IPS-C data), Perron et al. (2014) examined various factors as predictors of spanking. Employment was measured as working full-time, working part-time, not working for pay, and home-based paid

work. Parent employment status was significantly associated with spanking (Wald=12.04, $p < .007$). Parents who reported not working for pay were no more likely to spank than were parents who reported working full-time or working part-time.

The relationship between income and parental use of physical punishment is unclear. Although some studies have found high rates of physical punishment use for lower income parents, other studies have found no relationship between these two variables. For example, Bradley et al. (2001) examined the impact of poverty (based on poverty income guidelines issued by the Department of Health and Human Services in the U.S.) on parenting using 1994 data from the National Longitudinal Survey of Youth. Across all age levels and across all ethnic groups (European, Asian, African, and Hispanic Americans) poor parents were more likely to use physical punishment than were non-poor parents. Yet, Zolotor et al. (2011) did not find an association between household income and parental use of physical punishment. Using a sample of mothers of children two years of age and younger, Zolotor et al. (2011) examined whether maternal use of physical punishment was associated with various demographic factors. Household income was unrelated to spanking occurrence. In another study Wissow (2001) found the relationship was not linear. That is, parents with incomes between \$20,000 and \$60,000 were more likely to report spanking their children than were parents with incomes below \$20,000 or above \$60,000. All these studies measured income using various earning brackets. To date, only the study by Perron et al. (2014) discussed in the previous paragraph has examined whether the sufficiency of income to pay for essential expenses was associated with parental reports of spanking. Income inadequacy was measured by the question: "During the past 12 months, has there been a time when your household could not meet its essential expenses?" Income inadequacy was significantly related to spanking. Parents who reported there had been a time in the past 12 months when their income was insufficient to meet

essential expenses were more likely to spank than were parents who reported their income was adequate in meeting essential expenses. No study to date has examined sufficiency of income to pay for essential expenses as a predictor of coercive parenting more broadly.

This study examined the contributions of family size, family type, employment status, and income adequacy to predict coercive parenting.

Research on Importance of Child, Parent, and Socio-Contextual Characteristics

Belsky (1984) proposed that some determinants of effective parenting exert more influence than others. According to Belsky (1984), the most influential determinants of effective parenting are parent characteristics followed by contextual sources of support and child characteristics. Belsky (1984) proposed that parental factors are of primary importance because they influence parenting behaviours directly and they also influence the other domains (e.g., child and socio-contextual domains) theorized to influence parenting. For example, parental factors (e.g., education) may influence how parents see child transgressions (e.g., minor versus serious), type of work they do, and how much money they make.

Four studies have specifically examined the relative importance of child, parent, and socio-contextual factors as proposed by Belsky (1984). McKenry, Kotch, and Browne (1991) found support for Belsky's contention regarding the primary of parental factors. McKenry et al. examined predictors of dysfunctional parenting attitudes and predictors of risk for child abuse and neglect with a sample of adolescent mothers. Ordinary least squares regression was used to assess predictors of dysfunctional parenting attitudes (inappropriate developmental expectations, lack of empathic awareness of children's needs, strong belief in corporal punishment, reversing parent-child roles: children should comfort their parents) and logistic regression was used to assess predictors of risk for child abuse and neglect (the dependent measures also yielded dichotomous measures of risk). The forward selection procedure was used in the regressions as

one of the goals was to examine the order of importance of the child, parent, and socio-contextual factors of interest. For the measures of risk, only lack of empathy and strong belief in corporal punishment were predicted by the factors studied. Lack of empathy was predicted by low self-esteem (parental factor) and number of developmental delays (child factor) while belief in corporal punishment was predicted by negative life events in the past year and being unmarried (socio-contextual factors). These findings supported the importance of the domains according to Belsky's (1984) model. For the attitudinal outcomes, the parent characteristics of passive appraisal (ability to accept problematic issues minimizing stress), low self-esteem, and depression accounted for most of the variance.

Bogensneider, Small, and Tsay (1997) did not find support for Belsky's (1984) proposition that parental factors are the most important sources of influence followed by contextual factors and child factors. Bogensneider et al. examined the relative contribution of child, parent, and socio-contextual factors to perceived parenting competence with a sample of parents of adolescents. A series of regression models were generated and the order of entry of the predictor variables was predetermined based on Belsky's (1984) proposition regarding the influence of each of the sources of influence. The size of the regression coefficients was then examined to determine which predictors were the most important sources of influence. Child characteristics were found to be the most important sources of influence on mothers' and fathers' perceived parenting competence. For mothers, adolescent openness to socialization (assessed through parent self-reports of child initiated behaviours that indicated cooperation, affection, and receptivity to parents' attempts at socialization) was the strongest predictor of perceived parental competence followed by stress (socio-contextual) and parental sensitivity (parent characteristic). For fathers, adolescent openness to socialization (measured as noted above) was the strongest predictor followed by stress and marital or partner support.

Similarly, Van Bakel and Riksen-Walraven's (2002) results did not support Belsky's (1984) contention that parent characteristics have the most influence on parental behaviour. Van Bakel and Riksen-Walraven (2002) examined whether parent characteristics exert the most influence and child characteristics exert the least influence on quality of parental interactive behaviour with a sample of Dutch parents and their 15-month-old infants. Caregiver and children were visited in their homes, parents were asked to complete questionnaires, and were videotaped with their children during the performance of four interaction tasks (e.g., unlock a puzzle box, put a puppet together, do a jigsaw puzzle, read a set of picture books). The videotapes were rated for quality of parental interactive behaviour and an overall quality of parental interactive behaviour score was computed. A regression analysis was then used to identify the most influential characteristic within each of the domains of influence (child, parent, socio-contextual) on parental interactive behaviour. Infant social fearfulness, parental ego-resiliency and education, and partner support were strong predictors. Parent-infant dyads were then labelled strong or weak in a given domain (child, parent, socio-contextual) depending on whether they scored above or below the median on the most influential characteristics in that domain. For example, dyads were considered strong in the domain of parental characteristics if they scored above the median on ego-resiliency and education. Van Bakel and Riksen-Walraven (2002) hypothesized that if parent characteristics were most influential and child characteristics were least influential, quality of parental interactive behaviour would be lowest in parent-child dyads with a weakness in the parental domain and highest in dyads with a weakness in the child domain. However, an analysis of variance revealed no significant difference in the quality of parental interactive behaviour among the dyads.

McCurdy's (2005) analysis of how changes in stress and support (socio-contextual variables) affect maternal attitudes toward childrearing also did not support Belsky's (1984)

contention that parent characteristics exert the strongest influence on parenting behaviour. Using data from a study of mothers of newborns, McCurdy (2005) examined whether stress and support exerted more influence on punitive parenting attitudes than child or maternal characteristics. To do this, various models were constructed and evaluated through multiple regression. Model 1 consisted of maternal characteristics (e.g., education, age, employment), Model 2 consisted of maternal characteristics and child characteristics (e.g., low birth weight, prematurity, placement in intermediate or intensive care unit), and Model 3 included maternal, child, and socio-contextual characteristics of interest (e.g., stress, formal and informal support). The significance of the F change for Models 2 and 3 were then examined and revealed that stress and support produced a stronger effect on punitive parenting attitudes than maternal and child characteristics. Individually, maternal and child characteristics also did not exert significant effects on punitive parenting attitudes.

Most studies that have examined Belsky's (1984) contention that parent characteristics have the strongest influence on parental behaviour, have not found support for his assertion. However, to date, no one has examined Belsky's (1984) postulate with the specific factors proposed for this study namely: child (age, child gender, and child behavioural problems), parent (participation in parent education program, age, level of education, attendance at religious gatherings in the past month), and socio-contextual factors (family type, family size, employment status, and income adequacy). Further, participation in parent education programs (a variable that was examined as a predictor of parental behaviour in the present study) can have an impact on knowledge about children, perceptions and expectations of parents for themselves and their children, and parenting behaviours (Castro, 2002; Cooper, Chevrier, Schiffer, & Schuver, 2002). Knowledge gained through participation in parent education programs may influence parental behaviour regardless of the child's characteristics and the socio-contextual factors

present. For example, Triple P for parents of children with conduct problems has been found to be effective in decreasing parents' use of over-reactivity (authoritarian parenting), laxness (permissive parenting), and verbosity or long reprimands (Ireland, Sanders, & Markie-Dadds, 2003; Leung, Sanders, Leung, Mak & Lau, 2003). Participation in Triple P has also been linked to positive changes in parenting behaviours (increases in positive parenting skills, reductions in use of over-reactivity, laxness, verbosity) with parents experiencing stress due to marital conflict and socio-economic disadvantage (Bodemann, Cina, Ledermann, & Sanders, 2008; Zubrick et al., 2005).

Belsky's (1984) contention regarding the relative contribution of child, parent, and socio-contextual parental behaviour were further examined with the factors of interest in the present study.

Summary

Belsky's (1984) model proposes that parental behaviour is influenced by child, parent, and socio-contextual factors. In the last two decades, the model has stimulated much of the research on the determinants of parental behaviour. Various child, parent, and social-contextual factors have been associated with parental use of physical punishment. Physical punishment is most commonly used with boys, pre-schoolers, children with greater levels of child behavioural problems, and for certain types of misbehaviours such as self-endangerment, behaviours that parents perceive as challenging their authority, and behaviours that are perceived to be serious by the parent.

Parents who suffer from depression, react with anger to child misbehaviour, interpret child misbehaviour as intentional, approve of physical punishment to correct misbehaviour, have experienced physical punishment in childhood, and are affiliated with certain religious denominations (e.g., Conservative Protestantism) are more likely to use physical

punishment. Results of studies that have examined the relationship between physical punishment use and parents' age, gender, and educational level are mixed and require further investigation. The relationship between parental use of physical punishment and participation in parent education programs has not been examined. Meta-analyses and individual studies that have examined the impact of parent training programs on parental behaviour have not focused on parental use of physical punishment but on global parenting styles (e.g., laxness, over-reactivity, and verbosity) or on sets of parental strategies (e.g., coercive strategies) that include but are not limited to physical punishment.

Various socio-contextual factors have also been associated with parental use of physical punishment. The greater the number of children in the family, the more likely it is that parents will use physical punishment. Parents experiencing stress due to single parenthood, marital or relationship conflict, or parenting, are also more likely to use physical punishment. The relationship between parental use of physical punishment and other socio-contextual factors such as family housing type, economic stress, employment status, and income require further investigation. The majority of studies that have examined the relative contribution of child, parent, and socio-contextual factors to parenting behaviour have not found support for Belsky's (1984) contention that parent characteristics are the most influential determinants of parenting.

In the present study, the relative contributions of child, parent, and socio-contextual factors to coercive parenting were examined. The following factors were examined as predictors of coercive parenting: child age, child gender, and child behavioural problems; parent age, parent level of education, parent attendance at religious gatherings in the past month, parent participation in parent education program; family type, family size, employment status, and income adequacy. What follows is a review of Triple P, the parenting program of interest for

the proposed study, as well as the research pertaining to this program and the parenting responses of interest.

Chapter 3: Positive Parenting Program (Triple P) Review of the Literature

In this chapter, an overview of the Positive Parenting Program (Triple P), its theoretical basis, positive parenting principles, and scientific evidence base will be presented. Triple P programming available to Manitoba parents will be discussed and a detailed description of Level 2 Triple P will be provided. The available research on Level 2 Triple P and maternal use of physical punishment, non-physical forms of punishment, and non-punitive parenting strategies will also be presented. The purpose and hypotheses of the proposed study will then be introduced.

The Positive Parenting Program

Triple P was developed by Dr. Matt Sanders and colleagues from the Parent and Family Support Centre at the University of Queensland, Australia (Sanders & Glynn, 1981). Triple P is a social-learning, evidence-based parenting program that has been researched extensively (McConnell et al., 2010). The primary aim of the program is to improve parenting skills by helping parents develop effective, non-violent strategies for dealing with common child behaviour problems and developmental issues. The program targets five developmental periods: infancy, toddlers, pre-schoolers, primary school-aged children, and teenagers (Sanders, Markie-Dadds, & Turner, 2003). Triple P aims to (1) promote the development of nurturing environments for children, (2) enhance the development of young children and the resourcefulness and self-sufficiency of families, (3) prevent serious behavioural and emotional problems of children, and (4) reduce community incidence of child abuse (KidsMatter, n.d.; Sanders, 2008).

The Triple P³ model of parenting and family support includes five levels of

³ Information about the various Triple P levels discussed in this section comes from KidsMatter n.d.; Sanders, 2008;

intervention. This multi-level strategy allows for the intervention to be adapted based on parents' differing needs and preferences regarding type, intensity and mode of support required (Sanders, 2008; Sanders et al., 2003). Level 1 Triple P or Universal Triple P includes media-based parent information campaigns that aim to raise awareness of and encourage participation in parenting programs. Level 2 Triple P is designed for parents interested in parent education and for those who have minor concerns about their child's behaviour or development (e.g., toilet training, bed time problems). Level 2 intervention methods may involve brief face-to-face or telephone consultations (typically 1 to 2 sessions of up to 20 minutes each) and group sessions (1 to 3 sessions). Level 3 Triple P is for parents who require consultations or skills training for specific concerns about their child's behaviour or development (e.g., tantrums, fighting with siblings). Intervention methods include sessions (1 to 4 sessions) where parents are taught to manage child problem behaviour through advice, rehearsal, and self-evaluation. This is usually accomplished through group sessions, face-to-face, or telephone contact with a Triple P practitioner. Level 4 Triple P is for parents of children considered to have severe behaviour problems (e.g., oppositional defiant disorder, conduct disorder, attention-deficit/hyperactivity disorder). These parents are offered intensive training (8 to 10 sessions) that focuses on parent-child interaction and parenting skills that can be applied to target behaviours. Level 4 Triple P includes session activities and homework covering causes of children's behaviour as well as strategies for managing misbehaviour, promoting positive family relationships, and encouraging children's development. Level 4 sessions may be self-directed or involve telephone, face-to-face, or group sessions. Finally, Level 5 Triple P is for families where both child behaviour problems and family dysfunction (i.e., marital discord, stress, depression, at risk of maltreating their children) are of concern. Individually tailored sessions are available through group sessions,

telephone, or face-to-face contact. Sessions typically include teaching parenting skills, partner support skills, mood management strategies, and stress coping skills (KidsMatter n.d.; Sanders, 2008; Sanders et al., 2003; UNODC, 2009).

Triple P has been recommended by the World Health Organization (2009) and the National Institute for Health and Clinical Excellence (2009). The program is widely used throughout Australia and has been adopted by governments and health sector professionals in 21 other countries around the world: Austria, Belgium, Canada, China, Curaçao, Germany, Hong Kong, Iran, Ireland, Japan, Netherlands, New Zealand, Romania, Singapore, Scotland, Sweden, Switzerland, United Kingdom, the United States of America, the United Arab Emirates (Dubai), and Wales (Kinark Child and Family Services, n.d., UNODC, 2009). The program has also been translated into 18 languages including: Arabic, Chinese (Mandarin/Cantonese), Dutch, English, Flemish, French, German, Japanese, Papiamentu (Curaçao), Spanish, and Vietnamese (UNODC, 2009).

Theoretical basis of Triple P. Triple P content is derived from both social learning principles and research on behaviour analysis, child and family behaviour therapy, parenting, and developmental psychopathology (Sanders & Turner, 2005). Given that social learning models of parent-child interaction identify the reciprocal nature of these interactions and the learning mechanisms that contribute to the development and maintenance of coercive patterns of interaction (Patterson, 1982), Triple P encourages parents to use positive child management strategies instead of coercive practices that can have adverse effects on children (Sanders, 1999; Sanders et al., 2003; Sanders & Turner, 2005). Program content is also based on social information processing models that stress the importance of cognitions. Given that beliefs, expectancies, and inferences regarding events and behaviour affect parental decision-making, behaviour, and self-efficacy (Bandura, 1995), Triple P programming targets parental cognitions

by exploring with parents developmentally appropriate explanations for their child's behaviour (Sanders, 1999; Sanders et al., 2003; Sanders & Turner, 2005).

Triple P content also draws from research on applied behaviour analysis and child and family behaviour therapy. This research has identified strategies to manage and prevent problem behaviour, such as providing children with interesting and engaging activities, that are promoted in Triple P (Sanders, 1992; Sanders et al., 2003; Sanders & Turner, 2005). Program content is also based on developmental research on parenting and research from the field of developmental psychopathology (Sanders, 1999; Sanders et al., 2003; Sanders & Turner, 2005). Given the importance of parent-child relationships in the development of children's competencies and that failure to acquire competencies in early childhood is a risk factor for negative developmental outcomes (Hart & Risley, 1995), Triple P encourages parents to use child-initiated daily interactions to teach new behaviours, knowledge, skills, and abilities in a supportive manner (Sanders, 1999; Sanders et al., 2003; Sanders & Turner, 2005). The field of developmental psychopathology has identified risk and protective factors (e.g., parental distress and parents' use of positive parenting practices respectively) for child outcomes that are targeted in Triple P programming. For example, parents are given information regarding effective parenting strategies and are encouraged to use these strategies. By helping parents develop better parenting skills, the program also targets the parenting-related emotional distress (e.g., anger, high levels of stress, feelings of helplessness) experienced by some parents (Sanders, 1999; Sanders et al., 2003; Sanders & Turner, 2005).

Finally, Triple P reflects a population health approach that takes into account the ecological context of parenting. The program not only focuses on children, parents, and child-parent interactions, but it also targets the community at large. For example, Triple P's media campaigns have wide potential reach and are implemented to normalize parenting experiences by

highlighting the importance and difficulties associated with parenting (Sanders, 1999; Sanders et al., 2003; Sanders & Turner, 2005). By normalizing parenting experiences, media campaigns attempt to: (1) reduce the sense of isolation those experiencing difficulties with parenting may feel, (2) advertise available parent education support and, (3) encourage participation in Triple P or parent education in general (Sanders et al., 2003).

Triple P's positive parenting principles. Triple P program content draws on five principles of positive parenting. These principles aim to enhance protective factors (e.g., parental confidence, efficacy, and use of positive parenting practices) that are associated with favourable developmental outcomes in children and reduce risk factors (e.g., behavioural problems in children, parents' use of coercive parenting practices, and parental distress) associated with poor developmental outcomes (Sanders, 2008; Sanders et al., 2003; Triple P International Pty, 2010). The five core positive parenting principles are: (1) Ensuring a safe and engaging environment, (2) Creating a positive learning environment, (3) Using assertive discipline, (4) Having realistic expectations, and (5) Promoting parental self-care (Sanders, 2008; Sanders et al., 2003).

Parents who receive Triple P education are encouraged to provide a safe and engaging environment for their children as well as adequate supervision and monitoring. A safe environment allows children to explore and play while promoting healthy development and minimizing the occurrence of accidents in the home (Sanders, 2008; Sanders et al., 2003). Parents are also given information regarding their role as their children's first teacher and are taught to respond to child-initiated interactions so as to help children learn to solve problems on their own. Child-initiated interactions may include children's requests for attention, help, advice, or information (Sanders, 2008; Sanders et al., 2003).

Triple P also introduces parents to a wide array of parenting skills designed to:

(1) enhance the parent-child relationship, (2) encourage desirable behaviour, (3) teach children new skills and behaviours, and (4) manage misbehaviour. To this end, Triple P promotes 17 core parenting skills. For example, to enhance the parent-child relationship, parents are encouraged to spend brief quality time with their children, speak to their children, and show affection (Sanders, Markie-Dadds, & Turner, 2005). To encourage desirable behaviour, parents are encouraged to use praise, positive attention, and to provide engaging activities for their children (Sanders et al., 2005). To teach new skills and behaviours, parents are encouraged to model desired behaviour, use behaviour charts that allow children to earn points or stickers on the chart for desired behaviour, use incidental teaching or teach the child something new when the child asks for information, and use ask-say-do. Ask-say-do involves teaching a task by breaking it down into steps and asking the child about the first step, telling the child what the first step is if the child does not know, and helping them perform the task (Sanders et al., 2005). Finally, to manage misbehaviour, Triple P encourages parents to establish clear ground rules, give clear and calm instructions, and use logical consequences, time-out, planned ignoring, directed discussion, and quiet time. Using directed discussion involves gaining the child's attention, stating the problem, explaining why it is a problem, discussing correct behaviour, and getting the child to practice the desired behaviour. Quiet time involves removing the child from the activity in which the misbehaviour occurred, having them sit quietly for a short time in the same environment where the misbehaviour occurred, and allowing them to rejoin the activity once the child has remained quiet for the set time (Sanders et al., 2005).

Other parenting skills caregivers are exposed to through Triple P include observation skills such as monitoring children's behaviour; anticipation and planning skills such as discussing ground rules for specific situations; self-regulation skills such as self-evaluation of strengths and weaknesses; mood management and coping skills such as relaxing and managing stress; and

partner support and communication skills such as supporting each other when problem behaviour occurs and giving as well as receiving constructive feedback (Sanders 2008; Sanders et al., 2003). Regardless of the goal of the parenting skill being taught (e.g., enhance the parent-child relationship, manage misbehaviour), Triple P emphasizes and encourages parents to use these skills and thereby use assertive discipline instead of punishments such as threatening, shouting, or physical punishment. To ensure generalization of skills taught, parents are encouraged to use the newly learned skills in settings and parenting situations other than those that occur in the home (Sanders, 2008; Sanders et al., 2003).

Parenting beliefs, expectations regarding children's capabilities, and assumptions regarding causes for child behaviour are also targeted in Triple P programming. These beliefs, assumptions, and expectations are explored and challenged by providing parents with information regarding child development and effective child rearing practices. Parents are also assisted in identifying goals that are developmentally appropriate for their children and are encouraged to identify alternative, developmentally appropriate explanations for their children's behaviour (Sanders, 2008; Sanders et al., 2003).

Finally, Triple P targets parents' well-being. That is, parents are encouraged to look after themselves, take time to relax, and make time to engage in activities they enjoy. Triple P also targets parental distress including stress, anger, anxiety, and depression by teaching parents practical parenting skills that any caregiver can apply and by helping them acquire coping strategies to deal with difficult emotions (Sanders, 2008; Sanders et al., 2003). More intensive levels of Triple P focus on cognitive behaviour therapy to challenge dysfunctional cognitions, anger management, improving couples' communication, and teaching coping skills to deal with problematic emotions (Sanders et al., 2003).

Empirical evidence supporting the efficacy of Triple P. Triple P has undergone

rigorous scientific evaluation. Evidence of the program's efficacy comes from studies that have been conducted over the past 25 years. Triple P's evidence base includes: 5 meta-analyses, 10 independent randomized control trials, 47 RCTs, 28 quasi-experimental studies, and 11 studies that have used a pre-post design (McConnell et al., 2010; UNODC, 2009). The meta-analytic studies of Triple P outcome data have produced meaningful but small to moderate effect sizes on child behaviour, parenting, and parent well-being (De Graaf, Speetjens, Smit, de Wolf, & Tavecchio, 2008a; De Graaf, Speetjens, Smit, de Wolf, & Tavecchio, 2008b; Nowak & Heinrichs, 2008; Sanders et al., 2014; Thomas & Zimmer-Gemback, 2007). The larger effect sizes have been found for targeted Triple P (Levels 4 and 5) or the more distressed families.

Across studies, whether RCTs or other, a consistent finding is that the program causes positive changes in child, parent, and service provider outcomes. Positive service provider outcomes that have been found include: credibility gains, improved relationships with other service providers, and increases in confidence to deliver evidence-based interventions (McConnell et al., 2010). Child outcomes achieved in Triple P studies include increases in self-esteem and reductions in child problem behaviours (e.g., emotional problems, behavioural problems, and psychosocial difficulties). Positive parental outcomes that have been reported include: reductions in use of coercion, emotional distress (e.g., stress, anger, and depression), and marital conflict over child rearing issues as well as increases in use of positive parenting practices, parental confidence, self-efficacy, and work satisfaction. Other outcomes attained in Triple P studies include improved parent-child relationship, fewer cases of child maltreatment, fewer cases in which children have to be placed in care due to maltreatment, and lower rates of hospitalization and fewer emergency room visits due to child maltreatment (Bodenmann, Cina, Ledermann, & Sanders, 2008; Bor, Sanders, & Markie-Dadds, 2002; Brown et al., 2014; Cann, Rogers, & Worley, 2003; Crisante & Ng, 2003; Connell, Sanders, & Markie-Dadds, 1997;

Furlong et al., 2013; Hahlweg, Heinrichs, Kuschel, & Feldmann, 2008; Hoath & Sanders, 2002; Ireland, Sanders, & Markie-Dadds, 2003; Leung, Sanders, Ip, & Lau, 2006; Martin & Sanders, 2003; Markie-Dadds & Sanders, 2006; Matsumoto, Sofronoff, & Sanders, 2007; McConnell et al., 2010; McCormick et al., 2014; Mejia, Calam, & Sanders, 2015; Morawska & Sanders, 2006; Morawska & Sanders, 2009; Plant & Sanders, 2007; Prinz et al., 2009; Roberts, Mazzucchelli, Studman, & Sanders, 2006; Sanders, Bor, & Morawska, 2007; Sanders, Markie-Dadds, Tully, & Bor, 2000; Sanders & McFarland, 2000; Sanders, Pidgeon, Gravestock, Connors, Brown, & Young, 2004; Sanders et al., 2014; Sumargi, Sofronoff, & Morawska, 2014; UNODC, 2009; Zubrick et al., 2005). These positive outcomes have been found across family types including single parent, two-parent, and step families as well as among families where there is parental stress, depression, marital conflict, or a child with an intellectual disability (Sanders et al., 2003).

Although these findings are promising, these results come from studies that have focused on targeted Triple P (Levels 4 and 5). In fact, most studies that have examined the efficacy of Triple P have focused on Levels 4 and 5 (Bor et al., 2002; de Graaf, Speetjens, Smit, de Wolff & Tavecchio, 2008a; Gallart & Matthey, 2005; Hoath & Sanders, 2002; Leung et al., 2003; Plant & Sanders, 2007; Roberts et al., 2006; Sanders et al., 2007; Sanders et al., 2000; Sanders et al., 2004; Sofronoff, Jahnel, & Sanders 2011; Turner, Richards & Sanders 2007; Whittingham, Sofronoff, Sheffield, & Sanders, 2009; Zubrick et al., 2005). A small number of studies have focused on Level 3 or Primary Care Triple P (Boyle et al. 2010; Crisante, 2003; de Graaf, Onrust, Haverman, & Janssens, 2009; McConell et al., 2010; Turner & Sanders, 2006). Two studies have examined the behavioural problems of children and the parenting practices of caregivers residing in communities that have access to all five levels of Triple P (Sanders et al., 2008; Sanders & Woolley, 2004). One study has examined the impact of Level 1 Triple P on child behaviour problems in the classroom (McTaggart & Sanders, 2003). Similarly, Level 2 Triple P has

received little research attention (McConnell et al., 2010; Sanders et al., 2009). The impact of Level 2 Triple P on maternal use of physical punishment, non-physical forms of punishment, and non-punitive parenting strategies is of interest for the proposed study. What follows is a review of Triple P services available to Manitoba parents including Level 2 Triple P and the available research on Level 2 Triple P and the outcomes of interest for the proposed study.

Criticism of Triple P. Triple P and other evidence-based programs such as the Incredible Years Program (Webster-Stratton, 1998), Parent-Child Interaction Therapy (Eyberg, 1988), and Parent-Management Training Oregon (Patterson, 2005) recommend the judicious use of time-out in combination with other positive parenting strategies. However, some practitioners and program developers argue against the use of time-out. They suggest that: (1) time-out does not work for all children, (2) children may become more defiant after its use, (3) there may be negative side effects related to its use, (4) the strategy may be seen as an authoritarian approach that labels children and gets them to focus solely on their misbehaviour, and that (5) time-out may lead children to: repress their feelings, have difficulty being aware of emotions, and learn that negative emotions are not acceptable (Clewett, 1988; Gartrell, 2001, 2002; Schreiber, 1999).

In view of the criticisms raised against the use of time-out, Morawska and Sanders (2011) noted the guidelines for the effective use of this strategy that Triple P endorses and reviewed the evidence related to the criticisms noted above. Triple P recommends time-out be used in combination with other strategies (not as a stand alone strategy) and in the context of a positive parent-child relationship. Triple P also encourages parents to monitor children in time-out and to make the time-out environment less interesting and positive than the time-in environment. Finally, Triple P encourages parents to create an interesting and loving environment (one that provides opportunities for children to explore, discover, experiment, and develop their skills) so there is less need for the use of time-out.

In view of the criticisms of the procedure, Morawska and Sanders (2011) reviewed the evidence related to the concerns noted above and conclude that: (1) time-out used in combination with other strategies is effective across age groups: toddlers (Larzelere, Schneider, Larson, & Pike, 1996; Morawska & Sanders, 2006), preschoolers (Sanders, Markie-Dadds, Tully, & Bor, 2000) and school-aged children (Webster-Stratton, 1993), (2) If children are let out of time out contingent on them being calm, that no additional disruptive behaviour ensues (Hobbs and Forehand, 1975), and that (3) there is no evidence that using time-out in combination with other strategies is damaging but prevents further problems (Kazdin, 2005; Zubrick et al., 2005).

In response to the concern that time-out may be seen as an authoritarian approach that labels children and gets them to focus on their misbehaviour, Morawska and Sanders (2011) note that Triple P encourages parents to use the recommended procedure for time-out which does not include labeling the child or asking the child to think about their behaviour. Further, research does not support the claim that children exposed to time-out repress their feelings or have difficulty being aware of feelings (Morawska & Sanders, 2011). Morawska and Sanders also note that correct implementation of time-out does not teach children that negative emotions are unacceptable. The authors highlight that time-out: (1) is designed as a consequence for inappropriate behaviours such as aggression, tantrums, and noncompliance, (2) is intended to help children self-regulate their emotions, and (3) can be misused in the absence of appropriate training to use it effectively and in conjunction with other parenting strategies.

Triple P programming in Manitoba. The first Triple P training in Canada took place on Vancouver Island in 2004. Shortly after, southern Ontario adopted and implemented Triple P. In Manitoba, province-wide Triple P training began in 2005 and was completed by April 2008 (Healthy Child Manitoba Office, 2005; Unger, Campbell, & Feldgaier, 2009). The program has been accessible to parents in this province since 2006 through agencies and organizations with

trained staff who are able to offer Triple P to their clients (Healthy Child Manitoba, 2015).

In Manitoba, Triple P's primary focus is on families with children under the age of six (Unger, Campbell, & Feldgaier, 2009). The government of Manitoba, multi-sectoral community agencies, and Manitoba universities (graduate students) have been involved in the coordination, implementation, and evaluation of the program. Triple P training and accreditation continues to be offered in the province. During the 2014-2015 year, 23 Triple P training courses (encompassing the various levels of Triple P) were offered across Manitoba (Winnipeg Brandon, The Pas, and Thompson). As of 2014-2015, there were more than 2,500 Triple P accredited practitioners in Manitoba (Healthy Child Manitoba, 2015). These professionals are from over 300 community agencies, government departments, school divisions, Regional Health Authorities (RHAs), child care centres, and other organizations from various sectors such as Health, Social/Community Services, Education, Early Child Care, Child Welfare, Mental Health, and Allied Health sectors (Healthy Child Manitoba, 2015; Unger, Campbell, & Feldgaier, 2009). In 2010, Triple P training was offered to Francophone practitioners for the first time in Winnipeg (Healthy Child Manitoba, 2015). Since then, trainings have been offered regularly in French and as of 2014-2015, there were more than 130 Francophone practitioners in Manitoba. It should also be noted that Triple P training has also included training Early Childhood Education (ECE) program students from the University College of the North in The Pas and Thompson. Training of ECE students began in 2011 and has continued since⁴ (Healthy Child Manitoba, 2015).

Triple P services available to parents in Manitoba include the Manitoba Parent Line, Teen Triple P and variants of Levels 1 to 5⁵. The Manitoba Parent Line was first introduced

⁴ ECE students have been trained in Level 3 Primary Care and Level 3 Primary Care Stepping Stones.

⁵ All information about Triple P services offered in Manitoba was taken from the Triple P website for Manitoba: www.manitobatriplep.ca and the Healthy Child Annual Report 2014-2015: <http://www.gov.mb.ca/healthychild/about/annual.html>

in 2011 as the Triple P Parent Line. Through this phone line, Triple P counsellors: (1) offer free, confidential advice on parenting concerns based on the Triple P parenting program, (2) provide callers the opportunity to participate in Triple P adapted phone programs, and, (3) provide referrals to face-to-face Triple P programs in the community (Healthy Child Manitoba, 2015). In February 2015, the line was renamed the Manitoba Parent Line as the line not only provides Triple P counselling but also provides general consultations and assists callers in finding relevant parenting services in their communities (Healthy Child Manitoba, 2015). This year (2016), Teen Triple P will be offered to parents of teenagers facing parenting challenges. In 2014 and 2015, staff from various community agencies and school divisions were trained in Teen Triple P to better support parents of teenagers (Healthy Child Manitoba, 2015).

Variants of Triple P Levels 1 to 5 are offered through government departments (e.g., Manitoba Justice offers Triple P programs to parents in all correctional facilities), community agencies (e.g., St. Amant Centre, Family Violence crisis centres), school divisions (e.g., St. James School Division), RHAs (e.g., Winnipeg Regional Health Authority), child care centres, and other organizations. These include targeted Triple P services such as Primary Care Triple P (level 3), Primary Care Stepping Stones Triple P (level 3), Group Triple P (level 4), Standard Triple P (level 4), Standard Stepping Stones Triple P (level 4), Enhanced Triple P (level 5), Pathways Triple P (level 5), and less intensive levels such as Seminar Triple P (level 2). Primary Care or Level 3 Triple P offers brief and private sessions with a Triple P practitioner for everyday parenting concerns. Primary Care Stepping Stones Triple P is a variant of Primary Care Triple P designed for families of preschool children with disabilities. These children may also have or may be at risk of developing emotional or behavioural problems. Group Triple P (level 4) involves group sessions delivered by a Triple P practitioner who is also available to provide backup phone support as parents start implementing newly learned skills. Standard Triple P (level

4) involves 10 private sessions with a Triple P practitioner where specific parenting goals are identified, new parenting strategies are learned, and examples of positive parenting are reviewed. Standard Stepping Stones Triple P is a variant of Standard Triple P specifically designed for families of children with disabilities. Enhanced Triple P (level 5) is offered to families where both child behaviour problems and family dysfunction are present. Parents have the option of taking one to three (or all three) mini courses with a Triple P practitioner in the privacy of their home. Finally, Pathways Triple P (level 5) is available for families of children who have been abused or neglected. Through Pathways Triple P, parents receive support and information on how to manage their emotions, control their anger, and revise the way they interpret their child's behaviour (Healthy Child Manitoba, n.d., Sanders, 2008).

Level 2 Triple P. Seminar or Level 2 Triple P in Manitoba consists of a series of three 90 minute public education seminars on positive parenting (60 minute seminars and 30 minutes question and answer period). Seminars are offered in the community and are designed for large groups of parents (20 parents or more) who are interested in parenting education or who have minor concerns regarding their child's behaviour or development. Level 2 Triple P aims to increase parental competence in raising children by: (1) enhancing parents' communication about parenting issues, (2) promoting and increasing parents' use of positive parenting principles and techniques in managing child behaviour and developmental issues, (3) reducing parents' use of coercive and punitive methods of disciplining children, and (4) reducing stress related to parenting (Sanders & Turner, 2005). Facilitators provide informal presentations or generate group discussions and provide parents with support to address the parenting issues of concern (Sanders & Turner, 2005).

Seminar 1. In this seminar, also called *The Power of Positive Parenting*, parents are introduced to positive parenting and the five principles that form the basis of the

program. Positive parenting refers to promoting children's development by fostering nurturing relationships and using non-hurtful, positive, strategies to deal with children's behaviour and emotions (Sanders & Turner, 2005). The principles of positive parenting that form the basis of the program are discussed as well as strategies that can be implemented to ensure each principle is put into practice. For example, when the first principle of positive parenting is introduced: creating a safe and engaging environment, strategies that are discussed include: monitoring children, developing predictable daily routines, and ensuring the child has plenty of interesting things to do (Sanders, Markie-Dadds, & Turner, 2005; Sanders & Turner, 2005). Creating a positive learning environment is the second principle of positive parenting that is discussed during this seminar. Strategies that are suggested to create a positive learning environment for children include: making time for your child, speaking to your child about one of their activities or interests, and giving affection, attention, and praise (Sanders et al., 2005; Sanders & Turner, 2005). When the third principle of positive parenting is introduced: using assertive discipline, a definition for this type of discipline is presented as well as strategies that can be used. Assertive discipline involves using fair, consistent, and predictable consequences that fit the situation while remaining calm and teaching children desirable behaviour (Sanders & Turner, 2005). Examples of strategies that are recommended include: preparing for situations in advance such as ensuring children have something to do in situations where there may not be anything for them to do, explaining and discussing rules, using praise to encourage desirable behaviour, supervising children so misbehaviour can be dealt with right away, and using planned ignoring, time-out, and quiet-time (Sanders et al., 2005; Sanders & Turner, 2005).

Having realistic expectations of the child of interest and of oneself is the fourth principle of positive parenting that is discussed during the first seminar. Parents are reminded that positive parenting strategies work best when they have realistic expectations. Parents are also encouraged

to check if their expectations are realistic by considering if: (1) the rule is necessary, (2) the child can understand the rule or is old enough to do as required, (3) other parents of children of the same age have similar expectations, and if (4) the expectations they have of themselves are reasonable (Sanders et al., 2005; Sanders & Turner, 2005). Finally, when discussing the last principle of positive parenting, taking care of oneself as a parent, the importance of work and family balance, dealing with negative thinking, and getting parenting support are highlighted. Suggested strategies for achieving work-family balance include: organizing before and after school care if needed, being prepared to reduce work hours, and teaching children how to get ready for the day (Sanders et al., 2005; Sanders & Turner, 2005). Parents are also encouraged to identify negative thinking or explanations for the child's behaviour and to counter these with rational thoughts. Negative thoughts focus on the child and are global while helpful thoughts focus on the behaviour (not the child) and look for various explanations for a situation. For example, if a parent begins to think that a child is misbehaving because the child is "bad" and is purposefully trying to upset him/her, the parent is encouraged to replace the negative thought with a positive one such as attributing the misbehaviour to boredom (Sanders & Turner, 2005). Finally, parents are encouraged to share parenting responsibilities with their partners or other carers as a way to take care of themselves (Sanders & Turner, 2005).

Seminar 2. In this seminar, *Building Confident, Competent Children*, parents are introduced to the six building blocks for raising confident and competent children. These social and emotional skills that children need to do well in life are: showing respect, being considerate, having good communication and social skills, having healthy self-esteem, and becoming independent and good problem-solvers (Sanders et al., 2005; Sanders & Turner, 2005). As each of these skills is introduced, strategies that parents can use to help children acquire these skills are presented. To help children learn to be respectful towards others, parents

are encouraged to teach children to be polite (when speaking, making requests, answering questions) and to cooperate and follow rules. Some of the strategies that are discussed to encourage children to be polite include: modeling speaking and treating others in a polite manner, teaching children to ask politely for things, and praising them for being polite (Sanders et al., 2005; Sanders & Turner, 2005). Strategies that are suggested to encourage cooperation and following rules include using praise and telling children about consequences for doing or not doing as asked (Sanders et al., 2005; Sanders & Turner, 2005). The importance of teaching children to be considerate in order to establish positive relationships with others is also highlighted in this seminar. Strategies that are suggested for teaching children to be considerate include: modeling being considerate, using praise and consequences for considerate and inconsiderate behaviour respectively, asking the child how things make them feel or would make others feel, and avoiding being critical of others (Sanders et al., 2005; Sanders & Turner, 2005).

The importance of helping children acquire good communication and social skills and develop healthy self-esteem is also highlighted during this seminar. Parents are encouraged to help their children make friends by discussing what it means to be a good friend, how to make new friends, how to foster good friendships with others, and by showing an interest in their child's friends. Strategies that are suggested to help children develop healthy self-esteem include: giving children lots of affection (children feel good when they know they are loved), encouraging children to set goals (self-confidence grows when children set goals and achieve them), involving children in family decision-making (e.g., house rules), letting children make decisions (e.g., what games they would like to play), helping children see their accomplishments, strengths and weaknesses accurately, and encouraging children to be involved in discussions so they can express their ideas and their opinions can be valued (Sanders et al., 2005; Sanders &

Turner, 2005).

Helping children develop good problem solving-skills and become independent are the last two life skills discussed during this seminar. Parents are encouraged to help children learn to solve problems by: setting a good example and discussing how problems can be broken down into smaller parts that can be tackled one at a time, involving children in family problem-solving, and encouraging children to try to solve their own problems (Sanders et al., 2005; Sanders & Turner, 2005). To help children become more independent, parents are encouraged to help them do things for themselves by establishing routines (e.g., getting ready for school, after school routines). Strategies discussed for establishing routines include: discussing what is expected of the child, having the same set of activities everyday so it is easy for the child to remember what they are to do, and rewarding the child for completing each task or activity (Sanders et al., 2005; Sanders & Turner, 2005).

Seminar 3. During the last seminar, *Raising Resilient Children*, emotional resilience, its six building blocks, and strategies to promote these skills are discussed. Emotional resilience is defined for parents as the ability to deal with emotions and cope with every day stresses and major life events (Sanders & Turner, 2005). It involves six building blocks: (1) recognizing, understanding, and accepting feelings, (2) expressing feelings appropriately, (3) thinking positively about themselves and the world, (4) developing coping skills, (5) dealing with negative feelings, and (6) coping with stressful life events (Sanders & Turner, 2005). Suggested strategies to help children recognize, understand, and accept feelings in themselves and others include: speaking to children about emotions, how to recognize emotions, and how to deal with different emotions as well as letting children know it is acceptable to have different feelings and to express those feelings (Sanders et al., 2005; Sanders & Turner, 2005). The importance of helping children learn about appropriate and inappropriate ways of expressing emotion (e.g., what words and

actions are appropriate, when to express their feelings) is also highlighted during this seminar. To help children express their feelings appropriately, parents are encouraged to: (1) help children talk about their feelings by asking how they feel about events that have happened to them and acknowledging their feelings, (2) reward children for expressing their feelings and managing upsetting situations (e.g., being teased) appropriately, and (3) deal with inappropriate expression of feelings (e.g., when upset feelings turn into hurtful or disrespectful behaviour) by using consistent consequences and modeling better ways of dealing with upset feelings such as keeping calm while dealing with the situation (Sanders et al., 2005; Sanders & Turner, 2005).

Optimistic thinking and having coping skills to deal with negative emotions are skills that are important for developing emotional resilience (Sanders & Turner, 2005). Consequently, parents are also encouraged to help children develop positive ways of thinking about themselves and the world by encouraging optimistic thinking (e.g., look for the positives), curiosity (to take interest in the world around them), and contentment (Sanders et al., 2005; Sanders & Turner, 2005). Some suggestions that are discussed during the seminar for encouraging optimism include: modeling being optimistic, encouraging children to get involved in activities where they will experience success, and highlighting the “good side” of events (Sanders et al., 2005; Sanders & Turner, 2005). Suggestions for encouraging curiosity include: allowing exploration, asking questions about children’s activities and interests, and teaching children how to find information by using maps or books (Sanders et al., 2005; Sanders & Turner, 2005). Finally, contentment can involve appreciation of what children have and acceptance of things that cannot be changed. Strategies discussed during the seminar to encourage contentment include: modeling being appreciative and grateful, discussing of things that cannot be changed, and encouraging acceptance of what children do have (Sanders & Turner, 2005).

Coping skills such as problem-solving, positive self-talk, relaxation, and asking

for help and support are skills children can learn to help them deal with negative emotions (Sanders & Turner, 2005). Suggested strategies for helping children develop problem-solving skills include: involving children in family problem-solving discussions, playing games that promote problem-solving, and encouraging children to try solving their own problems (Sanders et al., 2005; Sanders & Turner, 2005). To encourage positive self-talk, parents are encouraged to explain to children how thinking in different ways can affect how you feel, point out helpful and unhelpful ways of thinking about a situation, and modeling positive self-talk (Sanders et al., 2005; Sanders & Turner, 2005). Suggested strategies to help children learn to relax include: modeling ways of dealing with stress and helping children find ways to relax that work for them such as taking deep breaths or listening to calming music. Finally, to encourage children to ask for help or support, parents are encouraged to discuss with children how helpful it is to speak to someone you trust about your problems and ask for their help or support (Sanders et al., 2005; Sanders & Turner, 2005).

The last two building blocks of emotional resilience discussed during this seminar are: dealing with negative emotions and managing stressful life events. Strategies for helping children learn to deal with negative emotions include: modeling how to cope with negative emotions, teaching children coping strategies such as positive self-talk, distraction, and relaxation, and staying calm when children experience a negative emotion while prompting them to use their coping skills (Sanders et al., 2005; Sanders & Turner, 2005). Tips given during the seminar for helping children cope with stressful life events include: reassuring the child about their safety, asking the child to explain what happened and why they are upset, allowing the child to be upset, saying something positive about the situation, encouraging children to do something that will cheer them up, asking children to use their coping skills, and seeking professional help if needed (Sanders & Turner, 2005).

At the end of each seminar (and sometimes at the beginning of the seminar depending on Triple P practitioner), parenting tip sheets that summarize the information and strategies discussed in each seminar are handed out. At the end of each seminar, 30 minutes are allotted to allow parents to ask questions about specific issues or concerns regarding their own child. As some parents may not raise their concerns in front of a group, Triple P practitioners are available after each seminar for individual inquiries. Depending on the nature of the problem, parents may be referred to more intensive levels of the program, a brief consultation may take place when the parent approaches the Triple P practitioner after the seminar, or a consultation may be scheduled for a later time. During these brief individual consultations, Triple P practitioners help parents: (1) identify causes of problem behaviour and strategies they currently use, (2) set goals regarding changes they would like to make to their parenting, (3) and develop a parenting plan they can implement for the target behaviour (Sanders & Turner, 2005). During the consultations, Triple P practitioners may use Triple P resources such as the Positive Parenting booklet and Triple P tip sheets and videos to convey information regarding child management strategies and children's behaviour and development (Sanders & Turner, 2005). A copy of the Positive Parenting booklet and relevant tip sheet is often given to the parent and video segments may be used to demonstrate key strategies. The Positive Parenting booklet provides advice on using positive parenting strategies to deal with problem behaviour (Sanders & Turner, 2005). Triple P tip sheets provide suggestions for managing and preventing problem behaviour and developmental issues. There are 44 tip sheets and these focus on issues regarding: (1) parenting (becoming a parent, preparing your child for a new baby, balancing work and family, feeling depressed after birth of your baby, home safety, supporting your partner, coping with stress), (2) infants (promoting development, crying, sleep patterns, separation anxiety), (3) toddlers (bedtime problems, disobedience, hurting others, independent eating, language, sharing, tantrums, toilet training, wandering, whining), (4)

preschoolers (disobedience, fighting and aggression, going shopping, having visitors, interrupting, mealtime problems, nightmares and night terrors, separation problems, tidying up, traveling in the car), and (5) primary schoolers (attention deficit hyperactivity disorder, bedwetting, behaviour at school, being bullied, creativity, chores, fears, homework, lying, self-esteem, sport, swearing, stealing).

Finally, Triple P practitioners may use Triple P videos to explain and demonstrate parenting advice and strategies. There are eleven videos: (1) an introductory video where causes of problem behaviour and strategies for managing and preventing developmental issues and problem behaviours are highlighted, (2) three age-specific videos (infants and toddlers, preschoolers, and primary schoolers) that provide age-appropriate child development information and strategies for dealing with difficulties typical of that age group, and (3) seven videos on single topics (self-esteem, disobedience, tidying up, encouraging creativity, children and sport, coping with stress, and supporting your partner).⁶ If the need for a referral has become evident throughout the consultation (e.g., multiple behaviour problems, family dysfunction), the Triple P practitioner discusses the option of participating in a more intensive level of Triple P or in another program. Where possible, Triple P practitioners arrange for a follow-up call to check on the family's progress and ensure parents know they can contact them again for further help or information (Sanders & Turner, 2005).

Participation in Level 2 Triple P in Manitoba and its effect on maternal use of physical punishment, non-physical forms of punishment, and non-punitive parenting strategies is of interest for the proposed study. The available research on Level 2 Triple P and the outcomes

⁶ It should be noted that there are also Triple P resources for parents of teenagers: The Positive Parenting for Parents of Teenagers booklet provides suggestions for dealing with teenagers' problem behaviour. Twelve tip sheets have been designed to address various teen issues (i.e., eating habits, alcohol, smoking and drugs, money and work, sexual behaviour and dating, truancy, depression). Finally, the Every Parent's Guide to Teenagers video gives suggestions on how to build a positive relationship with your teenager, parenting strategies that work, and ways to prevent and manage problem behaviour.

of interest will be reviewed in the sections that follow.

Research on Level 2 Triple P and Outcomes of Interest

Outcomes of interest for the proposed study are: maternal use of physical punishment, non-physical forms of punishment, and non-punitive parenting strategies.

Physical punishment. The relationship between Level 2 Triple P and parental use of physical punishment has not been examined (Voisine & Baker, 2012). Thus, it is not known whether participating in Triple P changes parental use of physical punishment. Findings from national and large scale surveys suggest that Canadian parents continue to use physical punishment (LaRoche et al., 2013; Canadian Press and Leger Marketing, 2002; Oldershaw, 2002). Similarly, findings from studies conducted in various provinces underscore the continued use of physical punishment by Canadian parents. For example, a provincial survey of Québec parents of children aged 6 months to 17 years revealed that in the past year, 35% of children had received physical punishment (e.g., slaps on the buttocks, hand, arms or legs) and 11% experienced physical punishment three or more times a year (Institut de la Statistique du Québec, 2013). In Manitoba, most parents also report using physical punishment. Ateah and Durrant (2005) found that 59% of a sample of Manitoba mothers of pre-schoolers had physically punished their children in the previous two weeks. Further, national data on the incidence of child abuse and neglect have revealed that the majority of physical abuse investigations are cases of physical punishment. For instance, the first national study of the incidence of child maltreatment reported to and investigated by child welfare services in Canada (the Canadian Incidence Study of Reported Child Abuse and Neglect: CIS-1998) revealed that 69% of substantiated cases of child physical abuse occurred within the context of a disciplinary interaction (Trocmé et al., 2001). In 2003, data from the second cycle of the CIS revealed that 75% of substantiated cases of physical maltreatment were cases of physical punishment (Durrant et al., 2006). Similarly, in

2008, data from the third cycle of the CIS revealed that nearly three quarters (74%) of substantiated physical abuse cases had occurred in the context of punishment (Jud & Trocmé, 2012).

Given the lack of data on the relationship between Level 2 Triple P and parental use of physical punishment, the continued use of physical punishment by Canadian parents, and the mounting evidence that physical punishment and abuse are indistinguishable, examining the impact of Level 2 Triple P on parental use of physical punishment is worthwhile. The primary objectives of Triple P, the program's content, and research on the more intensive levels of Triple P suggest that receiving Triple P parent education may decrease parental use of physical punishment. First, one of Triple P's objectives is to promote the use of positive discipline by helping parents develop positive parenting strategies. Helping parents develop positive parenting skills and respond to conflict without violence (e.g., discussing and setting rules) may reduce aggressive responses to child behaviour including use of physical punishment. Second, Triple P content may also affect parents' choice of discipline strategies. Triple P not only discourages the use of physical punishment but also provides information to parents regarding effective non-physical strategies for responding to children's behaviour (Sanders et al., 2005; Voisine & Baker, 2012). Increasing parents' knowledge may prompt parents to consider options other than physical punishment. Parents with greater knowledge of child development and effective parenting strategies have been found to: 1) have less lax, over-reactive, and verbose parenting styles, (2) use less punitive discipline strategies, and (3) be less likely to abuse their children than parents with less knowledge (Hammond-Ratzlaff, & Fulton, 2001; Huang, Caughy, Genevro, & Miller, 2005; Morawska, Winter, & Sanders, 2009). By helping parents develop positive parenting skills and by educating them regarding child development and the effectiveness of various parenting strategies, Triple P can reduce aggressive responses to child behaviour and thereby prevent or

reduce incidence of child maltreatment. A large scale population trial of Triple P has already demonstrated the program's preventive impact on child maltreatment (Prinz et al., 2009). In that study, 18 South Carolina counties were randomly assigned to either a county wide implementation of all levels of Triple P or to a services as usual comparison group. Decreases in child maltreatment, child out-of-home placements, and child maltreatment injuries were found for the Triple P system counties. Finally, research on targeted Triple P suggests that the program is effective not only in reducing use of coercive parenting practices but in increasing use of positive parenting strategies (de Graaf, Speetjens, Smit, de Wolff & Tavecchio, 2008a; Plant & Sanders, 2007; Roberts et al., 2006; Sanders et al., 2007; Sofronoff, Jahnel, & Sanders 2011; Turner, Richards & Sanders 2007; Whittingham, Sofronoff, Sheffield, & Sanders, 2009). Thus, it is reasonable to expect that receiving Level 2 Triple P parent education will reduce parental use of physical punishment.

Non-physical punishment and non-punitive parenting responses. The non-physical forms of punishment of interest for the proposed study are: withholding of privileges, penalties, and time-out. Explaining rules or teaching desirable behaviour, using rewards to encourage desirable behaviour or to stop misbehaviour, monitoring children's behaviour, withdrawing attention while problem behaviour continues, and diverting away from misbehaviour or toward desirable behaviour are the non-punitive parenting strategies of interest. Although non-physical forms of punishment and non-punitive parenting strategies were considered separately in the proposed study, they are hereby discussed under one section as only four studies have examined the effect of Level 2 Triple P on these parenting practices.

A few studies have examined the effectiveness of brief Triple P interventions. However, these studies have focused on individual family consultations based on Level 3 Triple P (Turner & Sanders, 2006) or brief discussion groups on specific topics (e.g., child misbehaviour when

shopping) that include elements of more intensive levels of Triple P such as video modeling, homework assignments, and problem solving exercises (Joachim et al., 2010; Morawska et al., 2011). The four studies that have examined the impact of Level 2 Triple P on child and parental outcomes have focused on global discipline styles or global measures of parenting practices that include both effective and ineffective strategies (those associated with coercive discipline) for managing misbehaviour. (McConnell et al., 2010; Sanders et al., 2009; Sumargi, Sofronoff, & Morawska 2014; Sumargi, Sofronoff, & Morawska, 2015). For example, McConnell et al. (2010) conducted an evaluation of the impact of integrating Triple P services into Parent Link Centres (PLCs) in Alberta, Canada⁷. One of the goals of the evaluation was to assess whether Levels 2 and 3 Triple P enhanced client outcomes compared to PLC services as usual. Level 2 Triple P was defined as providing health promotion information or advice for specific concerns regarding child development or behaviour issues. Parent education was provided via one-on-one sessions or group seminars with the use of videotapes and parenting tip sheets. Level 3 Triple P included a four-session intervention that incorporated one-on-one active skills training for parents of children with mild to moderate behaviour problems (McConnell et al., 2010; Sanders, 2008). Intervention sites consisted of PLCs that provided Levels 2 and 3 Triple P as well as services as usual while comparison sites consisted of PLCs that provided services as usual only. Outcomes of interest included: parent satisfaction with PLC services, parenting stress, family functioning, child behaviour, and parenting styles. Comparisons of child, parent, and family outcomes of interest revealed no differences between Triple P and Services as usual groups (McConnell et al., 2010).

Although McConnell et al. (2010) examined whether Triple P (Levels 2 and 3) enhanced client outcomes compared to PLC services as usual, the authors did not focus solely on the effect

⁷ All information discussed in this section is based on McConnell et al., 2010

of Level 2 Triple P on outcomes of interest for their study. Further, parenting practices were measured with the Parenting scales of the National Longitudinal Survey of Children and Youth (NLSCY) which measure global parenting styles: positive, ineffective, consistent, and rational parenting. Although these parenting scales have been shown to have good psychometric properties (Statistics Canada, n.d.), problems with scale items are evident. For example, some of the items of the Consistent Parenting scale use child compliance as a measure of the parent's consistency as opposed to focusing on parental behaviour. Scale items ask how often the child ignores a punishment, gets out of a punishment, or gets away with things. Ineffective Parenting scale items may not measure ineffective parenting. Some of these items assess parenting self-efficacy and how often parents lose control of their emotions. Including scale items that assess parenting strategies being used and related outcomes (e.g., was the strategy effective in dealing with the situation) may be more useful.

Sumargi, Sofronoff, and Morawska (2014) also examined whether Level 2 Triple P enhanced parent and child outcomes (parent parenting style, child behaviour problems) with a sample of 30 Indonesian parents residing in Australia. However, the focus was on examining the effect of delivering one 90 minute Triple P seminar (as opposed to all three seminars). A pre-post design with a 3 month follow-up component was used. Of interest to the present study, parenting style was measured with the Laxness and Over-reactivity subscales of the Parenting Scale (Arnold, O'Leary, Wolff, & Acker, 1993). This scale measures global parenting styles and yields an overall dysfunctional parenting score as well as scores on three subscales: Over-reactivity or authoritarian parenting, laxness or permissive parenting, and verbosity which involves long reprimands and reliance on talking (Arnold et al., 1993). Child emotional and behavioural problems were measured with the Child Adjustment and Parent Efficacy Scale (CAPES, Morawska, Sanders, Haslam, Filus, & Fletcher, 2014). Compared to pre-intervention, parents

reported less frequent use of dysfunctional parenting practices (permissive parenting style in particular) and reduction in child emotional and behavioural problems post-intervention. The effects were maintained at 3 month follow-up.

Two studies have explicitly examined the effect of Level 2 Triple P (all 3 seminars) on various child and parental outcomes. Sanders, Prior, and Ralph (2009) assessed the impact of the brief seminar series on parenting style, inter-parental conflict, relationship quality, parental adjustment, parental confidence, and behavioural and emotional problems in children. A sample of 244 Australian parents who had a child between the ages of 4 and 7 were assigned to either a: (1) partial exposure condition that involved attending the introductory seminar, (2) full exposure condition that involved attending all three seminars, or a (3) waitlist control group. The Parenting Scale (Arnold et al., 1993) was used to measure parenting style: Over-reactivity or authoritarian parenting, laxness or permissive parenting, and verbosity which involves long reprimands and reliance on talking. It was hypothesized that post-intervention, there would be significant reductions in lax, over-reactive, and verbose parenting practices as well as overall dysfunctional parenting for parents in the full and partial exposure conditions. Parents in both the full and partial exposure groups reported lower level of over-reactivity and lower total levels of dysfunctional parenting compared to parents in the waitlist control group.

Although Sanders et al. (2009) examined the effects of Level 2 Triple P and found it to be effective in improving parenting practices, the study focused on global measures of “dysfunctional” parenting styles as measured by the Parenting Scale (Arnold et al., 1993). Further, results from this study were based on data provided by parents who were randomly assigned to study conditions as well as data from parents who enrolled late and were allocated to conditions (study results are based on randomly and non-randomly assigned samples).

Recently, Sumargi, Sofronoff, and Morawska (2015) examined the effects of Level 2 Triple P on various child and parental outcomes (parent parenting style, child behaviour problems) using a randomized pre-post waitlist comparison group design with a 6 month follow-up component. The sample consisted of 143 parents residing in Indonesia. Child emotional and behavioural problems were measured with CAPES (Morawska et al., 2014). To measure parenting practices, Sumargi et al. used the Parenting Subscale of the Parenting and Family Adjustment Scale (PAFAS, Sanders, Morawska, Haslam, Filus, & Fletcher, 2014) as well as the Laxness and Over-reactivity subscales of the Parenting Scale (Arnold et al., 1993). The Parenting subscale of PAFAS includes four subscales: Parental consistency, Coercive parenting, Positive encouragement, and Parent-child relationship. Items are scored on a scale of 0 (Not at all) to 3 (Very much/most of the time). Items are summed to obtain a total score. Higher scores indicate higher use of dysfunctional parenting. Parents in the intervention group reported fewer behavioural problems, had significantly lower scores on laxness and over-reactivity, and had significant lower scores on dysfunctional parenting compared to parents in the waitlist control condition at post-intervention. The effects were maintained at 6 month follow-up.

Although Sumargi et al. (2015) examined the effects of Level 2 Triple P and found it to be effective in improving parenting practices, the study focused on global measures of “dysfunctional” parenting styles (laxness, over-reactivity) and global measures of parenting practices that include both effective and ineffective strategies (positive encouragement, consistency, coercive parenting). The authors did not examine the relationship between Level 2 Triple P and these more specific set of parenting practices (consistency, positive encouragement). Further, the effect of Level 2 Triple on other discipline methods such as non-physical forms of punishment and non-punitive parenting strategies and specific parental behaviours such as use of physical punishment is not yet known.

Triple P is designed to enhance parents' child development knowledge, parenting skills, and confidence and thereby increase use of positive parenting strategies (Sanders, 1999; Sanders, 2008; Sanders et al., 2003). Teaching parents to increase positive interactions with their children and reduce or prevent use of aggressive and inconsistent parenting practices is essential for preventing child maltreatment (Sanders & Pidgeon, 2011). Triple P promotes the use of the non-physical forms of punishment and non-punitive parenting strategies of interest for the present study. Therefore, it is reasonable to expect that participation in Level 2 Triple P should increase parental use of non-physical forms of punishment and non-punitive parenting strategies.

Purpose of the Present Study

Given the lack of research on Level 2 Triple P, the methodological problems noted in the available research, and the lack of data on the relationship between Level 2 Triple P and the outcomes of interest, the proposed study sought to examine these relationships. Specifically, parental use of physical punishment, non-physical forms of punishment (imposed consequences for misbehaviour), and non-punitive parenting strategies (explaining or teaching desirable behaviour, using rewards to encourage desirable behaviour or stop misbehaviour, monitoring children's behaviour, diverting children away from misbehaviour or toward desirable behaviour, and withdrawing attention while the problem behaviour continues) were compared before and after parents attended Level 2 Triple P parent education seminars. Belsky's (1984) postulate was examined using data from the International Parenting Survey-Canada (IPS-C). The dimensions of child (age, sex, child behaviour), parent (age, education, engagement in religious gatherings, participation in parent education program), and socio-contextual characteristics (family size, family type, employment status, income adequacy) to predict coercive parenting were examined and the most important sources of influence were determined.

It was expected that the findings of the proposed study would have practical as well as theoretical implications. First, the findings would contribute to the knowledge base on the effectiveness of less intensive levels of Triple P. Second, information about impact of Triple P parent education on parental use of physical punishment would be useful in informing public and parent education programs aimed at reducing incidence of physical punishment. The findings could therefore contribute to the literature on promoting and enhancing healthy child development as well as to child maltreatment prevention strategies. Finally, it was expected that the proposed study may provide support for Belsky's (1984) proposition regarding the primary importance of parental factors on parenting behaviour.

Hypotheses

Belsky's (1984) Determinants of Parenting model and research on the efficacy of Triple P suggest that parental factors including participation in parent education should influence parenting behaviour, specifically the use of physical punishment, non-physical forms of punishment, and non-punitive parenting responses. Based on Belsky's (1984) Determinants of Parenting model and research regarding the effect of Triple P on parenting practices, it was hypothesized that receiving Level 2 Triple P parent education would affect parental use of physical punishment, non-physical forms of punishment, and non-punitive parenting strategies. It was also expected that Belsky's (1984) proposition regarding the importance of parent characteristics to parental behaviour would be supported. Four hypotheses were tested in the proposed study. It should be noted that the first three hypotheses were examined with data collected from the Triple P sessions and the fourth hypothesis was examined using IPS-C data.

1. Post-intervention, compared to pre-intervention, mothers would use physical punishment less frequently.
2. Post-intervention, compared to pre-intervention, mothers would use non-physical

forms of punishment (withholding of privileges, penalties, and time-out) more frequently.

3. Post-intervention, compared to pre-intervention, mothers would use non-punitive parenting strategies (explain/teach, diversion, reward, monitoring, planned ignoring) more frequently.
4. As postulated by Belsky (1984), parental factors would be the strongest predictors of parenting behaviour (coercive parenting) followed by contextual factors and child factors.

Chapter 4: Method

This chapter provides an overview of the methodology used in the present study. The study design, sample, materials, data collection procedures, variables of interest, ethical considerations, and data analysis are presented. It should be noted that the methodology described pertains to the first component of this research where participants were recruited and asked to participate in Triple P parenting sessions. International Parenting Survey- Canada methodology is described later in the chapter and where appropriate in the following sections.

Design

This project was originally designed as a randomized pre-post waitlist comparison group design. However, due to recruitment challenges⁸, a pre-post intervention design was used. Baseline data were collected from participants via an online survey prior to participation in the intervention. Post-intervention data were collected two weeks following intervention completion.

Sample

⁸ Participant recruitment began in March 2014. Various recruitment strategies were used as noted in the Sampling Procedure section of this chapter. By July 2014, twenty-four mothers had signed up for the study. As the study was to be a randomized controlled trial, 12 mothers were assigned to the intervention group and were asked to attend the parenting seminars in July/August 2014. Despite reminders, of the 12 participants who had signed up, only 5 showed up and only 4 completed all three seminars. Mothers who were assigned to the comparison group were asked to attend the seminars in September 2014. Of the 12 participants who had signed up for the study, 7 attended and 6 completed all three seminars. As this left only 10 participants and having seen how hard it would be to get parents to attend three seminars, the study design was changed to a Pre-Post Design in September 2014.

It should be noted that my Advisory committee suggested I may be able to get more participants if I partnered with a school division or community agency who may be interested in hosting the seminars. Therefore, as the seminars were being offered, I looked for a school division or community agency who would be interested in hosting the seminars, obtained official permission from their ethics boards, and began making preparations with them to offer the seminars once again.

The sample size required for this study, inclusion criteria, and sampling procedure are discussed below.

Sample size calculation. As the study design changed to a pre-post intervention design, sample size calculations were conducted to determine the number of participants needed to examine hypotheses 1 to 3. The minimum number of participants required to detect a medium effect size (0.6) when comparing mean differences for a given sample for a one tailed test (examining statistical significance in the direction of interest as hypothesized), where power = .80 and alpha = .05 was determined to be 27 participants (Faul, Erdfelder, Buchner, & Lang, 2009). To examine hypothesis 4, data from the International Parenting Survey-Canada (IPS-C) were used. This dataset consists of 2,340 cases. As all parents who completed the survey provided information regarding the variables of interest, all cases were used.

Inclusion criteria. For the Triple P intervention component of this project, there were a few inclusion criteria. Originally, only mothers were going to be invited to participate. However, as it was challenging to find participants, fathers were also invited to participate. Hence, parents of two to six year old children were invited to participate. This age group was selected for two reasons. First, Triple P in Manitoba focuses on families of children under the age of six (Unger, Campbell, & Feldgaier, 2009). Second, research suggests that pre-schoolers are most likely to experience physical punishment (Clément, Bouchard, Jetté, & Laferrière, 2000; Durrant et al., 2004; Wauchope & Strauss, 1992). Therefore, it was expected that by including pre-schoolers, the potential to detect change would be maximized. All participants were required to be 18 years of age or older, speak English, have a child who is between two and six years of age, and not have participated in another parent education program (e.g., Nobody's Perfect). For the IPS-C component of this study, all parents who provided information regarding the variables of interest were included in the analysis (all 2,340 cases). In order to participate in the IPS-Canada, parents

had to have at least one child aged 2 to 12 years.

Sampling procedure. For the Triple P component of this research, finding participants proved challenging and various recruitment strategies were used: (1) managers of Winnipeg community agencies in the Healthy Child Manitoba database were asked to share study information (information letter and flyer described in the next section) with their clients, (2) various sites were approached and provided consent to put up study flyers and speak to people about the study (paediatricians' offices in the city of Winnipeg, daycare centres in all 12 Winnipeg community areas -the Manitoba Child Care Association sent out study information prior to my visits, City of Winnipeg public indoor and outdoor pools, City of Winnipeg public libraries, community centres, family centres, resource centres, YMCAs, Safeway stores, and Access clinics), (3) all Winnipeg's Parent-Child coalitions, the Interlake Parent-Child Coalition, the Francophone Parent-Child Coalition and various University of Manitoba and Red River College departments were also contacted and all agreed to advertise the study.

As the response rate was very low, fathers were also invited to participate and all Winnipeg school divisions, community agencies, and Parent-Child Coalitions were approached to gauge their interest in hosting the seminars. Once an agency or coalition agreed to host the seminars, daycares, community centres, and parent-child drop-in centres in the area were visited and study information was shared with parents. Study information was also advertised through a study facebook page, community newspapers, and respective Parent-Child Coalitions' contacts. Over the next six months, this addition to the recruiting strategy resulted in 17 more parents responding and agreeing to participate. After 13 months of recruitment, a total of 27 parents had agreed to participate. Recruitment was discontinued two months after the last offering of the seminars, once all venues that could host the parenting seminars had been approached.

Through a standardized telephone script (described in the section below), interested parents were screened for inclusion criteria and elements of informed consent were reviewed (e.g., study's purpose and procedures, potential risks and benefits of participation, confidentiality, voluntary participation). Interested parents were sent a copy of the consent form for them to sign and return via email or post (for mothers with no access to email). Parents who signed and returned the consent form were added to the list of participants to receive study session information and reminders. Only two mothers decided not to participate after obtaining study information and this was because location of seminar offerings was too far from their place of residence. However, details as to when and where seminars would be offered again were provided to these two mothers for the remaining of the study. They did not participate.

Intervention sample. A total of 27 participants attended all three seminars. Complete data (no missing questions) was provided by 26 participants. Table 1 summarizes sample characteristics. All but one of the participants were female. The majority of participants were married (74.1%) and were between the ages of 28 and 42 years (77.7%). Respondents were asked to identify the cultural or ethnic group to which they belong (other than Canadian). The cultural or ethnic group classification used for the present study was based on the classification used by the Canadian Incidence Study of Child Abuse and Neglect, CIS-2003 and the Statistics Canada 1996 Census (Statistics Canada, 1996; Trocmé et al., 2001). When asked about their ethnic background, 44.4% identified as European, 18.5% as Aboriginal, and 18.5% indicated their ethnicity was "Other". It should be noted that European referred to having ancestors from any of the European countries. Although "European" is not an ethnic background nor is "Black," these response categories were provided in an attempt to have fewer response categories and a shorter survey (as opposed to listing every possible country).

Participants who attended the seminars were highly educated. Slightly more than a third

Table 1

Demographic Characteristics of Parents in the Intervention Sample

Parent Characteristics	n	%
Marital Status (n=27)		
Single	1	3.7
Married	20	74.1
Living with Partner	4	14.8
Divorced	2	7.4
Missing data	0	0.0
Total	27	100.0
Sex (n=27)		
Female	26	96.3
Male	1	3.7
Missing data	0	0.0
Total	27	100.0
Age (n=27)		
18-22	1	3.7
23-27	4	14.8
28-32	10	37.0
33-37	6	22.2
38-42	5	18.5
43+	1	3.7
Missing data	0	0.0
Total	27	100.0
Education (n=27)		
Grade school	--	--
Some high school	5	18.5
Completed high school	2	7.4
Some college or technical school	4	14.8
Completed 4 year college or university	6	22.2
Some post-graduate education	--	--

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Completed a post-graduate degree (M.A., M.D., PhD., etc)	10	37.0
Missing data	0	0.0
Total	27	100.0
Partner's Education (n=26)		
Grade school	--	--
Some high school	1	3.7
Completed high school	5	18.5
Some college or technical school	6	22.2
Completed 4 year college or university	7	25.9
Some post-graduate education	1	3.7
Completed a post-graduate degree (M.A., M.D., PhD., etc)	3	11.1
Not applicable	3	11.1
Missing data	1	3.7
Total	27	100.0
Number of Children (under 18 yrs) Living with Parent (n=27)		
1	14	51.9
2	12	44.4
4	1	3.7
Missing data	0	0.0
Total	27	100.0
Household Income (n=27)		
\$0-2,9999	1	3.7
\$3,000-7,999	--	--
\$8,000-12,999	--	--
\$13,000-19,999	1	3.7
\$20,000-29,999	3	11.1
\$30,000-39,999	--	--
\$40,000-49,999	2	7.4
\$50,000-59,999	3	11.1
\$60,000-79,999	4	14.8
\$80,000-99,999	5	18.5
\$100,000 and over	8	29.6

Missing data	0	0.0
Total	27	100.0
Number of People Living on this Income (n=27)		
2	2	7.4
3	11	40.7
4	13	48.1
6	1	3.7
Missing data	0	0.0
Total	27	100.0
Type of Home Participant Lives in (n=27)		
Apartment, condo, or co-op owned by participant or partner	--	--
Rented apartment or condo	4	14.8
Trailer on property owned by another family member or friend living on the same property	--	--
Trailer in a trailer park or other rented property	--	--
Rented house	6	22.2
House owned by participant or partner	17	63.0
Home owned by another member of the household (e.g., a family member living with you)	--	--
Other	--	--
Missing data	0	0.0
Total	27	100.0
Ethnic Background (n=27)		
Aboriginal (First Nations, Inuit, Metis)	5	18.5
Chinese	2	7.4
Korean	--	--
Filipino	--	--
Japanese	--	--
European	12	44.4
Latin American	--	--
Black (e.g., African, Haitian, Jamaican)	2	7.4
Arab/West Asian (e.g., Armenian, Egyptian, Iranian, Lebanese, Moroccan)	--	--

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South Asian (e.g., East Indian, Pakistani, Punjabi, Sri Lankan)	1	3.7
South East Asian (e.g., Cambodian, Indonesian, Laotian, Vietnamese)	--	--
Other	5	18.5
Missing data	0	0.0
Total	27	100.0

(37.0%) indicated having completed a post-graduate degree. Approximately two thirds of participants reported having a household income of \$60,000 or more and reported living in houses they or their partners owned (62.9% and 63.0% respectively).

Participants were asked to answer questions in reference to their 2 to 6 year old child. If they had more than one child in that age group, they were asked to choose one on whom to focus their responses (the target child). More than half of the target children were boys (see Table 2). Almost two-thirds of the target children were between 3 and 4 years. Of the 85% of participants who answered the question about the relationship between the target child and the parents, all but one reported that the target child was the biological child of the respondent and his or her partner.

Materials

Information letter and recruitment flyer. The information letter (Appendix A) and recruitment flyer (Appendix B) for the Triple P component of this research were shared with all sites listed in the previous section. The letter included information about the purpose of the study and study procedures. The letter also included information pertaining to costs and benefits associated with participation, confidentiality, anonymity, and voluntary participation. The flyer's purpose was to attract parents who had a child between the ages of 2 and 6 years of age and who would be interested in obtaining tips or additional information to help them during tricky situations such as bedtime battles, temper tantrums or aggression. The flyer included a description of the Triple P seminars, summarized what participation entailed, provided contact information for parents who were interested in participating, gave incentive details and stated the study had been approved by the University of Manitoba's Education/Nursing Research Ethics Board.

Telephone recruitment script. Through a standardized telephone script (Appendix C),

Table 2

Characteristics of Target Children in the Intervention Sample

Child Characteristics	n	%
Child sex (n=27)		
Female	11	40.7
Male	16	59.3
Missing data	0	0.0
Total	27	100.0
Child age at last birthday (n=27)		
1-2	6	22.2
3-4	17	62.9
5-6	4	14.8
Missing data	0	0.0
Total	27	100.0
Relationship of Child to Parent (n=27)		
Child by birth	26	96.3
Child by adoption	1	3.7
Missing data	0	0.0
Total	27	100.0
If Living with a Partner, is Child your Partner's Biological Child (n=26)		
Yes	23	85.2
No	1	3.7
Not applicable	2	7.4
Missing data	1	3.7
Total	27	100.0

mothers interested in participating in the Triple P sessions were informed about the purpose of the study and were screened for inclusion criteria. If mothers did not meet the inclusion criteria, they were thanked for their interest. Mothers who met the inclusion criteria were informed about the study procedures, seminar venue and dates, benefits (e.g., incentive) and costs, and were given information regarding voluntary participation, confidentiality and anonymity. If after learning more about the study mothers decided not to participate, they were thanked for their time and consideration. Mothers who agreed to participate were asked for their name, phone number, email address (or mailing address if they did not have access to email) and whether they were interested in receiving a summary of the findings once the study was completed. Mothers were advised that they were being asked for their phone number so they could be reminded of the seminar start times and venue. Email or mailing addresses were obtained so a copy of the consent form could be sent to them to review and sign as well as a summary of the study's findings once the project was completed. Finally, mothers had the opportunity to ask questions and were thanked beforehand for their participation.

Consent form. The consent form (Appendix D) was emailed to mothers who agreed to participate in the Triple P sessions. Mothers who did not have an email address were sent a copy of the consent form to their mailing address along with a postage paid return envelope. The consent form provided more details about study information shared with mothers during initial telephone contact (telephone script). The consent form stated the title of the study, the principal investigator and supervisor's names as well as all elements of a consent form: study purpose and procedures (including a brief description of the Triple P seminars), benefits, compensation, potential risks or discomforts, voluntary participation, confidentiality, anonymity, and a statement of consent.

Survey questionnaire (pre-intervention and post-intervention). The survey

questionnaire used for the Triple P component of this study included sections of the Parent form of the Dimensions of Discipline Inventory-DDI and one of the sections of the Adult Recall form of the DDI (Straus & Fauchier, 2007). The DDI is designed to assess a wide range of disciplinary strategies used by parents as well as the context (e.g., confidence, stress, conflict with partner, perceived ineffectiveness), modes of administration (e.g., consistency, cognitive framing, impulsiveness, warmth/support, warning, responsiveness), and parents' cognitive appraisal of discipline behaviours (Straus & Fauchier, 2007). The instrument is based on the view that specific discipline behaviours are not used in isolation; rather, they form part of a disciplinary process together with the context, mode of administration, and cognitive appraisal of the discipline behaviours (Straus & Fauchier, 2007). The DDI focuses on 26 of the most frequently used discipline behaviours by parents (both punitive and non-punitive) and these are used to create nine discipline method scales: Corporal punishment, Deprivation of privileges, Psychological aggression, Penalty tasks and restorative behaviour, Diversion, Explain/teach, Ignore misbehaviour, Reward, and Monitor. The 26 discipline behaviours can also be combined to create seven alternative discipline behaviour scales: Punitive discipline (number of times punitive discipline behaviours were used), Non-punitive discipline (number of times non-punitive discipline was used), Inductive discipline (number of times misbehaviour is corrected by focusing on child's cognitions and using positive reinforcement), Disciplinary repertoire (number of non-aggressive discipline behaviours used), Disciplinary effort (combined frequency of using the 26 behaviours), Percent of effort (percent that each behaviour contributes to total disciplinary effort), and Disciplinary response (ratio of disciplinary effort to child misbehaviour). In addition to these scales, demographic information collected through the DDI (income, one-versus-two parent family, parental education, family size, family housing type) can be combined to create a Socio-demographic risk index, an indicator of children's environmental factors that

can affect children's well-being (Moore, Vandivere, & Redd, 2006).

The DDI has five sections. Sections A and B collect demographic information about the parent and child as well as the frequency and severity of misbehaviour by the child. Section C measures parents' use of 26 discipline behaviours (punitive and non-punitive). Section D collects information about the context in which discipline occurs and the mode of implementation used by parents. Finally, Section E collects information regarding current parents' attitudes toward various discipline behaviours (Straus & Fauchier, 2007). There are three versions of the DDI: the Parent Report form which is designed for parents, the Adult Recall form which asks adults to provide data on the discipline behaviours used by their parents when they were ten years old, and the Child Report form which asks children about the discipline behaviours of their parents. Parts A and B of all versions of the DDI are identical in content. However, for Part C (26 discipline behaviours), the Adult Recall and Child Report forms ask about the discipline behaviours used by both mothers and fathers. The Context and Implementation Mode items of Section D of the Adult Recall and Child Report forms also include questions in reference to the adult's and child's mother and father. Finally, for Section E (parents' cognitive appraisal of discipline behaviours) of the Child Report form, children are asked for their own opinions regarding various discipline behaviours (Straus & Fauchier, 2007). It should be noted that the Adult Recall form of the DDI asks adults about the discipline practices they experienced when they were ten years of age. Age ten is the default reporting age as: (1) most ten year olds still engage in behaviours that require disciplinary action, (2) parents may still use discipline behaviours (e.g., corporal punishment) considered inappropriate for older children, and (3) adults' recall of parental behaviour is better for older than younger referent periods (Straus & Fauchier, 2007). Also, the Child Report form of the DDI has been designed for children six years of age and older. For children who are between the ages of six and nine years,

it is recommended that the form be administered as an interview (Straus & Fauchier, 2007).

The internal consistency of the DDI has been examined with samples of university students and parents. Cronbach alphas for the DDI Discipline scales have ranged from .50 to .61 across samples of parents. These alpha coefficients do not meet the convention for an acceptable level of internal consistency. An instrument should have a reliability of at least .70 and preferably closer to .90 to be considered useful (Aron & Aron, 1994). Alpha coefficients obtained with samples of university students range from .51 to .89 (Straus & Fauchier, 2007). Although the psychometric data based on samples of parents calls into question the reliability of the DDI, the fact that the instrument has been found to have good reliability with samples of university students is promising. Other instruments, such as the Conflict Tactics Scales, have been developed using data based on student samples (Straus & Fauchier, 2007). The DDI has also been found to have good validity: (1) the 26 discipline behaviours have face validity as they measure how often each discipline method is used by the parent (2) scores on the DDI's Socio-demographic risk index have been found to correlate significantly with mothers' and fathers' corporal punishment and psychological aggression, and (3) parents' use of discipline methods as measured by each of the scales have been found to differ. For example, in a sample of 53 parents, corporal punishment was the least frequently used scale (used 22 times in past year) while Explain/teach was the most frequently used scale with parents reporting they had used this strategy 250 times in the past year (Straus & Fauchier, 2007).

Strengths of the DDI include its: (1) brevity (administration time is 10 to 20 minutes), (2) comprehensiveness (measures several aspects of discipline), (3) applicability to research, clinical, and parent-education settings, (4) inclusion of information regarding level of child misbehaviour as perceived by the parent which is important in understanding parental use of discipline behaviours, and (5) its ability to capture the reporting of both frequently and rarely occurring

behaviour. For example, parents indicate the number of times a discipline behaviour was used in the past month rather than using categories such as never, sometimes, and often (Straus & Fauchier, 2007). Weaknesses of this instrument include: (1) only one item is used to measure each of the 26 discipline behaviours, (2) two to four items make up each of the nine discipline method scales, (3) the instrument provides information on the context and method of implementation of discipline in general, not with regard to each of the specific discipline behaviours, and (4) data based on a sample of parents suggests the instrument has low internal consistency (Straus & Fauchier, 2007). However, when evaluating the reliability of the DDI, it should be kept in mind that alpha coefficients are affected by the number of scale items and that the DDI scales consist of two to four items at the most. Further, with a sample of university students, the instrument has been found to have good internal consistency.

In light of the low internal consistency of the DDI among parent samples, the questionnaire used for the Triple P intervention component of this study also included four items of the Parental Responses to Child Misbehavior Revised (PRCM-R) scale. The PRCM is a 9-item scale designed to assess parental responses to child misbehaviour (Holden, 2001). Parents are asked to use a 7-point Likert scale to indicate how frequently they use the following responses: reasoning, diverting, negotiating, threatening, use of time-out, spanking, ignoring, withdrawal of privileges, and yelling (Holden, 2001). Response categories include the letters “A” to “G” which correspond to never, less than once a week, 1 to 2 times, 3 to 4 times, 5 to 6 times, 7 to 8 times, and 9 or more times respectively (Holden, 2001). The PRCM-R expands on the physical punishment item and asks how often parents: spank with hand, spank with object, slap face, and slap hand. These are the four items that were used in the present study.

Test- retest reliability for the original PRCM has been reported for a sample of middle-to-upper-middle-class mothers: Correlations for various items averaged .64 (Holden,

2001). Correlation values of .70 or higher are considered good (Aron & Aron, 1994). The PRCM has been found to have good validity. For instance, reports of spanking have been found to correlate significantly with a measure of attitudes toward spanking as well as reported daily reports of spanking: $r = .54$ and $.77$ respectively (Holden, 2001; Holden et al., 1995). It should be noted that the physical punishment items of the PRCM were included in the questionnaire as the DDI has been shown to have low internal consistency with samples of parents.

For the Triple P component of this study, the pre-intervention questionnaire consisted of the 4 items from the PRCM-R noted above, sections A, B, and C of the Parent Report form of the DDI, and section C of the Adult Recall form of the DDI (Appendix E). The post-intervention questionnaire consisted of the 4 items from the PRCM-R and sections A, B, and C of the Parent form of the DDI (Appendix F). FluidSurveys, an online survey software, was used to create the pre and post-intervention questionnaires used.

Thank-you letter, compensation, and summary of findings. A thank-you letter was emailed to parents who participated in the parenting sessions after they had completed the post-intervention questionnaire. The purpose of the thank-you letter was to thank parents for their participation, re-state the purpose of the study, provide the link to the Triple P website for additional parenting-related information, and advise those who indicated an interest in receiving a summary of the findings that the summary would be sent to them upon study completion (see Appendix G). To thank parents for their participation and provide some compensation for their time, parents who attended all three seminars had the opportunity to enter their name into three \$50 draws. Participants also had the chance to enter their names into a draw to win \$50 upon completing the pre-test and another \$50 upon completing the post-test. When the data analysis was completed (approximately 6 months after they completed the post-intervention questionnaire), a summary of the findings was sent to parents via email (all parents requested the

summary be sent via email). The summary was written in plain language and point form (Appendix H).

Procedure

Outcome and predictor variables selected for the present study as well as instruments that were used to collect this information are discussed in the sections that follow. The data collection procedure as well as procedures used for ensuring informed consent, anonymity, and confidentiality are presented. Finally, the statistical tests used to examine each of the study's hypotheses are highlighted.

Variables selected for the present study. The variables of interest for this study were: parental use of physical punishment, non-physical forms of punishment, and non-punitive parenting strategies as well as coercive parenting, child, parent, and socio-contextual variables. To test Belsky's postulate (hypothesis 4) data from the International Parenting Survey-Canada (IPS-C) were used.

International Parenting Survey-Canada. The International Parenting Survey was designed by researchers in Australia and Germany (Lee et al., 2014). It is an international initiative designed to collect data on parents' need, access to, and preferences for parenting support. It is also designed to encourage international comparison and collaboration. Countries who have collected data include: Australia, Germany, Canada, New Zealand, Hong Kong, the United Kingdom and Switzerland (Lee et al., 2014). In the current study, Canadian data were used to examine hypothesis 4.

The IPS is an online survey for parents of children between the ages of 2 and 12 years of age. If parents have more than one child, they are asked to answer the survey in relation to their youngest child in that age group (Lee et al., 2014). The IPS collects information about the selected target child's behaviour, parents' confidence in dealing with problem behaviour, and

parents' use of various parenting strategies. The survey also collects information regarding parents' current use of parental support, their awareness of parenting programs or support, obstacles they see in accessing parental support, and preferences for the modality of delivery of parenting programs. Demographic information regarding the child and the parent completing the survey is also collected. The survey can be completed in about 20 minutes (Lee et al., 2014; Perron et al., 2014).

In Canada, investigators contacted agencies that work with children and parents (e.g., child protection agencies, early learning centres, health units, mental health agencies, child day care centres) and invited them to participate. Twenty-nine agencies from the provinces of Alberta, Ontario, Prince Edward Island, and Quebec agreed to assist with data collection (Perron et al., 2014). The IPS-C received approval from the research ethics boards of the universities of all investigators (including the University of Manitoba). When recruiting, partner agencies emphasized the anonymous nature of the survey as well as the right of participants to: (1) choose whether they wanted to participate, (2) omit items that made them feel uncomfortable or items they did not wish to answer, and (3) withdraw from the study or exit the survey at any point in time (Lee et al., 2014; Perron et al., 2014).

Partner agencies recruited participants through notices on their websites, electronic bulletins, newsletters, and through posters in their offices. These notices included a link to the survey that participants could access to complete the survey. If parents were interested in participating but did not have internet access, partner agencies gave them paper copies of the survey. Parents were asked to return completed paper copies of the survey in a sealed envelope to participating agencies. Paper copies were sent to the Principal Investigator of the IPS-C at the University of Ottawa where the data were entered by a research assistant (Lee et al., 2014; Perron et al., 2014).

Data collection took place between April 2012 and April 2013. The IPS-C was not a stratified random sample. All parents who had a child between the ages of 2 and 12 could participate. Thus, the sample for the IPS-C is a convenience sample and not representative of the Canadian population. A total of 2,340 Canadian parents completed the survey (Lee et al., 2014; Perron et al., 2014).

International Parenting Survey-Canada sample. The IPS-C consists of a sample of 2,340 Canadian parents who had a child between the ages of 2 and 12 years. As Table 3 shows, the target children (children parents reported on) were almost equally divided between males and females, and the modal age category was 4 to 7 years. Only 0.1% of children scored in the highest range on the Child Behavioural Problems subscale of the CAPES, and the modal category was 1 to 20. A closer examination of parents' responses to the questions that make up this subscale is provided in Table 4. On each item describing a typical problem behaviour, fewer than 10% of parents indicated that it was true "very much or most of the time." On each item describing a positive behaviour, more than half of parents indicated that it was true at least a "good part of the time."

The majority of IPS-C survey respondents were female (89.8%) and between 30 and 39 years of age (52.7%). Survey respondents were asked to indicate the ethnic or cultural group with which they most strongly identified. The majority of participants (88.3%) indicated they were White. It should be noted that the cultural or ethnic group classification used in the IPS-C was based on the classification used by Statistics Canada for the National Household Survey 2011 (Statistics Canada, 2015). "Mixed Race" was a response option provided to survey respondents. Although "Mixed Race" is not an ethnicity, this response option was provided so respondents who identify with two or more population groups could be counted and/or included (Statistics Canada, 2015). Although no explanation was given as to why response categories "White" and

Table 3

Child, Parent, and Socio-Contextual Characteristics of International Parenting Survey-Canada Sample

Characteristics	n	%
Child		
Age (n=2340)		
0-3 yrs	773	33.1
4-7 yrs	926	39.6
8-11 yrs	503	21.4
12 yrs	138	5.9
Missing data	0	0.0
Total	2340	100.0
Gender (n= 2339)		
Female	1116	47.7
Male	1223	52.3
Missing data	1	0.0
Total	2340	100.0
Behavioural Problems Subscale ^a (n=2333)		
0	5	0.2
1-20	1404	60.0
21-40	857	36.6
41-60	65	2.8
61+	2	0.1
Missing data	7	0.3
Total	2340	100.0
Parent		
Sex (n=2301)		
Female	2101	89.8
Male	200	8.5
Missing data	39	1.7
Total	2340	100.0
Age (n=2339)		
19 or younger	7	0.3

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20-29	324	13.8
30-39	1233	52.7
40-49	695	29.7
50-59	71	3.0
60+	9	0.4
Missing data	1	0.0
Total	2340	100.0
Ethnicity (n=2306)		
White	2067	88.3
Chinese	25	1.1
South Asian (e.g., East Indian, Pakistani, Sri Lankan)	31	1.3
Black	22	0.9
Filipino	8	0.3
Latin American	20	0.9
Southeast Asian (e.g., Cambodian, Indonesian, Laotian, Vietnamese)	10	0.4
Arab	11	0.5
West Asian (e.g., Afghan, Iranian)	3	0.1
Japanese	4	0.2
Korean	1	0.0
First Nations	40	1.7
Métis	15	0.6
Mixed race (please specify)	30	1.3
Other (please specify)	19	0.8
Missing data	34	1.5
Total	2340	100.0
Education (n=2314)		
High school or less	377	16.1
Trade/Technical college	768	32.8
University or post-graduate degree	1169	50.0
Missing data	26	1.1
Total	2340	100.0
Participation in religious gatherings (n=2303)		

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Has attended in past month	687	29.4
Has not attended in past month	1616	69.1
Missing data	37	1.6
Total	2340	100.0
Participation in parent education programs (n=1978)		
Has participated in at least 1 program	355	15.2
Has not participated in any	1623	69.4
Missing data	362	15.5
Total	2340	100.0
Socio-contextual		
Family type (n=2337)		
Single parent family	303	12.9
Not a single parent family	2034	86.9
Missing data	3	0.1
Total	2340	100.0
Family size -number of children in the household (n=2340)		
1-2	1809	77.3
3-4	488	20.9
5-6	38	1.6
7+	5	0.2
Missing data	0	0.0
Total	2340	100.0
Employment status (n=2215)		
Not working for pay	511	21.8
Part time	415	17.7
Full time	1289	55.1
Missing data	125	5.3
Total	2340	100.0
During past year, was there a time when you could not meet essential expenses? (n=2278)		
Yes	429	18.3
No	1849	79.0
Missing data	62	2.6

LEVEL 2 TRIPLE P AND PARENTAL RESPONSES

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Total	2340	100.0
After paying for essential expenses, how much money is left over? (n=2309)		
Enough to comfortably purchase most things we want	838	35.8
Enough to purchase only some of things we want	985	42.1
Not enough to purchase much of anything we want	486	20.8
Missing data	31	1.3
Total	2340	100.0

^aThe Behavioural Problems Subscale from the Child Adjustment and Parent Efficacy Scale (CAPES).

Table 4

Behavioural Problems Subscale Items

Behavioural Problems Subscale Items	n	%
Child gets upset/angry when don't get their way	(n=2333)	
Not true at all	143	6.1
True a little or some of the time	1402	59.9
True quite a lot or good part of time	587	25.1
True very much or most of time	201	8.6
Missing data	7	0.3
Total	2340	100.0
Child refuses to do jobs around house when asked	(n=2333)	
Not true at all	734	31.4
True a little or some of the time	1293	55.3
True quite a lot or good part of time	236	10.1
True very much or most of time	70	3.0
Missing data	7	0.3
Total	2340	100.0
Child worries	(n=2333)	
Not true at all	814	34.8
True a little or some of the time	1095	46.8
True quite a lot or good part of time	331	14.1
True very much or most of time	93	4.0
Missing data	7	0.3
Total	2340	100.0
Child loses their temper	(n=2333)	
Not true at all	403	17.2
True a little or some of the time	1417	60.6
True quite a lot or good part of time	403	17.2
True very much or most of time	110	4.7
Missing data	7	0.3
Total	2340	100.0
Child argues/fights with other children/siblings	(n=2333)	

Not true at all	639	27.3
True a little or some of the time	1257	53.7
True quite a lot or good part of time	360	15.4
True very much or most of time	77	3.3
Missing data	7	0.3
Total	2340	100.0
Child refuses to eat food	(n=2333)	
Not true at all	692	29.6
True a little or some of the time	1153	49.3
True quite a lot or good part of time	349	14.9
True very much or most of time	139	5.9
Missing data	7	0.3
Total	2340	100.0
Child takes too long getting dressed	(n=2333)	
Not true at all	956	40.9
True a little or some of the time	946	40.4
True quite a lot or good part of time	312	13.3
True very much or most of time	119	5.1
Missing data	7	0.3
Total	2340	100.0
Child hurts me or others (hits, pushes, bites etc)	(n=2333)	
Not true at all	1463	62.5
True a little or some of the time	732	31.3
True quite a lot or good part of time	113	4.8
True very much or most of time	25	1.1
Missing data	7	0.3
Total	2340	100.0
Child interrupts when parent speaking to others	(n=2333)	
Not true at all	313	13.4
True a little or some of the time	1252	53.5
True quite a lot or good part of time	574	24.5
True very much or most of time	194	8.3

Missing data	7	0.3
Total	2340	100.0
Child seems fearful and scared	(n=2333)	
Not true at all	1292	55.2
True a little or some of the time	867	37.1
True quite a lot or good part of time	137	5.9
True very much or most of time	37	1.6
Missing data	7	0.3
Total	2340	100.0
Child has trouble keeping busy without adult attention	(n=2333)	
Not true at all	1280	54.7
True a little or some of the time	801	34.2
True quite a lot or good part of time	185	7.9
True very much or most of time	67	2.9
Missing data	7	0.3
Total	2340	100.0
Child yells, shouts, or screams	(n=2333)	
Not true at all	796	34.0
True a little or some of the time	1167	49.9
True quite a lot or good part of time	288	12.3
True very much or most of time	82	3.5
Missing data	7	0.3
Total	2340	100.0
Child whines or complains	(n=2333)	
Not true at all	406	17.4
True a little or some of the time	1429	61.1
True quite a lot or good part of time	410	17.5
True very much or most of time	88	3.8
Missing data	7	0.3
Total	2340	100.0
Child acts defiant when asked to do something	(n=2333)	
Not true at all	784	33.5

True a little or some of the time	1270	54.3
True quite a lot or good part of time	218	9.3
True very much or most of time	61	2.6
Missing data	7	0.3
Total	2340	100.0
Child rudely answers back to me	(n=2333)	
Not true at all	1056	45.1
True a little or some of the time	1068	45.6
True quite a lot or good part of time	161	6.9
True very much or most of time	48	2.1
Missing data	7	0.3
Total	2340	100.0
Child seems unhappy or sad	(n=2333)	
Not true at all	1677	71.7
True a little or some of the time	564	24.1
True quite a lot or good part of time	67	2.9
True very much or most of time	25	1.1
Missing data	7	0.3
Total	2340	100.0
Child has trouble organizing tasks or activities	(n=2333)	
Not true at all	1275	54.5
True a little or some of the time	766	32.7
True quite a lot or good part of time	201	8.6
True very much or most of time	91	3.9
Missing data	7	0.3
Total	2340	100.0
Child can keep busy without constant adult attention	(n=2333)	
Not true at all	100	4.3
True a little or some of the time	398	17.0
True quite a lot or good part of time	866	37.0
True very much or most of time	969	41.4
Missing data	7	0.3

Total	2340	100.0
Child cooperates at bedtime	(n=2333)	
Not true at all	96	4.1
True a little or some of the time	377	16.1
True quite a lot or good part of time	986	42.1
True very much or most of time	874	37.4
Missing data	7	0.3
Total	2340	100.0
Child can do age appropriate tasks by themselves	(n=2333)	
Not true at all	75	3.2
True a little or some of the time	161	6.9
True quite a lot or good part of time	588	25.1
True very much or most of time	1509	64.5
Missing data	7	0.3
Total	2340	100.0
Child follows rules and limits	(n=2333)	
Not true at all	59	2.5
True a little or some of the time	450	19.2
True quite a lot or good part of time	933	39.9
True very much or most of time	891	38.1
Missing data	7	0.3
Total	2340	100.0
Child gets on well with family members	(n=2333)	
Not true at all	43	1.8
True a little or some of the time	169	7.2
True quite a lot or good part of time	727	31.1
True very much or most of time	1394	59.6
Missing data	7	0.3
Total	2340	100.0
Child is kind and helpful to others	(n=2333)	
Not true at all	51	2.2

True a little or some of the time	185	7.9
True quite a lot or good part of time	794	33.9
True very much or most of time	1303	55.7
Missing data	7	0.3
Total	2340	100.0
Child does what they are told to do by adults	(n=2333)	
Not true at all	55	2.4
True a little or some of the time	335	14.3
True quite a lot or good part of time	1147	49.2
True very much or most of time	796	34.1
Missing data	7	0.3
Total	2340	100.0

“Black” were used, it could be that these response options were provided in an attempt to have fewer response categories and a shorter survey (as opposed to listing every possible country). The “White” and “Black” response categories are not ethnicities. This is problematic as these classifications do not provide information regarding the specific ethnic or cultural group to which the person’s ancestors belong. For instance, if a person indicates they are in the “White” category, it could mean they are German, Ukrainian, French, or other. Providing additional information in brackets besides each of the response categories would help in this regard.

More than three quarters of parents reported having attended post-secondary education. The majority of those who completed the survey reported: living in two parent-households, having up to two children living in the household, not having attended a religious gathering in the past month, and not having participated in any parent education program. A little over half of those who completed the survey reported working full-time and one fifth indicated there had been a time in the past year when their income was inadequate to meet essential expenses.

Outcome variables.

Coercive parenting. Data from the IPS-C were used to assess coercive parenting. The IPS-C included the Parenting and Family Adjustment Scales (PAFAS) and one of its subscales, the Coercive Parenting Subscale, was used to assess coercive parenting in the current study. The PAFAS is a 30-item scale that assesses parenting practices and parent and family adjustment. It has seven subscales: Parental teamwork, Family relationships, Parental adjustment, Parent-Child relationship, Positive encouragement, Parental consistency, and Coercive parenting. The Coercive parenting subscale consists of the following 5 items: “I shout or get angry with my child when s/he misbehaves,” “I try to make my child feel bad (e.g., guilt or shame) for misbehaving,” “I spank my child when s/he misbehaves,” “I argue with my child about

his/her behaviour or attitude,” and “I get annoyed with my child.” Each item is rated on a 4-point scale ranging from not true of me at all (0) to true of me very much (3). A total Coercive parenting score is calculated by the summing of scores on scale items. Higher scores indicate higher levels of dysfunctional parenting.

Psychometric evaluation of the PAFAS has found that its scales have good internal consistency as well as predictive validity (Sanders et al., 2013). To assess the reliability of the PAFAS, H coefficients have been examined where values .70 are considered good indicators of internal consistency. The H coefficients for the PAFAS Parenting scales have been reported to be .70 for Parental consistency, .78 for Coercive parenting, .85 for Parent-child relationship, and .75 for Positive encouragement (Sanders et al., 2014). The predictive validity of PAFAS has been examined by assessing associations between PAFAS scales and the scales of other instruments such as the Child Adjustment and Parent Efficacy Scale (CAPES). PAFAS and CAPES scales have been found to correlate significantly and positively (Sanders et al., 2014). It should be noted that initial validation of the PAFAS has not provided support for the convergent and discriminant validity of its parenting scales (Positive encouragement, Parental consistency, and Coercive parenting) suggesting more research in this area is needed.

Physical punishment. Parental use of physical punishment was measured with the 4 items that make up the DDI’s Corporal Punishment scale. These items assess how often the parent: (1) shakes or grabs the child to get their attention, (2) spansks, slaps, smacks, or swats the child, (3) uses a paddle, hairbrush, belt or other object, and (4) washes the child’s mouth out with soap, puts hot sauce on their tongue, or something similar. Although all items ask about more than one behaviour (i.e., shake or grab), no changes were made to them as breaking them down into individual items would create additional items to be included in an already lengthy questionnaire.

A total CP score was calculated for each participant as proposed by Straus and Fauchier

(2007). Response categories for each item have assigned values: Never = 0, A few times a month (2-3 times a month) = 36, Weekly (1-2 times a week) =50, Several times a week (3-4 times a week) =200, Daily (5 or more times a week) =350, Two or more times a day =700. Each item is assigned a score based on respondents' response to the item. A total Corporal Punishment score is obtained by summing scores across the four scale items. CP scores can range from 0 to 2100. The higher the score, the more frequently physical punishment is used. It should be noted that the DDI scales' scoring schemes are based closely on the scoring for the various versions of the Conflict Tactics Scale (For more information on development of scoring schemes see Straus, 2001, 2006). The assigned item values are extrapolations to annual frequency estimates (annual frequency values for the Conflict Tactics Scales). For example, a response of a few times a month (2-3 times a month) was given a value of 36 as 3 multiplied by 12 months is 36 times per year. A response of weekly (1-2 times a week) was given a value of 50 as the number of weeks per year was rounded down to 50. Thus 50 is once per week for the year. A response of several times a week (3-4 times a week) was given a value of 200 as 4 times per week multiplied by 50 weeks equals 200. A response of daily (5 or more times a week) was given a value of 350 as the number of days in a year was rounded down to 350. Thus, 350 represents daily for one year. Finally, a response of two or more times a day was given a value of 700 as twice per day multiplied by 350 days in a year equals 700 (A. Fauchier, personal communication, November 6, 2013).

The scoring system of the DDI is rather curious. The assigned item values (annual frequencies) are arbitrarily chosen (i.e., a response of daily was given a value of 350 as number of days in a year was rounded down to 350). These high values or weighting system may distort the results. To assess whether using the simple rating scale given to parents (as opposed to the assigned item values or annual estimates) would yield different results for the pre to post DDI

comparisons, these analyses were conducted with both the annual estimates and the simple rating scale given to parents. For the latter analyses, individual items were scored using the original ratings (not the annualized estimates). There was no difference in results whether the annual estimates or the simple rating scale was used. Results are reported in Chapter 5 and findings are discussed using the annual estimates in Chapter 6.

As the DDI has been shown to have low internal consistency, parents' responses to two items of the DDI's Corporal Punishment scale (How often did you spank, slap, smack, or swat this child? How often did you use a paddle, hairbrush, belt, or other object?) were compared to parents' responses to PRCM-R items (spank with hand, spank with object, slap face, slap hand). The PRCM-R is a four item scale that assesses parents' use of physical punishment. A total score cannot be obtained with the PRCM-R as the focus is on obtaining information about the frequency of specific responses (Holden, 2001). PRCM-R items are scored from 1 to 7 based on respondents' responses to the item (1 = Never, 2 = Less than once per week, 3 = 1 to 2 times per week, 4 = 3 to 4 times per week, 5 = 5 to 6 times per week, 6 = 7 to 8 times per week, and 7 = 9 or more times per week). Higher numbers indicate more frequent use of the specific response.

A Spearman's rank-order correlation analysis was conducted to determine the relationship between the DDI item: "How often did you spank, slap, smack, or swat this child?" and the four items of the PRCM-R. As can be seen in Table 5, the DDI item correlated significantly with all PRCM-R items. There were strong, negative correlations for all items except one. The relationship between the DDI item: "How often did you use a paddle, hairbrush, belt, or other object?" and the PRCM-R item that assesses use of spanking with an object was also examined through a Spearman's rank-order correlation analysis. There was a strong, negative correlation between the items, which was statistically significant ($r_s(25) = -.665, p = .000$). The inverse relationship found between DDI and PRCM scale items can be explained by the coding of these

Table 5

Spearman's Rank-Order Correlations Among DDI and PRCM-R Items

Items	1	2	3	4	5
1. DDI item: How often did you spank, slap, smack, or swat this child?	---				
2. PRCM-R item: How often did you spank with hand?	-.856**	---			
3. PRCM-R item: How often did you spank with object (e.g., belt)?	-.658**	.509**	---		
4. PRCM-R item: How often did you slap face?	-.427*	.398*	.665**	---	
5. PRCM-R item: How often did you slap hand?	-.826**	.717**	.399*	.311	---

Note. N = 27

*p < .05. **p < .01

items. PRCM items were coded such that 1 corresponded to “Never” and 7 corresponded to “9 or more times” (most frequent use). DDI items on the other hand were coded such that 1 corresponded to “Two or more times a day” (most frequent use) and 6 corresponded to “Never”. Given how DDI and PRCM scale items were coded, it makes sense scale items were negatively correlated.

A frequency analysis of the PRCM items also revealed that the distributions of the data on these items were highly skewed: The majority of respondents answered “Never” to the items. Given that: (1) PRCM items were highly skewed, (2) DDI physical punishment items correlated significantly with PRCM-R items, and (3) the DDI also has other scales that can be used to assess constructs of interest for the present study (non-physical forms of punishment and non-punitive parenting responses), the DDI was used to calculate the outcomes of interest.

Non-physical punishment. The non-physical forms of punishment of interest for the current study were: deprivation of privileges, penalty tasks and restorative behaviours, and time-out. Two subscales of the Power Assertive/Punitive Discipline scale of the DDI as well as one item from the Diversion scale (measures parents’ use of time-out) were used to calculate mothers’ use of non-physical forms of punishment. The Power Assertive/Punitive Discipline scale consists of four subscales: Corporal Punishment, Psychological Aggression, Deprivation of Privileges, and Penalty Tasks and Restorative Behaviour. The Deprivation of Privileges and Penalty Tasks and Restorative Behaviour scales were used to assess mothers’ use of these parenting strategies. The Deprivation of Privileges scale consists of four items that ask how often the parent: (1) takes away the child’s allowance, toys, or other privileges because of misbehaviour (takes away for good), (2) sends the child to bed without a meal, (3) withholds the child’s allowance, toys, or other privileges until they do as told (takes away but gives back after a period of time), and (4) grounds the child or restricts their activities outside the home because of

misbehaviour. The Penalty Tasks and Restorative Behaviour scale consists of three questions that ask how often the parent: (1) gives the child extra chores as a consequence, (2) makes the child do something to make up for some misbehaviour such as pay for a broken window, and (3) makes the child apologize for misbehaving. Finally, two items make up the Diversion scale of the DDI. These items ask how often parents: (1) put the child in time-out or send them to their room for a period of time, and (2) give the child something else they might like to do instead of what they were doing wrong.

The same procedure used to calculate a Power Assertive/Punitive Discipline scale score (Straus & Fauchier, 2007) was used to obtain a total non-physical forms of punishment score. That is, the assigned scores for the items from the Deprivation of Privileges scale, Penalty Tasks and Restorative Behaviour scale, and the time-out item from the Diversion scale were summed: Never = 0, A few times a month = 36, weekly =50, several times a week =200, daily =350, two or more times a day =700. Total non- physical forms of punishment scores could range from 0 to 5600. The higher the score, the more frequently non-physical forms of punishment are used.

Non-punitive parenting responses. The non-punitive parenting behaviours of interest were: explain/teach, planned ignoring, reward, monitoring, and diversion. The Non-Punitive Discipline scale of the DDI was used to measure mothers' use of these parenting strategies. This scale consists of five subscales. The Explain/Teach subscale is made up of two items that ask how often the parent explains rules to the child and shows the right thing to do. The Ignore Misbehaviour subscale is also composed of two items asking how often the parent deliberately does not pay attention when the child misbehaves and how often the parent lets the child misbehave so the child has to deal with the results. The Reward subscale consists of three items that ask how often parents: (1) praise the child for stopping bad behaviour or for behaving

well, (2) give the child money or other things for stopping bad behaviour or for behaving well, and (3) check on the child so they can tell them they were doing a good job. The Monitoring subscale is made up of two items that ask how often parents tell the child they are watching to see if they do something wrong and how often they actually check on the child to see if they were misbehaving. Finally, the Diversion scale consists of two items as discussed in the previous section. However, only one of these items was used to assess parents' use of diversion. This item asks how often parents give the child something else they might like to do instead of what they were doing wrong.

The one item from the Diversion scale and items from the Explain/teach, Ignore Misbehaviour, Reward, and Monitoring subscales were summed to obtain a total non-punitive discipline score. Response categories for scale items have assigned values: Never = 0, a few times a month = 36, weekly =50, several times a week =200, daily =350, two or more times a day = 700. Total non-punitive discipline scores could range from 0 to 7000. The higher the score, the more frequently non-punitive parenting behaviours are used. A summary table identifying measures and total score calculations used in the present study can be seen in Appendix I.

Predictor variables. Child, parent, and socio-contextual variables that were used to test Belsky's theoretical proposition are discussed in this section. It should be noted that all these variables are readily available from the IPS-C data.

Child variables. Child age, sex, and behavioural problems were the child characteristics that were used to test Belsky's postulate. Child age in years is an interval level variable. Child sex is a nominal level variable (0 = female, 1 = male). To assess child behaviour problems, the Children's Behaviour Problems subscale of the Child Adjustment and Parental Efficacy Scale (CAPES) was used (Morawska, Sanders, Haslam, Filus, & Fletcher, 2014). The IPS-C included

CAPES as part of the survey. CAPES is a measure of child behavioural and emotional adjustment and parental efficacy. It is designed for children aged 12 and under and consists of 30 items rated on a 4-point scale where 0 corresponds to not true of my child at all, 1 corresponds to true of my child a little or some of the time, 2 corresponds to true of my child quite a lot or a good part of the time, and 3 corresponds to true of my child very much or most of the time. The Emotional Problems subscale consists of three items (i.e., my child misbehaves at mealtime, my child cries more than other children their age, my child talks about their views, ideas and needs appropriately) while the Behaviour Problems subscale consists of 24 items (i.e., my child follows rules and limits). To obtain a Behavioural Problems subscale score, items are summed with a possible range of 0-72 as some items are reverse scored. Higher scores indicate higher levels of problems. CAPES has been found to have good internal consistency as well as satisfactory convergent and discriminant validity (Morawska et al., 2014). Cronbach alphas for the Behavioural Problems subscale have ranged from .91 to .90 with samples of parents (Perron et al., 2014). A Cronbach alpha of .74 has been reported for the Emotional Problems subscale.

It is possible that some of the Behaviour Problem items are correlated with child age. For example, “The child gets angry/upset when they don’t get their way” item may be more relevant to younger children. “The child refuses to do jobs around the house when asked” may be more relevant to older children. To explore whether Behaviour Problem scores were confounded by child age, a Spearman’s rank-order correlation analysis was conducted on these two variables. As can be seen in Table 6, all correlations were small and all but two were significant. It should be noted that items 19 to 24 are items that are reversed scored. For these items 0 corresponds to “True very much or most of the time” and 3 corresponds to “Not true at all”. Two of these items (“Child can do age appropriate tasks by themselves” and “Child gets on well with family members”) correlated positively and significantly with child age. That is, as child age increased,

Table 6

Spearman's Rank-Order Correlations Among Child Age Variable and Behavioural Problems Subscale

Items

Items	1	2	3	4	5	6	7	8	9
1. Child age in years	---								
2. Child gets upset/angry when don't get their way	-.211**	---							
3. Child refuses to do jobs around house when asked	.014	.334**	---						
4. The child worries	.365**	.074**	.084**	---					
5. Child loses their Temper	-.152**	.603**	.333**	.126**	---				
6. Child argues/fights with other children/siblings	.098**	.258**	.226**	.115**	.323**	---			
7. Child refuses to eat food	-.196**	.273**	.270**	.032	.236**	.082**	---		
8. Child takes too long getting dressed	.012	.183**	.230**	.131**	.158**	.028	.185**	---	
9. Child hurts me or others (hits, pushes, bites etc)	-.344**	.374**	.254**	-.052*	.390**	.225**	.204**	.098**	---

Items	1	2	3	4	5	6	7	8	9
10. Child interrupts when parent speaking to others	-.087**	.320**	.255**	.145**	.280**	.167**	.203**	.287**	.194**
11. Child seems fearful and scared	.065**	.127**	.128**	.467**	.153**	.088**	.134**	.167**	.067**
12. Child has trouble keeping busy without adult attention	-.100**	.261**	.213**	.142**	.228**	.079**	.204**	.236**	.225**
13. Child yells, shouts, or screams	-.237**	.491**	.300**	.059**	.553**	.320**	.241**	.140**	.420**
14. Child whines or complains	-.133**	.406**	.248**	.153**	.361**	.214**	.255**	.221**	.201**
15. Child acts defiant when asked to do something	-.071**	.415**	.424**	.110**	.439**	.273**	.253**	.213**	.311**
16. Child rudely answers back to me	.207**	.315**	.318**	.216**	.366**	.294**	.135**	.177**	.176**
17. Child seems unhappy or sad	.248**	.167**	.200**	.412**	.224**	.147**	.061**	.192**	.078**
18. Child has trouble organizing tasks or activities	.240**	.174**	.299**	.241**	.180**	.162**	.119**	.287**	.086**
19. Child can keep busy without adult attention	-.102**	.241**	.175**	.065**	.202**	.058**	.148**	.166**	.199**

Items	1	2	3	4	5	6	7	8	9
20. Child cooperates at bedtime	-.105**	.261**	.253**	.055**	.223**	.107**	.203**	.209**	.235**
21. Child can do age appropriate tasks by themselves	.043*	.146**	.193**	.098**	.178**	.102**	.118**	.157**	.163**
22. Child follows rules and limits	-.165**	.360**	.304**	-.025	.338**	.162**	.185**	.123**	.310**
23. Child gets on well with family members	.075**	.228**	.209**	.071**	.263**	.340**	.082**	.056**	.202**
24. Child is kind and helpful to others	-.046*	.286**	.249**	.009	.290**	.247**	.135**	.062**	.271**
25. Child does what they are told to do by adults	-.138**	.371**	.326**	.002	.337**	.183**	.203**	.160**	.317**

Note. N = 2340

*p < .05. **p < .01

the value of these variables went up (Not true at all). The correlation between child age and “Child can do age appropriate tasks by themselves” is surprising as one would expect this item to be more relevant to older children. The correlation between child age and “Child gets on well with family members” may reflect more parent-child or family conflict as children get older. The significant associations between child age and the Behavioural Problems Subscale items suggest that age is interacting with the behaviour problem items. Therefore, a child age by behaviour problem interaction variable was computed and examined as a predictor of coercive parenting.

Parent variables. Parent age, education, engagement in religious gatherings, and participation in parent education program were the parent variables of interest. Parent age in years is an interval level variable. Parent education was an ordinal level variable with the following response categories: (1) Less than high school, (2) Completed high school, (3) Trade/Technical college qualification, (4) University degree, and (5) Post graduate degree. This variable was recoded so that 0 corresponded to high school or less, 1 corresponded to Trade/Technical college and 2 to university or post-graduate degree. This was done as a frequency analysis revealed that very few parents indicated having “some high school” or “less than a high school” education (3.4 and 0.4% respectively).

Engagement in religious gatherings was an ordinal level variable measuring the frequency with which parents took part in religious gatherings. Response categories were: (1) Not in the past month, (2) A few times a month, (3) Once or twice a week, (4) Nearly every day, and (5) Every day. This variable was recoded so that a value of 0 indicated the person had not taken part in religious gatherings in the past month and a value of 1 indicated the person had taken part in religious gatherings in the past month. Finally, a categorical variable was used to assess whether parents had participated in programs on child development, child behaviour, or

parenting. For the IPS-C, parents were asked to indicate whether they have attended (Yes), not attended (No), or if they're not sure (Not Sure) they have attended the following programs: (1) Triple P Positive Parenting Program, (2) Incredible Years Program, (3) The Bricks and Mortar Parenting Program, (4) Nobody's Perfect, (5) Community Parent Education Program (COPE), (6) Stop Now and Plan (SNAP), and (7) Other. Participants can also select "Can't recall program name." A variable in IPS-C called "Participation in Parenting Programs" codes parents' participation in these programs as: did not participate in ANY parenting program, participated in at least 1 parenting program, participated ONLY in Triple P, participated ONLY in Incredible Years, uncertain parenting program participation (responded 'not sure' and did not respond 'yes'), and uncertain parenting program participation (responded only '0' and '999'). This variable was recoded so a value of 0 corresponded to "have not participated in ANY parenting program" while a value of 1 corresponded to "participation in at least one parenting program". All other categories were coded as missing. This variable was used to capture parents' participation in parent education programs. It should be noted that the original variable from which these variables were created listed a number of programs including a program that does not exist (The Bricks and Mortar program). This program was included in case parents had taken a program but did not remember the program's name (personal communication with Kathy Chan, August 11, 2015). However, the original variable also included a response option "Can't recall program Name." Therefore, it is unclear why respondents would select the Bricks and Mortar program. A frequency analysis of the original variable revealed that only one survey respondent (0%) indicated they had participated in the Bricks and Mortar parenting program. Although it is not known whether the one respondent's endorsement of the Bricks and Mortar program was treated as missing data by those who created the IPS-C dataset variables and particularly, the "Participation in Parenting Programs" variable, as only one respondent indicated participating

in the non-existent program, the “Participation in Parenting Programs” variable was used to create the dummy variable used for the present study.

Socio-contextual variables. Five socio-contextual variables were of interest: family type, family size, employment status, and two variables that capture income inadequacy. Family type was a categorical variable with the following response categories (referring to the household in which the target child was currently living): (1) Original family (both biological or both adoptive parents present), (2) Step family (two parents, one being a step parent), (3) Single parent family, and (4) Other (please describe). This variable was recoded so that 0 corresponded to “Not a single parent family” (“Original family”, “Step family”, and “Other” categories) and 1 corresponded to “Single parent family.” Family size was an interval level variable representing the number of children living in the household at the time of the survey. No changes were made to it.

Three variables were used to get a more complete picture of the family’s financial situation. One variable collects data on employment status while the other two assess income adequacy. The employment status variable available in the IPS-C asked parents if they were working at the time of the survey. The response categories were: (1) Yes, full time; (2) Yes, part time; (3) Not working for pay (stay at home parents, retired, looking for work); and (4) Home based paid work (child car, sewing, internet or phone based work etc.). This variable was recoded such that 0 corresponded to not working for pay (stay at home parents, retired, looking for work), 1 corresponded to working part-time, and 2 corresponded to working full time. Home based paid work was coded as missing as interest was on paid employment outside the home. That is, the literature review presented in chapter 2 pertaining to this variable focused on paid employment only. Also, a preliminary frequency analysis of this variable revealed only 4% of participants

worked from home.

Finally, to assess income inadequacy, two questions were used. One question asked: “During the past 12 months, has there been a time when your household could not meet its essential expenses?” Response categories include: (1)Yes, (2)No, and (3)Don’t Know. This variable was recoded into a dummy variable such that 0 corresponded to yes and 1 corresponded to no. “Don’t Know” was coded as missing. This was done as interest was on parents who could report whether their household could meet essential expenses. A preliminary frequency analysis of this variable also revealed that only 1.6% of parents fell in the “Don’t Know” category. The other question asked: “After you have paid for your essential expenses like food, housing, utilities, child care, and medical care, how much money is left over?” The response categories were: (1) Enough that I/we can comfortably purchase most of the things we really want, (2) Enough that I/we can purchase only some of the things we really want, and (3) Not enough to purchase much of anything I/we really want.

Data collection. For the Triple P intervention component of this research, pre and post-intervention questionnaires were created with FluidSurvey. Parents were telephoned and emailed three days prior to the first seminar to remind them of seminar start times and venue. An accredited Level Two Triple P practitioner was hired to facilitate the seminars and all seminars were facilitated by the same individual for consistency. Parents were asked to complete the pre-intervention questionnaire electronically prior to attending the seminars (they were sent an email with a link to the online survey two weeks before the first seminar). Those who requested a paper copy of the survey as they did not check their email frequently were sent a copy of the questionnaire via post. The Seminar Series was then delivered to participating parents with one week between seminars. Two weeks following the completion of the third seminar, participating parents were sent an email with a link to the post-intervention questionnaire and

were asked to complete it. Parents who requested the surveys be sent to them via post were sent a copy of the post-intervention questionnaire via post. Once all parents completed the post-intervention questionnaire, participating parents were sent a thank-you letter via email (although some parents requested paper copies of the questionnaires, all parents indicated they wanted to receive the thank-you email and summary of the findings via email).

Ethical considerations for Triple P Component of this Research

Procedures for obtaining parental consent. All criteria for informed consent (e.g., purpose of the study, confidentiality, anonymity, benefits/costs) were reviewed with potential participants upon initial telephone contact. Parents who agreed to participate were sent a copy of the consent form to review, sign, and return to me.

Procedures for ensuring anonymity and confidentiality. Through initial telephone contact and the consent form, parents who wished to participate were assured that: (1) only the doctoral student and her supervisor would have access to the information they provided through the online survey questionnaires, (2) their contact information (e.g., name, number, email, mailing address to be used to remind them of seminar dates, times, location) and data they provide would be kept separately in a locked cabinet, would not be connected to their online questionnaires, and would not be shared with anyone, (3) they would not be asked to provide their names when completing the online surveys (or write their names on the questionnaires for those who were sent paper copies), and (4) their names would not be used in publications or presentations of the study's findings as results would be presented in aggregate form. Participants were also told that all contact information and information provided through the online surveys would be destroyed once the project was completed and that the project had ethical approval from the University of Manitoba Education and Nursing Research Ethics Board (see Appendix D).

To ensure participants' contact information was not connected to their questionnaires,

their email addresses were uploaded onto FluidSurvey and invitation emails were sent directly to participants from the online platform. Email reminders were only sent to those who had not yet responded. To protect their anonymity, neither participants' computer ip addresses nor their identities were recorded by FluidSurvey or by the researcher. The program assigned a code to the survey link sent to each participant and recorded only the assigned code with each person's responses. Pre and post-intervention data were collected with the codes assigned by the program to each participant. Codes were used to connect pre to post-test data but not to connect data to individuals. Participants who requested paper copies of the questionnaires were given a randomly generated code to be used when completing them. No record of codes given to participants was kept. As participants were not asked to provide their names when completing the questionnaires and no record was kept of codes assigned to participants, all participants' responses remained anonymous.

Method of Data Analysis

Hypothesis 1 stated that post-intervention, compared to pre-intervention, mothers would use physical punishment less frequently. The scale that was used to assess maternal use of physical punishment (Corporal Punishment scale of the Dimensions of Discipline Inventory, DDI) allows for the calculation of a total score that reflects number of times physical punishment was used in the past month. This hypothesis was thus examined by comparing pre and post-intervention mean scores through a paired samples t-test.

Hypothesis 2 stated that post-intervention, compared to pre-intervention, mothers would use non-physical forms of punishment (withholding of privileges, penalties, and time-out) more frequently. Total non-physical forms of punishment scores that indicate the frequency with which mothers use these strategies were used to calculate mean scores. Pre and post-intervention mean scores were compared using a paired samples t-test.

Hypothesis 3 stated that post-intervention, compared to pre-intervention, mothers would use non-punitive parenting strategies (explain/teach, diversion, reward, monitoring, withdraw attention while problem behaviour occurs) more frequently. Total non-punitive discipline scores (frequency of use) were used to calculate pre and post-intervention mean scores. Pre and post-intervention scores were compared with a paired samples t-test.

Hypothesis 4 stated that, as postulated by Belsky (1984), parental factors would be the strongest predictors of parenting behaviour followed by contextual factors and child factors. For the outcome of interest (coercive parenting), a regression analysis was conducted and each set of independent variables (child, parent, socio-contextual) was entered based on Belsky's proposition that parenting is most influenced by parental factors followed by contextual and child factors. In step 1 the parental factors of interest were entered: age, education, engagement in religious gatherings, and participation in parent education programs. In step 2, the socio-demographic variables were added to the model: family type, family size, employment status and income inadequacy. In step 3, the child factors were added to the model: age, sex, and child behaviour. Model fit statistics, r-square change, and regression coefficients were examined to determine which predictors were the most important sources of influence. A regression model that included the significant predictors from the three models run was then tested to examine how each predictor performed when the variance accounted for by the non-significant predictors was removed.

Chapter 5: Results

In this chapter, the results of the analyses conducted to explore the hypotheses of interest will be presented. Triple P data results are first presented followed by International Parenting Survey-Canada (IPS-C) results.

Triple P Results

Tests of hypotheses.

Hypothesis one: Parents' use of physical punishment will decrease from pre- to post-intervention. Table 7 provides the results of the paired samples t-test on total use of physical punishment before and after attending the Triple P parenting sessions. There was a significant difference in the total use of physical punishment score pre ($M=31.69$, $SD=66.68$) and post-intervention ($M=7.46$, $SD=15.79$) for a one tailed test at the 0.05 level of significance; $t(25)=1.99$, $p=0.03$. The paired samples t-test on total use of physical punishment was also conducted with the simple rating scale given to parents to assess whether different results would be obtained (whether annualized estimates were confounding the findings). Results were similar: there was a significant difference in the total use of physical punishment score pre ($M=0.73$, $SD=1.34$) and post-intervention ($M=0.23$, $SD=0.51$) for a one tailed test at the 0.05 level of significance, $t(25)= 2.11$, $p=0.02$ (see Table 8). Results with both the annualized estimates and the simple rating scale showed that parental use of physical punishment decreased post-intervention.

To further examine this finding, a descriptive analysis of the items that make up the total physical punishment scale was conducted. As can be seen in Table 9, there was a decrease pre- to post-intervention only in the case of parental use of shaking. In the case of the spanking item, two parents moved categories (from more often to less often) but no one moved to the “never” category. There was also a floor effect for two of the four items of this scale. Before the

Table 7

Results of Paired Samples T-Test on Outcome Measures Using Dimensions of Discipline Inventory (DDI) Annualized Estimates

Variables	Continuous Variables		Paired t	p
	Pre	Post		
	n Mean (SD)	n Mean (SD)		
Total Physical Punishment score	(n=26) 31.69 (66.68)	(n=26) 7.46 (15.79)	1.99	0.03
Total Nonphysical Punishment score	(n=27) 572.22 (415.55)	(n=27) 591.93 (476.71)	-0.24	0.41
Total Nonpunitive Parenting score	(n=27) 2061.33 (957.82)	(n=27) 1977.48 (668.69)	0.55	0.29

Table 8

Results of Paired Samples T-Test on Outcome Measures Using Dimensions of Discipline Inventory

(DDI) Simple Rating Scale

Variables	Continuous Variables		Paired t	p
	Pre	Post		
	n Mean (SD)	n Mean (SD)		
Total Physical Punishment score	(n=26) 0.73 (1.34)	(n=26) 0.23 (0.51)	2.11	0.02
Total Nonphysical Punishment score	(n=27) 8.22 (3.85)	(n=27) 9.59 (4.55)	-2.06	0.03
Total Nonpunitive Parenting score	(n=27) 23.70 (5.81)	(n=27) 23.81 (5.45)	-0.10	0.46

Table 9

Frequencies for Pre and Post Physical Punishment Items

Outcomes of Interest	Pre n (%)	Post n (%)
Total Physical Punishment Score Items		
How often shake or grab this child		
Never	18(66.7)	27(100.0)
A few times a month (2-3 times a month)	6(22.2)	0
Weekly (1-2 times a week)	0	0
Several times a week (3-4 times)	3(11.1)	0
Daily (5 or more times a week)	0	0
Two or more times a day	0	0
Total	27	100.0
How often spank, slap, smack, or swat this child		
Never	22(81.5)	22(81.5)
A few times a month (2-3 times a month)	2(7.4)	4(14.8)
Weekly (1-2 times a week)	2(7.4)	1(3.7)
Several times a week (3-4 times)	1(3.7)	0
Daily (5 or more times a week)	0	0
Two or more times a day	0	0
Total	27	100.0
How often use paddle, hairbrush, belt, or other object		
Never	26(96.3)	26(96.3)
A few times a month (2-3 times a month)	1(3.7)	1(3.7)
Weekly (1-2 times a week)	0	0
Several times a week (3-4 times)	0	0
Daily (5 or more times a week)	0	0
Two or more times a day	0	0
Total	27	100.0
How often wash child mouth out with soap, put hot sauce on their tongue or something similar		
Never	26(100.0)	26(100.0)

LEVEL 2 TRIPLE P AND PARENTAL RESPONSES

A few times a month (2-3 times a month)	0	0
Weekly (1-2 times a week)	0	0
Several times a week (3-4 times)	0	0
Daily (5 or more times a week)	0	0
Two or more times a day	0	0
Total	26	100.0

intervention began, 26 of a total of 27 parents indicated they never washed their children's mouth out with soap and they never hit their children with objects. The floor effect on these two items means: (1) it was not possible to find a decrease on these items at post-test, (2) the two items are not useful for testing the physical punishment hypothesis as the distribution of scores on these items at pre-test did not allow for change at post-test, and (3) the testing of the physical punishment hypothesis is limited to the other two items of the scale (shaking and spanking items).

To further examine how the post-test scores of the physical punishment items differed from the pre-test scores, Wilcoxon signed-rank tests were conducted for each pair of items. This test is equivalent to the dependent samples t-test and does not assume normality in the data (the data were highly skewed). As can be seen in Table 10, post-test scores differed from pre-test scores for two items. However, post-test scores were statistically significantly higher than pre-test scores only for the shaking item, $Z = -2.76$, $p = .01$. That is, parental use of shaking significantly decreased from a mean frequency of a few times a month ($M=5.44$) pre-intervention to never ($M=6.00$) post-intervention.

Hypothesis two: Parents' use of non-physical forms of punishment will increase from pre- to post-intervention. Table 7 shows the results of the paired samples t-test on non-physical forms of punishment (withholding of privileges, penalties, and time-out) using the annualized estimates before and after attending the Triple P parenting sessions. There was no statistically significant difference in the total use of non-physical forms of punishment pre and post-intervention ($M=572.22$, $M=591.93$) for a one tailed test at the 0.05 level of significance, $t(26) = -.24$, $p=0.41$. Results of the paired samples t-test using the simple rating scale were similar (Table 8). There was no significant difference in the total use of non-physical punishment score pre ($M=8.22$) and post-intervention ($M=9.59$), for a one tailed test at the 0.05 level of significance

Table 10

Results of Wilcoxon Signed Rank Test Comparing Physical Punishment Items Pre and Post Intervention

Variables	Pre	Post	Zscore	p
	n	n		
	Mean (SD)	Mean (SD)		
	(n=27)	(n=27)		
How often shake or grab this child	5.44 (0.97)	6.00 (0.00)	-2.76	0.01
	(n=27)	(n=27)		
How often spank, slap, smack, or swat this child	5.67 (0.78)	5.78 (0.51)	-1.13	0.26
	(n=27)	(n=27)		
How often use paddle, hairbrush, belt, or other object	5.96 (0.19)	5.96 (0.19)	0.00	1.00
	(n=26)	(n=26)		
How often wash child mouth out with soap, put hot sauce on their tongue or something similar	6.00 (0.00)	6.00 (0.00)	0.00	1.00

$t(26) = -2.06, p = 0.03$.

Although there was no statistically significant difference in the total use of non-physical forms of punishment pre and post-intervention, the total non-physical punishment score increased ($M = 572.22, M = 591.93$). To further examine this increase, a frequency analysis of items that make up the non-physical forms of punishment scale was conducted. There was a floor effect for the item “How often do you send the child to bed without a meal?” (see Table 11). To examine whether this item affected the results of the paired sample t-test, the analysis was re-done without this item with both the annual estimates and the simple rating scale. When the annual estimates were used, there was no statistically significant difference in the total use of non-physical forms of punishment pre and post-intervention ($M = 572.22, M = 591.93$) for a one tailed test at the 0.05 level of significance, $t(26) = -.24, p = 0.41$. Results of the paired samples t-test using the simple rating scale were similar. There was no significant difference in the total use of non-physical punishment score pre ($M = 8.22$) and post-intervention ($M = 9.59$), for a one tailed test at the 0.05 level of significance, $t(26) = -2.06, p = 0.03$.

The frequency analysis also revealed that all remaining items of the non-physical forms of punishment scale showed increases in some of their categories pre- to post-intervention (see Table 11). For instance, in the case of taking away allowance, toys, and privileges, 11.1% of parents (3 parents) reported doing this several times a week prior to the intervention while 25.9% (7 parents) reported doing this several times a week after the intervention. Similarly, there was an increase pre- to post-intervention for some of the categories of the withhold allowance, toys or other privileges item. Prior to the intervention, 7.4% of parents (2 parents) reported withholding allowance, toys, or other privileges on a weekly basis while 22.2% (6 parents) reported doing this on a weekly basis post-intervention. When it came to how often the parent made the child apologize, 18.5% of parents (5 parents) reported doing this several times a week prior to the

Table 11

Frequencies for Pre and Post Non-Physical Forms of Punishment Items

Outcomes of Interest	Pre n (%)	Post n (%)
Total Non-Physical Forms of Punishment Score Items		
How often take away allowance, toys, or privileges		
Never	7(25.9)	2(7.4)
A few times a month (2-3 times a month)	10(37.0)	9(33.3)
Weekly (1-2 times a week)	3(11.1)	7(25.9)
Several times a week (3-4 times)	6(22.2)	6(22.2)
Daily (5 or more times a week)	1(3.7)	2(7.4)
Two or more times a day	0	1(3.7)
Total	27	100.0
How often send child to bed without a meal		
Never	27(100.0)	27(100.0)
A few times a month (2-3 times a month)	0	0
Weekly (1-2 times a week)	0	0
Several times a week (3-4 times)	0	0
Daily (5 or more times a week)	0	0
Two or more times a day	0	0
Total	27	100.0
How often withhold allowance, toys, other privileges		
Never	10(37.0)	9(33.3)
A few times a month (2-3 times a month)	11(40.7)	7(25.9)
Weekly (1-2 times a week)	2(7.4)	6(22.2)
Several times a week (3-4 times)	3(11.1)	4(14.8)
Daily (5 or more times a week)	1(3.7)	1(3.7)
Two or more times a day	0	0
Total	27	100.0
How often ground child or restrict activities		
Never	20(74.1)	20(74.1)
A few times a month (2-3 times a month)	3(11.1)	2(7.4)

Weekly (1-2 times a week)	2(7.4)	2(7.4)
Several times a week (3-4 times)	2(7.4)	3(11.1)
Daily (5 or more times a week)	0	0
Two or more times a day	0	0
Total	27	100.0
How often give child extra chores		
Never	23(85.2)	21(77.8)
A few times a month (2-3 times a month)	3(11.1)	4(14.8)
Weekly (1-2 times a week)	1(3.7)	2(7.4)
Several times a week (3-4 times)	0	0
Daily (5 or more times a week)	0	0
Two or more times a day	0	0
Total	27	100.0
How often make child do something to make up for misbehaviour		
Never	19(70.4)	19(70.4)
A few times a month (2-3 times a month)	8(29.6)	4(14.8)
Weekly (1-2 times a week)	0	3(11.1)
Several times a week (3-4 times)	0	1(3.7)
Daily (5 or more times a week)	0	0
Two or more times a day	0	0
Total	27	100.0
How often make child apologize		
Never	0	1(3.7)
A few times a month (2-3 times a month)	8(29.6)	5(18.5)
Weekly (1-2 times a week)	2(7.4)	3(11.1)
Several times a week (3-4 times)	5(18.5)	9(33.3)
Daily (5 or more times a week)	4(14.8)	8(29.6)
Two or more times a day	8(29.6)	1(3.7)
Total	27	100.0
How often put child in time-out or send to their room		
Never	5(18.5)	3(11.1)
A few times a month (2-3 times a month)	7(25.9)	6(22.2)

Weekly (1-2 times a week)	6(22.2)	7(25.9)
Several times a week (3-4 times)	8(29.6)	6(22.2)
Daily (5 or more times a week)	1(3.7)	4(14.8)
Two or more times a day	0	1(3.7)
Total	27	100.0

intervention while 33.3% (9 parents) reported doing so post-intervention.

To examine mean differences in pre and post-test scores, Wilcoxon signed-rank tests were conducted for each pair of items (Table 12). Scores increased pre- to post-intervention only for the “Make the child apologize” item but this increase was not statistically significant ($Z = -0.84, p = 0.40$). For the item with the previously noted floor effect (send child to bed without a meal), scores did not change pre- to post-intervention. For all remaining items, pre- to post-test scores decreased but the difference was statistically significant only for the “Take away allowance, toys, or privileges item, $Z = -2.11, p = 0.04$. That is, there was a significant increase for this item from a few times a month pre-intervention ($M=4.59$) to weekly post-intervention ($M=4.00$). This increase is seen in the frequency analysis of this item (Table 11). While the proportion of parents in the “Never” and “A few times a month” categories decreased pre- to post-intervention, the proportion of parents in the “Weekly,” “Daily,” and “Two or more times a day” categories increased post-intervention (Table 11).

Hypothesis three: Parents’ use of non-punitive parenting responses will increase from pre- to post-intervention. Table 7 provides the results of the paired samples t-test on non-punitive parenting practices (explain/teach, diversion, reward, monitoring, withdraw attention while problem behaviour occurs) before and after attending the Triple P parenting sessions. There was no statistically significant difference in the total use of non-punitive parenting responses pre and post-intervention ($M=2061.33, M=1977.48$) for a one tailed test at the 0.05 level of significance, $t(26) = 0.55, p=0.29$. Results of the paired samples t-test using the simple rating scale were similar: There was no statistically significant difference in the total use of non-punitive parenting responses pre and post-intervention ($M=23.70, M=23.81$) for a one tailed test at the 0.05 level of significance, $t(26) = -0.10, p=0.46$ (Table 8).

A frequency analysis of the non-punitive parenting items revealed that for all but one

Table 12

Results of Wilcoxon Signed Rank Test Comparing Non-Physical Forms of Punishment Items Pre and Post Intervention

Variables	Pre	Post	Zscore	p
	n	n		
How often take away allowance, toys, or privileges	Mean (SD) (n=27) 4.59 (1.22)	Mean (SD) (n=27) 4.00 (1.24)	-2.11	0.04
How often send child to bed without a meal	(n=27) 6.00 (0.00)	(n=27) 6.00 (0.00)	0.00	1.00
How often withhold allowance, toys, other privileges	(n=27) 4.96 (1.13)	(n=27) 4.70 (1.20)	-1.37	0.17
How often ground child or restrict activities	(n=27) 5.52 (0.94)	(n=27) 5.44 (1.05)	-0.71	0.48
How often give child extra chores	(n=27) 5.81 (0.48)	(n=27) 5.70 (0.61)	-1.00	0.32
How often make child do something to make up for misbehaviour	(n=27) 5.70 (0.47)	(n=27) 5.52 (0.85)	-1.22	0.22
How often make child apologize	(n=27) 2.93 (1.64)	(n=27) 3.22 (1.28)	-0.84	0.40
How often put child in time-out or send to their room	(n=27) 4.26 (1.20)	(n=27) 3.81 (1.36)	-1.65	0.10

item (where scores stayed the same for each category), there were small changes pre- to post-intervention for various item categories (see Table 13). For instance, prior to the intervention, 29.6% of parents (8 parents) reported showing their children the right thing to do on a daily basis while 37% (10 parents) reported doing this after the intervention. Similarly, 11.1% of parents (3 parents) indicated they used praise with their children several times a week prior to the intervention while 22.2% (6 parents) reported doing so after the intervention. Prior to the intervention, 14.8% of parents (4 parents) reported checking on their children to see if they were misbehaving on a daily basis while 22.2% (6 parents) reported doing so after the intervention.

To further examine parental responses to the non-punitive scale items pre- to post-intervention, Wilcoxon signed-rank tests were conducted for each pair of items. As Table 14 indicates, pre and post-intervention mean scores remained the same only for two items (give child money and tell child you were watching/checking to see if they did something). For all remaining items, pre-to post-test scores increased or decreased. The difference in pre- to post-test scores was only statistically significant for the explain rules item, $Z = -2.59$, $p = 0.01$. That is, there was a significant increase for this item from several times a week (3 to 4 times per week) pre-intervention ($M=2.74$) to daily (5 or more times a week) post-intervention ($M=1.96$).

International Parenting Survey Canada (IPS-C) Results

Univariate descriptive analysis. The descriptive analysis of all predictor variables of interest for this component of the study (child age, child gender, and child behavioural problems; parent age, parent level of education, parent attendance at religious gatherings in the past month, parent participation in parent education program; family type, family size, employment status, and income adequacy) is provided in Chapter 4 under the section International Parenting Survey-Canada Sample and in Table 3. In most cases, the distributions of the data on the predictor variables were highly skewed. For example, 60.0% of the target children were in the low

Table 13

Frequencies for Pre and Post Non-Punitive Parenting Items

Outcomes of Interest	Pre n (%)	Post n (%)
Total Non-Punitive Parenting Responses Score Items		
How often explain rules		
Never	1(3.7)	0
A few times a month (2-3 times a month)	3(11.1)	0
Weekly (1-2 times a week)	6(22.2)	2(7.4)
Several times a week (3-4 times)	3(11.1)	3(11.1)
Daily (5 or more times a week)	6(22.2)	14(51.9)
Two or more times a day	8(29.6)	8(29.6)
Total	27	100.0
How often show/demonstrate right thing to do		
Never	0	0
A few times a month (2-3 times a month)	2(7.4)	1(3.7)
Weekly (1-2 times a week)	3(11.1)	3(11.1)
Several times a week (3-4 times)	10(37.0)	10(37.0)
Daily (5 or more times a week)	8(29.6)	10(37.0)
Two or more times a day	4(14.8)	3(11.1)
Total	27	100.0
How often deliberately not pay attention when child misbehaved		
Never	3(11.1)	7(25.9)
A few times a month (2-3 times a month)	11(40.7)	10(37.0)
Weekly (1-2 times a week)	6(22.2)	3(11.1)
Several times a week (3-4 times)	6(22.2)	7(25.9)
Daily (5 or more times a week)	1(3.7)	0
Two or more times a day	0	0
Total	27	100.0
How often let this child misbehave so they'd have to deal with results		

Never	17(63.0)	16(59.3)
A few times a month (2-3 times a month)	5(18.5)	7(25.9)
Weekly (1-2 times a week)	3(11.1)	1(3.7)
Several times a week (3-4 times)	2(7.4)	3(11.1)
Daily (5 or more times a week)	0	0
Two or more times a day	0	0
Total	27	100.0
How often praise child		
Never	1(3.7)	0
A few times a month (2-3 times a month)	2(7.4)	2(7.4)
Weekly (1-2 times a week)	4(14.8)	2(7.4)
Several times a week (3-4 times)	3(11.1)	6(22.2)
Daily (5 or more times a week)	9(33.3)	10(37.0)
Two or more times a day	8(29.6)	7(25.9)
Total	27	100.0
How often give child money or other things for stopping misbehaving or for behaving well		
Never	14(51.9)	11(40.7)
A few times a month (2-3 times a month)	5(18.5)	8(29.6)
Weekly (1-2 times a week)	1(3.7)	1(3.7)
Several times a week (3-4 times)	5(18.5)	7(25.9)
Daily (5 or more times a week)	1(3.7)	0
Two or more times a day	1(3.7)	0
Total	27	100.0
How often check on this child so you could tell them they were doing a good job		
Never	0	1(3.7)
A few times a month (2-3 times a month)	1(3.7)	1(3.7)
Weekly (1-2 times a week)	3(11.1)	0
Several times a week (3-4 times)	5(18.5)	7(25.9)
Daily (5 or more times a week)	11(40.7)	14(51.9)
Two or more times a day	7(25.9)	4(14.8)
Total	27	100.0

How often tell child you were watching/checking to see if they did something

Never	10(37.0)	10(37.0)
A few times a month (2-3 times a month)	9(33.3)	9(33.3)
Weekly (1-2 times a week)	3(11.1)	3(11.1)
Several times a week (3-4 times)	4(14.8)	4(14.8)
Daily (5 or more times a week)	1(3.7)	1(3.7)
Two or more times a day	0	0
Total	27	100.0

How often check on child to see if misbehaving

Never	4(14.8)	5(18.5)
A few times a month (2-3 times a month)	5(18.5)	5(18.5)
Weekly (1-2 times a week)	3(11.1)	3(11.1)
Several times a week (3-4 times)	6(22.2)	6(22.2)
Daily (5 or more times a week)	4(14.8)	6(22.2)
Two or more times a day	5(18.5)	2(7.4)
Total	27	100.0

How often give child something else they might like to do instead of what they were doing wrong

Never	4(14.8)	3(11.1)
A few times a month (2-3 times a month)	3(11.1)	4(14.8)
Weekly (1-2 times a week)	2(7.4)	6(22.2)
Several times a week (3-4 times)	11(40.7)	7(25.9)
Daily (5 or more times a week)	3(11.1)	7(25.9)
Two or more times a day	4(14.8)	0
Total	27	100.0

Table 14

Results of Wilcoxon Signed Rank Test Comparing Non-Punitive Parenting Items Pre and Post-Intervention

Variables	Pre	Post	Zscore	p
	n	n		
	Mean (SD)	Mean (SD)		
How often explain rules	(n=27) 2.74 (1.56)	(n=27) 1.96 (0.85)	-2.59	0.01
How often show/demonstrate right thing to do	(n=27) 2.67 (1.11)	(n=27) 2.59 (0.97)	-0.35	0.72
How often deliberately not payed attention when child misbehaved	(n=27) 4.33 (1.07)	(n=27) 4.63 (1.15)	-1.35	0.18
How often let this child misbehave so they'd have to deal with results	(n=27) 5.37 (0.97)	(n=27) 5.33 (1.00)	-0.30	0.76
How often praise child	(n=27) 2.48 (1.45)	(n=27) 2.33 (1.18)	-0.59	0.55
How often give child money or other things for stopping misbehaving or for behaving well	(n=27) 4.85 (1.51)	(n=27) 4.85 (1.23)	-0.09	0.93
How often check on this child so you could tell them they were doing a good job	(n=27) 2.26 (1.10)	(n=27) 2.37 (1.12)	-0.34	0.74
How often tell child you were watching/checking to see if they did something	(n=27) 4.85 (1.20)	(n=27) 4.85 (1.20)	-0.06	0.95
How often check on child to see if misbehaving	(n=27) 3.41 (1.74)	(n=27) 3.67 (1.64)	-0.70	0.48

How often give child something else they might like to do instead of what they were doing wrong	(n=27)	(n=27)		
	3.33 (1.60)	3.59 (1.34)	-0.79	0.43

category of behaviour problems while another 36.6% were in the moderate category. The majority of parents had a university or college degree (82.8%), had not attended a religious gathering in the past month (69.1%), had not participated in any parent education programs (69.4%), were working full time (55.1%), and indicated there had not been a time in the past year when they could not meet their essential expenses (79%). Despite this skewness, the sample sizes in the other categories of these variables were large (Table 3). Only two variables (child behaviour problems and family size) had very few cases in some of their categories (e.g., number of cases ranging from 2 to 65).

The distribution of the data on the outcome variable was also highly skewed. The majority of parents were in the low category of coercive parenting (74.7%) and very few parents (1.1%) were in the high category (see Table 15). On each item describing a typical behaviour, fewer than 10% of parents indicated that it was true “very much.” Approximately 24% of parents indicated they agreed “a little” with the statement: “I spank or smack my child when they misbehave.” Although the sample size in the high category of coercive parenting was very small (25 cases), the sample sizes in the other categories of this variable (moderate and low category of coercive parenting) were large. Despite the skewness of the dependent and independent variables, linear regression was used as: (1) the sample sizes in most categories of these variables were large, (2) linear regression has been found to perform well in large samples (500 observations or more) from very non-normal data (Lumley, Diehr, Emerson, & Chen, 2002), and (3) when these variables were used to examine the normal probability plot, a graphical technique for assessing whether or not a dataset is approximately normally distributed, an approximate straight line was observed indicating the data were approximately normally distributed. In large datasets such as the IPS-C dataset, statistical methods rely on the Central Limit Theorem which states that the average of a large number of independent variables will be approximately normally distributed

Table 15.

Frequencies for Coercive Parenting Items

Characteristics	n	%
Coercive Parenting Subscale ^a		
0-4	1744	74.8
5-9	565	24.2
10+	25	1.1
Total	2334	100.0
I shout or get angry with my child when they misbehave		
Not at all	293	12.6
A little	1511	64.7
Quite a lot	422	18.1
Very much	108	4.6
Total	2334	100.0
I try to make my child feel bad for misbehaving		
Not at all	1485	63.6
A little	736	31.5
Quite a lot	89	3.8
Very much	24	1.0
Total	2334	100.0
I spank (smack) my child when they misbehave		
Not at all	1739	74.5
A little	557	23.9
Quite a lot	31	1.3
Very much	7	0.3
Total	2334	100.0
I argue with my child about their behaviour/attitude		
Not at all	1148	49.2
A little	959	41.1
Quite a lot	189	8.1
Very much	38	1.6
Total	2334	100.0

I get annoyed with my child			
Not at all	349	15.0	
A little	1720	73.7	
Quite a lot	227	9.7	
Very much	38	1.6	
Total	2334	100.0	

^aCoercive Parenting Subscale of the Parenting and Family Adjustment Scales (PAFAS)

regardless of the underlying distribution (Lumley et al., 2002).

The relationships between the outcome variable and all the predictor variables were examined using chi-square tests of significance (Table 16). Of those children whose parents scored in the high category of coercive parenting (score of 10 or higher), 24% (6 children) were aged 0 to 3 and 44% (11 children) were aged 4 to 7 years. The association between coercive parenting and child age was not significant ($\chi^2 = 11.09, p > .05$), nor was the association between coercive parenting and child sex ($\chi^2 = 0.80, p > .05$). The crosstabulations also showed that of those children whose parents scored in the high category of coercive parenting, 72.0% (18 children) were in the moderate range of the child behavioural problems subscale whereas of those whose parents scored in the low category of coercive parenting, 30.4% (530 children) were in the moderate range of child behaviour problems ($\chi^2 = 211.47, p < .05$).

For the parental factors of interest, only the association between coercive parenting and parent education level was significant ($\chi^2 = 12.25, p < .05$). Of parents who scored in the high category of coercive parenting, the majority (44.0% or 11 parents) had a university or post-graduate degree while of those who scored in the low category of coercive parenting, the majority (52.2% or 902 parents) also had a university or post-graduate degree. For the socio-contextual factors of interest, the association between coercive parenting and employment status was significant ($\chi^2 = 22.94, p < .05$). Of parents who scored in the high category of coercive parenting, 41.7% or 10 parents were not working for pay whereas of parents who scored in the low category of coercive parenting, a minority (21.0% or 346 parents) were not working for pay. The association between coercive parenting and “Could not meet essential expenses during past year” was also significant ($\chi^2 = 10.00, p < .05$). The majority of parents who scored in the high category of coercive parenting (70.8% or 17 parents) and the majority of parents who scored in the moderate category of coercive parenting (77.1% or 424 parents) indicated there had not

Table 16

Child, Parent, and Socio-Contextual Variables by Coercive Parenting

Characteristics	Coercive Parenting Subscale Categories		
	0-4 N (%)	5-9 N (%)	10+ N (%)
Child			
Age (n=2334)			
0-3 yrs	600(34.4)	164(29)	6(24.0)
4-7 yrs	661(37.9)	251(44.4)	11(44.0)
8-11 yrs	378(21.7)	120(21.2)	5(20.0)
12yrs	105(6.0)	30(5.3)	3(12.0)
Total	1744(100.0)	565 (100.0)	25(100.0)
Gender (n=2333)			
Female	838(48.1)	265(47.0)	10(40.0)
Male	906(51.9)	299(53.0)	15(60.0)
Total	1744(100.0)	564(100.0)	25(100.0)
Behavioural Problems Subscale (n=2330)*			
0	4(0.2)	1(0.2)	0(0.0)
1-20	1185(68.0)	216(38.4)	3(12.0)
21-40	530(30.4)	307(54.5)	18(72.0)
41-60	22(1.3)	38(6.7)	4(16.0)
61+	1(0.1)	1(0.2)	0(0.0)
Total	1742(100.0)	563(100.0)	25(100.0)
Parent			
Age (n=2333)			
19 or younger	7(0.4)	0(0.0)	0(0.0)
20-29	236(13.5)	87(15.4)	1(4.0)
30-39	909(52.2)	306(54.2)	13(52.0)
40-49	530(30.4)	154(27.3)	10(40.0)
50-59	53(3.0)	17(3.0)	1(4.0)
60+	8(0.5)	1(0.2)	0(0.0)

Total	1743(100.0)	565(100.0)	25(100.0)
Education (n=2312)*			
High school or less	258(14.9)	114(20.4)	5(20.0)
Trade/Technical college	568(32.9)	191(34.2)	9(36.0)
University or post-graduate degree	902(52.2)	254(45.4)	11(44.0)
Total	1728(100.0)	559(100.0)	25(100.0)
Participation in religious gatherings (n=2301)			
Has attended in past month	517(30.1)	165(29.6)	5(20.8)
Has not attended in past month	1202(69.9)	393(70.4)	19(79.2)
Total	1719(100.0)	558(100.0)	24(100.0)
Participation in parent education programs (n=1978)			
Has participated in at least 1 program	274(18.2)	74(16.2)	7(36.8)
Has not participated in any	1229(81.8)	382(83.8)	12(63.2)
Total	1503(100.0)	456(100.0)	19(100.0)
Socio-contextual			
Family type (n=2332)			
Single parent family	213(12.2)	86(15.2)	3(12.0)
Not a single parent family	1530(87.8)	478(84.8)	22(88.0)
Total	1743(100.0)	564(100.0)	25(100.0)
Family size -number of children in the household (n=2334)			
1-2	1361(78.0)	420(74.3)	23(92.0)
3-4	351(20.1)	134(23.7)	2(8.0)
5-6	27(1.5)	11(1.9)	0(0.0)
7+	5(0.3)	0(0.0)	0(0.0)
Total	1744(100.0)	565(100.0)	25(100.0)
Employment status (n=2213)*			
Not working for pay	346(21.0)	154(28.6)	10(41.7)
Part time	307(18.6)	101(18.7)	7(29.2)
Full time	997(60.4)	284(52.7)	7(29.2)
Total	1650(100.0)	539(100.0)	24(100.0)

During past year, was there a time when

could not meet essential expenses? (n=2277)*

Yes	296(17.4)	126(22.9)	7(29.2)
No	1407(82.6)	424(77.1)	17(70.8)
Total	1703(100.0)	550(100.0)	24(100.0)
After paying for essential expenses, how much money is left over? (n=2307)			
Enough to comfortably purchase most things we want	634(36.8)	195(34.9)	8(32.0)
Enough to purchase only some of things we want	746(43.3)	228(40.9)	10(40.0)
Not enough to purchase much of anything we want	344(20.0)	135(24.2)	7(28.0)
Total	1724(100.0)	558(100.0)	25(100.0)

*p<.05

been a time in the past year when they had not been able to meet essential expenses.

Multivariate analysis. Before conducting the multiple regression analysis, the data were examined to determine whether they met the assumptions for multiple regression. One assumption of multiple regression is that the sample be selected randomly from the population. The sample used for the present study was a convenience sample. However, non-random samples are used widely insofar as caution is exercised when interpreting results or making generalizations (Statistics Canada, 2013). Second, the outcome variable was a continuous variable and predictor variables included interval, ordinal, and dummy variables as is usually required for multiple regression. Third, the regression was conducted with a sample of 2,340 cases. This ensured there were approximately 40 to 50 cases per independent variable (Halli & Rao, 1992).

Fourth, another assumption of multiple regression is that the independent variables are not highly correlated amongst themselves (Halli & Rao, 1992). Before the regression analysis was conducted, intercorrelations among the predictors were examined through a Spearman Rank Order correlation analysis (predictors involved ordinal and continuous variables that were not normally distributed). As seen in Table 17, for the most part, there were small, positive and negative intercorrelations among the predictor variables. There was a moderate positive correlation between child age and parent age ($r_s(2340) = .555, p = 0.00$). This was expected as both variables measure age. As child and parent age were of interest, both variables were kept for the regression analysis. There was also a moderate negative correlation between “In the past 12 months, has there been a time when your household could not meet its essential expenses?” and “After you’ve paid for your essential expenses, how much money is left over?” ($r_s(2272) = -.483, p = 0.00$). The inverse relationship between these variables makes sense given the coding of the variables. The first question noted above was coded such that 0 corresponded to yes and

Table 17

Spearman's Rank Order Correlations Among Predictor Variables

Items	1	2	3	4	5	6	7	8	9
1. Child age	---								
2. Child gender	-.015	---							
3. Child behaviour problems	-.070**	.004	---						
4. Parent age	.555**	-.008	-.069**	---					
5. Parent education	.020	-.013	-.071**	.224**	---				
6. Parent religious attendance	.043*	-.004	-.040	.060**	.055**	---			
7. Parent participation parenting program	-.052*	-.009	.111*	-.036	-.123**	.015	---		
8. Family type	.058**	.011	.068**	-.029	-.162**	-.033	.110**	---	
9. Family size (no. of children)	.067**	.033	-.014	.064**	.016	.101**	-.022	-.123**	---

Items	1	2	3	4	5	6	7	8	9
10. Employment status	.154**	.012	-.080**	.178**	.265**	-.076**	-.168**	-.035	-.117**
11. Could not meet essential expenses	.046*	.005	-.097**	.098**	.207**	.025	-.087**	-.189**	-.062**
12. Money left after essential expenses paid	-.070**	.005	.131**	-.112**	-.256**	-.006	.075**	.185**	.009
13. Age by Behaviour problem interaction	.679**	-.001	.636**	.350**	-.027	-.003	.031	.091**	.035

Items	10	11	12	13
1. Child age	.154**	.046*	-.070**	.679**
2. Child gender	.012	.005	.005	-.001
3. Child behaviour problems	-.080**	-.097**	.131**	.636**
4. Parent age	.178**	.098**	-.112**	.350**
5. Parent education	.265**	.207**	-.256**	-.027
6. Parent religious attendance	-.076**	.025	-.006	-.003
7. Parent participation in parenting program	-.168**	-.087**	.075**	.031
8. Family type	-.035	-.189**	.185**	.091**
9. Family size (number of children)	-.117**	-.062**	.009	.035
10. Employment status	---	.115**	-.140**	.074**
11. Could not meet essential expenses	.115**	---	-.483**	-.030
12. Money left after essential expenses paid	-.140**	-.483**	---	.039
13. Age by Behaviour problem interaction	.074**	-.030	.039	---

Note. N = 2340.

*p < .05. **p < .01

1 corresponded to no. The second question was coded such that 1 corresponded to “Enough that I/we can comfortably purchase most of the things we really want,” 2 corresponded to “Enough that I/we can purchase only some of the things we really want,” and 3 corresponded to “Not enough to purchase much of anything I/we really want.” The inverse relationship suggests that when households meet their essential expenses, there is also enough money to comfortably purchase most things wanted. Given that it was of interest to examine these two variables as predictors of coercive parenting and that these variables were not highly correlated (correlation coefficient was not 0.80 or higher), the two variables were kept for the regression analysis. Finally, as expected, there were moderate to strong positive correlations between the interaction effect and child behaviour problems ($r_s(2333) = .636, p=0.00$) and the interaction effect (child age by child behaviour problem) and child age ($r_s(2333) = .679, p=0.00$). Given that correlation coefficients were not 0.80 or higher and that it was of interest to examine whether it was age, child behaviour problems, or their interaction that predicted the outcome, these variables were kept for the multivariate analysis. When the regression analysis was conducted, tolerance statistics were also examined for all independent variables to ensure there were no multicollinearity problems. Tolerance levels of less than .10 are generally problematic (Halli & Rao, 1992). Tolerance values ranged from .124 to .997. Tolerance values for child age, child behaviour problems, and the interaction effect were .195, .202, and .124 respectively. As there were no tolerance values less than .10, all independent variables were kept for the regression analysis.

Finally, to examine if the data satisfied assumptions of multivariate normality, linearity, and homoscedasticity, a normal probability plot was examined. The normal probability plot showed an approximate straight line. This indicated that all the assumptions related to normality including linearity and homoscedasticity were met.

Table 18 provides the results of the multiple linear regression on coercive parenting. Each model was constructed using the “Enter” method. A three step model was used to enter the variables: In step 1, the parental factors of interest were entered; In step 2, the socio-demographic variables were added; In the final step, the child variables of interest were added. The variables were entered in this fashion to assess the relative contribution of each set of variables added to the model (while holding previously added variables constant) and to identify the model that accounted for the largest percentage of variance in coercive parenting. For each model, model fit statistics, r-square change, and regression coefficients were examined. A final regression model that included the significant predictors from the previous three models was then tested using the “Enter” method to examine how each predictor performed when the variance accounted for by the non-significant predictors was removed.

Model 1: Parental factors. The first model included the parental factors of interest: age, education, engagement in religious gatherings, and participation in parent education programs. The relationship between parental factors and parenting behaviour (coercive parenting) was not significant, $R^2 = .003$, adjusted $R^2 = .001$, $F(4, 1822)=1.56$, $p=.183$. An examination of the p value of the t-test for each predictor reveals that only parent education level significantly contributed to the model. Further, education level had a significant negative regression weight (-.145) indicating that as parent education level decreases, use of coercive parenting strategies increases.

Model 2: Parental and socio-contextual factors. This model included the parental factors of interest in model 1 and the socio-contextual factors of interest: family type, family size, employment status and income inadequacy. The linear combination of all these factors was significantly related to coercive parenting, $R^2 = .013$, adjusted $R^2 = .008$, $F(5, 1817)=3.59$, $p=.003$. When the socio-contextual factors were added to the model, there was a change in the

Table 18

Summary of Multiple Regression Analysis for Variables Predicting Coercive Parenting (N=1827)

Variable	B	SE B	β	p
Step 1				
Model 1: Parent characteristics				.183
Age	.010	.007	.036	.138
Education	-.145	.066	-.053	.028
Religious gatherings attendance	.023	.103	.005	.822
Participation in parent education program	-.097	.124	-.018	.436
Step 2				
Model 2: Parent & Socio-demographic characteristics				.003
Age	.014	.007	.049	.045
Education	-.051	.070	-.019	.465
Religious gatherings attendance	-.002	.104	.000	.987
Participation in parent education program	-.163	.125	-.031	.195
Family type	.054	.144	.009	.707
Family size (number of children)	.006	.052	.003	.902
Employment status	-.177	.061	-.073	.004
Could not meet essential expenses	-.102	.141	-.020	.471
Money left after essential expenses paid	.149	.075	.055	.047
Step 3				
Model 3: Parent, Socio-demographic & Child characteristics				.000
Age	.002	.008	.008	.765
Education	-.011	.064	-.004	.861
Religious gatherings attendance	.045	.094	.010	.633
Participation in parent education program	-.353	.115	-.067	.002

Family type	-.074	.132	-.012	.574
Family size (number of children)	.018	.047	.009	.697
Employment status	-.155	.056	-.064	.005
Could not meet essential expenses	.027	.129	.005	.834
Money left after essential expenses paid	.044	.069	.016	.527
Child age	.038	.031	.059	.223
Child sex	.142	.085	.036	.094
Child behavioural problems	.086	.010	.407	.000
Child age by Child behaviour Interaction	.000	.001	.018	.767

original Rsquare (R^2 change=.010). Therefore, socio-contextual factors offer additional predictive power beyond that contributed by parental factors. Parent age, employment status (“working”) and having money left over after paying for essential expenses significantly contributed to the model ($p=.045$, $p=.004$, and $p=.047$ respectively). Employment status had a significant negative regression weight while parent age and having money left over had significant positive regression weights. This indicates that as parental age increase, parental use of coercive parenting strategies increases. Also, the less parents work and the less money they have left over after paying for essential expenses, the more likely it is they will use coercive parenting strategies. Employment status was the most important predictor followed by having money left over and parent age ($\beta=-.073$, $\beta=.055$, $\beta=.049$ respectively).

Model 3: Parental, socio-contextual, and child factors. Finally, this model included the parental and socio-contextual factors included in the previous two models as well as the child factors of interest: age, sex, child behaviour, and the child age by child behaviour interaction. The linear combination of all these factors was significantly related to coercive parenting, $R^2 = .184$, adjusted $R^2 = .178$, $F(4, 1813)=94.85$, $p=.000$. This model accounted for a significant proportion of the coercive parenting variance (18%). Further, when the child factors were added to the model, there was a change in the original Rsquare (R^2 change=.171). Therefore, child factors offer additional predictive power beyond that contributed by parental factors and socio-contextual factors. Parent participation in parent education programs, employment status, and child behaviour problems significantly contributed to the model ($p=.002$, $p=.005$, $p=.000$ respectively). Child behaviour problems had a significant positive regression weight while employment status and participation in parent education program had significant negative regression weights. This indicates that: (1) parents who participate in parent education programs are less likely to use coercive parenting strategies, (2) the less parents work, the more likely it is

they will use coercive parenting strategies, and (3) as child behaviour problems increase, use of coercive parenting strategies increases. Child behaviour problems was the most important predictor followed by parent participation in parent education programs and employment status ($\beta=.407$, $\beta= -.067$ and $\beta= -.064$ respectively).

Testing significant predictors from previous three models. A model that included the significant predictors from each of the three models (parent education, parent age, parent employment status, parent participation in parenting programs, having money left over after paying for essential expenses, and child behaviour problems) was tested to examine how each predictor performed when the variance accounted for by the non-significant predictors was removed (Table 19). All significant predictors were entered into the model using the “Enter” method. The linear combination of all these factors was significantly related to coercive parenting, $R^2 = .183$, adjusted $R^2 = .181$, $F(6, 1859)=69.60$, $p=.000$. As with the third model tested in the previous section (where parental, socio-contextual, and child factors were included), this model accounted for 18% of the coercive parenting variance. When all significant predictors from the previous three models were added, there was a change in the Rsquare from model 3 to this final model (from R^2 change= .171 to R^2 change= .183 respectively). Parent age, employment status, participation in parent education program, and child behaviour problems significantly contributed to the model ($p= .012$, $p=.008$, $p=.001$, and $p=.000$ respectively). Parent age and child behaviour problems had significant positive regression weights while parent employment status and participation in parent education program had significant negative regression weights. This indicates that: (1) as parent age increases, use of coercive parenting strategies increases, (2) as child behaviour problems increase, use of coercive parenting strategies increases, (3) the less parents work, the more likely it is they will use coercive parenting strategies, and (4) parents who participate in parent education programs are less likely to

Table 19

Summary of Multiple Regression Analysis with Significant Predictors of Coercive Parenting Found in Previous Models (N=1866)

Predictors	B	SE B	β	p
				0.00
Parent education	-.040	.062	-.015	.520
Parent age	.016	.006	.055	.012
Parent employment status	-.143	.054	-.059	.008
Money left after essential expenses paid	.016	.060	.006	.784
Parent participation in parent education program	-.373	.113	-.071	.001
Child behaviour problems	.089	.005	.421	.000

use coercive parenting strategies. Child behaviour problems was the most important predictor followed by parent participation in parent education programs and employment status ($\beta=.421$, $\beta= -.071$ and $\beta= -.059$ respectively).

Multivariate analysis summary. For each of the models constructed, regression weight values and significance levels changed as a function of when variables were entered into the model and what other variables were present. That is, some variables that were significant in the first model were not significant in the second model and variables that were significant in the second model were not significant in the third. However, three variables that were significant in the third model were also significant in the final model. Based on the R square change and the regression sum of squares (variance explained by the independent variables), the final model (consisting of all the significant predictors in each of the three models) is the best approach to examining whether parental factors are the strongest predictors of parenting behaviour followed by contextual and child factors. In this model, child behaviour problems, parent participation in parent education programs, parent employment status, and parent age significantly contributed to the model. Based on standardized regression coefficients, child behaviour problems was the most important predictor of coercive parenting followed by parent participation in parent education programs, and parent employment status. This does not support Belsky's (1984) contention that parental factors are the strongest predictors of parenting behaviour followed by contextual factors and child factors. However, two parental factors significantly contributed to the model (parent participation in parent education programs and parent age) as did a socio-contextual factor (employment status) and one child factor (child behaviour problems). Thus, results from the present study are mixed and provide partial support for Belsky's postulate.

Chapter 6: Discussion

In this chapter, findings from the Triple P intervention and the International Parenting Survey-Canada (IPS-C) results will be discussed in light of past research. Following this discussion, the theoretical and practical implications of the findings will be highlighted. Limitations and directions for future research will then be presented. In the last section, concluding comments will be provided.

Triple P Findings

Triple P is an evidence-based program that has been researched extensively. Evidence of the program's efficacy in improving parenting, child behaviour, and parental well-being comes primarily from research that has focused on the more intensive levels of the program. The Seminar Series or Level 2 Triple P has not received much research attention and the link between receiving Triple P parent education and parental use of physical punishment has not been examined. Through the examination of the relationship between parental participation in Level 2 Triple P and parental use of physical punishment, non-physical forms of punishment, and non-punitive parenting strategies, the present study sought to further contribute to the knowledge base on the effectiveness of Level 2 Triple P and to the literature on the impact of positive parenting education on parental use of physical punishment.

Hypothesis one: Physical punishment. Hypothesis one stated that post-intervention, compared to pre-intervention, parents would use physical punishment less frequently. The results of the present study regarding this hypothesis must be interpreted with caution. Although post-intervention, compared to pre-intervention, results indicated that parents reported using physical punishment less frequently, these results are based on only one scale item. That is, physical punishment decreased on only the shaking item. There were floor effects at pre-test on two scale items (hitting with objects, washing the child's mouth out with soap) and it was therefore

not possible to find a decrease on these items at post-test. The analysis was therefore limited to the remaining two items (shaking and spanking). The mean frequency of spanking did not decrease post-intervention, and in fact increased slightly. Therefore, this hypothesis was only weakly supported.

This study is the first to examine the link between receiving Level 2 Triple P parent education and parental use of physical punishment. As physical punishment decreased on only one of the four physical punishment scale items, the usefulness of the Seminar Series in reducing parental use of physical punishment as defined in this study (shaking, spanking, hitting with objects, washing the child's mouth out with soap) cannot be ascertained and needs to be further explored. In addition to the floor effects at pre-test on two of the four physical punishment scale items, there are two other possible explanations for the lack of a significant decrease in overall use of physical punishment pre- to post-intervention. One explanation might be the measures used in this study. The Dimensions of Discipline Inventory's Corporal Punishment scale is designed to assess changes in specific, goal-directed behaviours (Straus & Fauchier, 2007). Studies that have found the Triple P seminars to be effective in reducing coercive parenting have used instruments that measure parenting styles or global dimensions or categorizations such as permissive discipline or authoritarian discipline (Sumargi et al., 2014; Sanders et al., 2009). Another explanation may be that three seminars may not be sufficient to encourage parents to use strategies other than physical punishment as defined in the present study.

Hypotheses two and three: Non-physical forms of punishment and non-punitive parenting responses. Hypothesis 2 stated that post-intervention, compared to pre-intervention, parents would use non-physical forms of punishment (withholding of privileges, penalties, and time-out) more frequently. Although there was no significant difference in the

overall use of non-physical forms of punishment pre and post-intervention, there was a significant increase pre- to post-intervention in mean frequency for the “Taking away allowance, toys, and privileges” item. That is, there was a significant increase on the reported use of this item from a few times a month pre-intervention ($M=4.59$) to weekly post-intervention ($M=4.00$). Hypothesis 3 stated that post-intervention, compared to pre-intervention, parents would use non-punitive parenting strategies (explain/teach, diversion, reward, monitoring, withdraw attention while problem behaviour occurs) more frequently. Although there was no significant difference in the overall use of non-punitive parenting practices pre and post-intervention, there was a significant increase on the reported use of the “Explaining rules” item from several times a week (3 to 4 times a week) pre-intervention ($M=2.74$) to daily (5 or more times a week) post-intervention ($M=1.96$). Therefore, hypotheses two and three were only weakly supported.

Results regarding total use of non-physical forms of punishment and non-punitive parenting responses pre and post-intervention, must be interpreted with caution given the significant increase on frequency of use of individual scale items pre-to post-intervention and the skewed distribution of the data on scale items. For the non-physical forms of punishment scale items, there was a significant increase on the reported use of the “Taking away allowance, toys, and privileges” item pre- to post-intervention. There was also a floor effect on the “Send child to bed without a meal” item which did not allow for finding an increase on this item at post-test. For three scale items (“Ground child or restrict activities,” “Give extra chores,” “Make child do something to make up for misbehaviour”), the majority of parents reported never using these strategies pre and post-intervention. These items may be more applicable to older children and the majority of parents in the sample (85.1%) had children between the ages of 1 to 4 years of age. For all remaining non-physical forms of punishment scale items, the majority of parents

reported using these strategies pre-intervention leaving small room for change in the predicted direction.

For the non-punitive parenting scale items, there was a significant increase on the reported use of the “Explaining rules” item pre- to post-intervention. For one item (“Tell child you were watching/checking to see if they did something”), scores stayed the same for each category pre- to post-intervention. The scores on other scale items were skewed. For the item “How often let the child misbehave so they have to deal with the results” the majority of parents reported never using this strategy pre and post-intervention. This item may be more applicable to older children and as noted above, the majority of parents in the sample (85.1%) had children between the ages of 1 and 4 years. For the “How often give child money or other things for stopping misbehaving or for behaving well” item, the majority of parents reported never using this strategy pre and post-intervention. Whether this was the result of the double barrel nature of this question which could be confusing or the inapplicability of the “Give child money” part of the item to a sample of parents of young children requires further investigation. For all remaining non-physical forms of punishment scale items, the majority of parents reported using these strategies pre-intervention leaving small room for change in the predicted direction. It is interesting to note that a minority of parents reported praising their children two or more times a day at pre-test (29.6% or 8 parents) and at post-test (25.9% or 7 parents). It could be that this sample of parents: (1) decided to try using another strategy learned following the seminars, (2) may experience frustration during the disciplinary interaction and forget to use praise to encourage children to continue to engage in positive behaviours, (3) may need a longer time period (longer than the two week assessment period post-intervention) to implement other strategies learned.

This study is the first to examine the link between receiving Level 2 Triple P and non-

physical forms of punishment and non-punitive parenting strategies. The previous studies that have focused on Level 2 Triple P have examined the effect of Level 2 on global measures of “dysfunctional” parenting styles (verbosity, authoritarian, permissive parenting) or global measures of parenting practices that include effective (e.g., using consequences that fit the situation, ignoring the problem, telling the child to stop misbehaving) and ineffective (those associated with coercive discipline) strategies for managing misbehaviour. The lack of a significant increase in the overall use of non-physical forms of punishment and overall use of non-punitive parenting responses pre- to post-intervention highlights the need to further examine these hypotheses.

The finding that parental use of “Taking away allowance, toys, and privileges” and “Explaining rules” significantly increased pre- to post-intervention is consistent with research on targeted Triple P that suggests the program is effective in increasing use of non-physical parental responses (e.g., taking away allowance or toys) and use of positive parenting strategies such as explaining rules (De Graaf, Speetjens, Smit, de Wolf, & Tavecchio, 2008a; Hahlweg, Heinrichs, Kuschel, & Feldmann, 2008; McCormick et al. 2014; Nowak & Heinrichs, 2008; Thomas & Zimmer-Gembach, 2007; UNODC, 2009). For example, a recent meta-analysis that reviewed 101 Triple P studies encompassing 33 years of research confirms that the program causes positive changes in parenting skills ($d=0.578$) and that various delivery methods (group, online, self-directed) lead to improvements in parent outcomes (Sanders et al., 2014). Similarly, a study on targeted Triple P (Level 4) that examined not only dysfunctional (verbosity, authoritarian) but positive parenting styles (positive and encouraging parental behaviour) found that Triple P mothers rated their parenting behaviour as significantly improved compared to those in the waitlist comparison group (Hahlweg et al., 2008). However, it should be noted that in targeted Triple P (higher levels of Triple P), there is more direct contact with parents than in the Seminar

Series. The finding that overall use of non-physical forms of punishment (withholding of privileges, penalties, and time-out) and non-punitive parenting strategies (explain/teach, diversion, reward, monitoring, withdraw attention while problem behaviour occurs) did not significantly change pre- to post-intervention is also consistent with findings from a study that implemented all 5 levels of Triple P and found no significant difference pre- to post-intervention in total use of positive parenting strategies such as using consequences that fit the situation, giving rewards or descriptive praise, and calling a family meeting to work out a solution (Sanders et al., 2008).

In addition to the skewed distributions of scores on scale items and floor effects, there are two other possible explanations for the lack of significant increase in overall use of non-physical forms of punishment and non-punitive parenting strategies pre-to post-intervention. First, it might be that two weeks post-intervention may not be enough time for parents to consolidate the information presented to produce significant changes. Parents may need a longer time period to implement the parenting strategies learned. Second, it might be that “light touch” interventions such as the seminar series may not be enough to get parents to use non-punitive strategies. Parents may require a more intensive program variant or need more discussion time, examples of how to implement the strategies, and even additional support in the implementation of the strategies (Sanders et al., 2008; Sumargi et al., 2014).

International Parenting Survey-Canada Findings

Belsky’s (1984) model proposes that parental behaviour is influenced by child, parent, and socio-contextual factors. Belsky further theorizes that parenting is most influenced by parental factors followed by contextual and child factors. Although his model stimulated much of the research on the determinants of parental behaviour over the last two decades, very little research attention has been given to examining Belsky’s (1984) proposition regarding the

primary influence of parental factors on parenting behaviour. Through the examination of this theoretical proposition, the present study sought to contribute to the knowledge base regarding the relative importance of parental, contextual, and child factors to parenting behaviour. Hypothesis 4 stated that, as postulated by Belsky (1984), parental factors would be the strongest predictors of parenting behaviour followed by contextual and child factors. Hypothesis 4 was partially supported.

Belsky's (1984) theoretical proposition. To examine hypothesis 4, a series of regression models were evaluated. A three step model was first constructed. The order of entry of the predictor variables was predetermined based on Belsky's (1984) proposition that parenting is most influenced by parental factors followed by contextual and child factors. The relative contribution of each set of variables was assessed as each set of variables was added to the model. The significant predictors from each of the three models were then included and tested in a final model. Based on the R square change and the regression sum of squares (variance explained by the independent variables), this model was identified as the best approach for examining Belsky's (1984) proposition. Factors included in the final model were significantly related to coercive parenting and explained 18% of the variance. This suggests that additional factors not studied here account for most of the variability in coercive parenting.

The findings of the present study provide some support for Belsky's assertion that parenting is influenced by three domains: child, parent, and socio-contextual characteristics. Child behaviour problems, parent participation in parent education programs, parent age, and parent employment status explained a significant portion of the variance in coercive parenting. Belsky's theoretical proposition that parental factors have the strongest influence on parenting behaviour followed by contextual and child factors was only partially supported. Based on standardized regression coefficients, child behaviour problems was

the most important predictor of coercive parenting followed by parent participation in parent education programs, and parent employment status. This differs from Belsky's (1984) prediction that the most influential predictor of parenting is parent characteristics and the least influential is the child's characteristics. However, participation in parent education programs and parent age significantly contributed to the model as did parent employment status, and child behaviour problems. Thus, findings from the present study are mixed and provide partial support for Belsky's (1984) contention that parental factors are the strongest predictors of parenting behaviour.

The partial support for Belsky's (1984) postulate found in the present study supports findings from another study that found parental factors to have the strongest influence on parenting behaviour (McKenry et al., 1991). However, the present study's finding is divergent from many more studies that have found no support for Belsky's (1984) contention (Bogenschneider et al., 1997; McCurdy, 2005; Van Bakel & Riksen-Walravens, 2002). There are three possible explanations for the difference in findings obtained in this study and the majority of studies that have examined Belsky's (1984) postulate. First, differences in samples and analyses could explain the discrepancy between findings. In the present study, Belsky's (1984) theoretical proposition was examined with a sample of Canadian parents who had a child between the ages of 0 and 12 (the majority of children were between the ages of 4 and 7 years). Studies that have found no support for Belsky's (1984) postulate examined his assertion with U.S. parents of adolescents, U.S. mothers of newborns, and Dutch parents of 15 month old infants (Bogenschneider et al., 1997; McCurdy, 2005; Van Bakel & Riksen-Walraven, 2002 respectively). In the present study, the statistical analysis used to examine Belsky's postulate was multiple regression. A three step model was first constructed where the order of entry of the predictor variables was predetermined based on Belsky's (1984) proposition (model 1 included

the parent variables; model 2 included the parent and socio-contextual variables; and model 3 included the parent, socio-contextual, and child variables of interest). Model fit statistics, R-square change, and regression coefficients were examined for each model. A final regression model that included the significant predictors from the three step model was then examined to see how each predictor performed when the variance accounted for by the non-significant predictors was removed. Studies that have found no support for Belsky's (1984) postulate have examined his contention by (1) identifying the most influential characteristics in each domain (child, parent, socio-contextual) through multiple regression, labeling parent-infant dyads as strong or weak in a given domain depending on whether they scored above or below the median on the most influential characteristics in that domain, and examining differences among the dyads through analysis of variance (Van Bakel & Riksen-Walraven, 2002), (2) using a three step multiple regression (model 1 included maternal characteristics, model 2 included maternal and child characteristics, and model 3 included maternal, child, and the socio-contextual characteristics of interest) where the order of entry of the predictors differed from that used in the present study and comparing the significance of the F change for models 2 and 3 (McCurdy, 2005), and (3) using a series of multiple regression models where the order of entry of the predictors was predetermined based on Belsky's proposition and examining the contribution of an additional domain: the goodness-of-fit between parent and child characteristics. In that study (Bogenschneider et al., 1997), models 1 and 2 included parent characteristics, model 3 included socio-contextual characteristics, model 4 included child characteristics, and model 5 included parent-child stress as a measure of the goodness of fit between parent and child characteristics. Standardized regression coefficients were examined to determine which predictors were the most important sources of influence.

Second, the difference between findings from the present study and those that have

found no support for Belsky's (1984) postulate may be related to the outcomes of interest studied. For example, in the present study, influences on coercive parenting were examined. Studies that have found no support for Belsky's (1984) postulate have examined influences on perceived parenting competence (Bogenschneider et al., 1997), parenting attitudes (McCurdy, 2005), and overall parental interactive behaviour where behaviours of interest were: providing emotional support, showing respect for the child's autonomy, limit setting, quality of instructions, and hostility (Van Bakel & Riksen-Walraven, 2002).

Finally, differences in findings may be related to the predictors examined. The present study examined the predictive power of child age, child sex, child behaviour problems, parent age, parent education, parent participation in parent education programs, parent attendance at religious gatherings, family type, family size, parent employment status, and income inadequacy. Previous studies have examined the predictive power of: (1) adolescent openness to socialization by the parent, parent education, parent age, family structure, parental sensitivity, partner support, support from the social network, work hours, and parent-child stress (Bogenschneider et al., 1997), (2) neonatal risk index, maternal psychosocial functioning, maternal employment change, maternal public assistance change, maternal increased financial difficulties, and informal and formal support (McCurdy, 2005), and (3) child activity level, child anger proneness, child social fearfulness, child interest/persistence in various activities, parental attachment security, parental ego-resiliency, parental education, parental intelligence, network support, and partner support (Van Bakel & Riksen-Walraven, 2002). It is possible that the primacy of a specific domain (child, parent, socio-contextual) may vary depending on the population under study, the parenting outcome of interest, and the predictors examined (McCurdy, 2005).

Although the present study found partial support for Belsky's postulate, further empirical

testing of his proposition is needed to validate this finding. Whether child characteristics such as the ones found to be most important in the present study (degree of child behaviour problems) are the most influential determinants of parenting behaviour requires further investigation.

Predictors of coercive parenting. The present study used Belsky (1984) Determinants of Parenting model as an overarching framework to examine predictors of coercive parenting. It was predicted that parental factors would be the strongest predictors of parenting behaviour followed by contextual factors and child factors. The results were mixed; based on standardized beta coefficients, child behaviour problems was the strongest predictor but two parent characteristic (participation in parent education programs and parent age) significantly contributed to the model. In the present study, child behaviour problems, participation in parent education program, parent employment status, and parent age predicted coercive parenting. The findings suggest that (1) as child behaviour problems increase, use of coercive parenting strategies increases, (2) parents who participate in parent education programs are less likely to use coercive parenting strategies, and (3) the less parents work, the more likely it is they will use coercive parenting strategies, and (4) as parent age increases, use of coercive parenting strategies increases.

In the following sections, the present study's findings regarding the predictors of interest are discussed in light of research on predictors of one type of coercive parenting - parental use of physical punishment. The discussion focuses on physical punishment for two reasons. First, in the present study, the focus was on specific, goal-directed parenting behaviours and physical punishment was the primary outcome of interest. As a result, the literature review for this study focused primarily on predictors of physical punishment. Second, physical punishment has received the most research attention compared to the other coercive parenting responses studied in this study: arguing with the child, making the child feel bad, getting annoyed with the child,

and shouting or getting angry (Dasen & Mishra, 2000; Rogoff, 2003; Lansford, 2010; Socolar, 1997; Socolar & Stein, 1996). Therefore, physical punishment was identified as a marker of coercive parenting.

Child characteristics. The finding that as child behaviour problems increase, use of coercive parenting strategies increases adds to the literature that has reached similar conclusions (Berlin et al., 2009; Combs-Orme & Cain, 2008; Lee, Taylor, Altschul, & Rice, 2013; McKenzie et al., 2011; Maguire-Jack, Gromoske, & Berger, 2012; Perron et al., 2014). Other findings indicate that externalizing (disruptive, hyperactive, aggressive) behaviours are associated with more parental use of physical punishment (Mulvaney & Mebert, 2007; Gershoff et al., 2012; Grogan-Kaylor & Otis, 2007; MacKenzie et al., 2013; Nicholson et al., 2005; Perron et al., 2011). Frustration or lack of knowledge of alternative strategies may lead parents to use coercive parenting practices in such situations.

Child age did not predict coercive parenting. This finding is divergent from previous findings that pre-schoolers are at greatest risk of receiving physical punishment (Barkin, Scheindlin, Ip, Richardson, Finch, 2007; Bordin et al., 2006; Bradley, Horn, Cheng, Joseph, 2004; Grogan-Kaylor & Otis, 2007; Institut de la Statistique du Québec, 2012; Lansford & Deater-Deckard, 2012; Regalado et al., 2004; Schluter et al., 2007; Tang, 2006). This finding is also divergent from research that has found that physical punishment is used with children of all ages: children who are between the ages of newborn and two years (Schluter et al., 2007; Woodward et al., 2007; Zolotor et al., 2011), pre-schoolers (Institut de la Statistique du Québec, 2012; Lansford & Deater-Deckard, 2012; Perron et al., 2014; Schluter et al., 2007; Woodward et al., 2007), as well as with school-aged and older children (Abolfotouh et al., 2009; Bordin et al., 2008; De Zoysa et al., 2008; Lansford et al., 2010). The lack of predictive power of this variable may be related to the fact that 73% of the children in this study were 7 years of age or

younger. Thus, finding a linear relationship between child age and coercive parenting would be difficult.

In the present study, child gender was not a significant predictor of coercive parenting. This finding is divergent from many studies in which child gender has been linked to parental use of physical punishment with boys being more likely to be physically punished than girls (Alyahri & Goodman, 2008; Abolfotouh et al., 2009; Institut de la Statistique du Québec, 2012; Lee et al., 2011; Zolotor et al., 2011). Whether this finding suggests that norms regarding the use of physical punishment with boys and girls are changing and that today's parents are equally likely to use physical punishment with boys as they are with girls requires further investigation (Mackenzie et al., 2011; Perron et al., 2014).

Parent characteristics. The finding that parents who have participated in parent education programs are less likely to use coercive parenting strategies is not surprising given research linking participation in parent education programs to reductions in parental use of coercive or dysfunctional parenting practices (de Graaf et al., 2008a; Sanders et al., 2008; Sofronoff et al., 2011; Sumargi et al., 2014, Sumargi et al., 2015). Results from a meta-analysis of 63 studies examining the effect of various parent training programs on a wide range of parent and child outcomes also found training programs to be associated with positive changes in parenting skills with small to moderate effects (Lundahl et al., 2005). It may be that by enhancing parents' child development knowledge, parent education programs may help parents better understand their children's behaviours and lead them to become less coercive. It may also be that after attending parent education programs, parents may make concerted efforts to use positive parenting strategies instead of coercive ones.

The finding that as parent age increases, use of coercive parenting strategies increases is divergent from previous findings that have found no relationship between parent age and

parental use of physical punishment (Dietz, 2000, Grogan-Kaylor & Otis, 2007; Perron et al., 2014) and studies that have found higher rates of physical punishment for younger parents (Mackenzie et al., 2011; Regalado et al., 2004, Tang 2006; Woodward et al., 2007; Zolotor et al., 2011). One reason for this difference in findings might be the ages of the children studied. For example, MacKenzie et al. (2011), Regalado et al. (2004), Zolotor et al. (2011), and Wissow (2001) used samples of parents with very young children (birth to 5 yrs) and found that younger parents were more likely to use physical punishment. In the present study, the sample consisted of children from birth to 12 years. Another reason for the difference in findings might be the age of the parents studied. In the present study, approximately 86% of parents were between 30 years of age or older. Studies that have found an association between younger parents and physical punishment have used samples where the majority of parents are 30 years of age or younger (MacKenzie et al., 2011; Wissow, 2001; Woodward et al., 2007; Zolotor et al., 2011).

Parent education did not predict coercive parenting. This finding supports previous research that has found no relationship between parental use of physical punishment and parent education (Giles-Sims et al., 1995; Grogan-Kaylor & Otis, 2007; Regalado et al., 2004; Zolotor et al., 2011). However, this finding is divergent from many more studies that have found higher rates of physical punishment use among parents with lower levels of education (Alyahri & Goodman, 2008; Ateah & Durrant, 2005; Barkin et al., 2007; Culp et al., 1999; Dietz, 2000; Eamon, 2001; Lansford & Deater-Deckard, 2012; Wissow, 2001; Perron et al., 2014; Tang 2006; Wolfner & Gelles, 1993). There are two possible explanations for the lack of association between parent education and coercive parenting found in the present study. First, the majority of the sample (82.8.0%) reported having post-secondary education (college, university, or post-graduate degree). This suggests the majority of parents in this sample may have had knowledge of child development and alternative disciplinary strategies and may not have been using coercive

parenting strategies. The crosstabulation of parent education by the coercive parenting index substantiated this supposition. The majority of parents scored in the low category of coercive parenting. Of those who scored in this category, the majority (85.1%) had post-secondary education. Given the sample's level of education and use of coercive parenting, it is possible that the education variable failed to reliably distinguish between parents who reported using coercive parenting strategies and parents who did not report using coercive strategies. Second, it may also be that the amount of education a parent has or the amount of knowledge of child development and alternative disciplinary strategies parents have may not be as relevant as other factors in the immediate disciplinary encounter (e.g., degree of problematic behaviour or stress being experienced by the parent) in predicting use of coercive parenting strategies.

Finally, taking part in religious gatherings was not a significant predictor of coercive parenting. Although this is the first time frequency of religious gathering participation was examined as a predictor of coercive parenting, this finding is divergent from studies that have found parents affiliated with a biblically conservative orientation (and who would presumably attend church gatherings frequently) are more likely to use physical punishment. There are four possible explanations for this finding. First, differences in the variables used to assess this relationship may explain the discrepancy between findings. Previous studies have asked parents to provide information regarding their religious affiliation. Information about parents' religious affiliation was not readily available in the dataset used in the present study. IPS-C data only collected information regarding how often parents took part in religious gatherings, so that was the variable used. Second, it may be that parents who provided information regarding religious gathering attendance may not have been affiliated with a biblically conservative orientation. A possible absence of parents from conservative fundamentalist religious backgrounds may have contributed to the findings. Third, the fact that the majority of the sample had not attended a

religious gathering (69.1%) in the previous month may have made it difficult to detect associations with this variable. Finally, it may be that frequency of taking part in religious gatherings may not be as important in predicting use of coercive parenting strategies as the religious affiliation of those gatherings and hence of the parents.

Socio-contextual characteristics. The present study found that the less parents work, the more likely it is they will use coercive parenting strategies. That is, unemployed parents are more likely to use coercive parenting strategies. This finding is consistent with studies that have found higher rates of physical punishment use in families where parents are unemployed or have sporadic employment (Giles-Sims et al., 1995; Tang, 2006; Wolfner & Gelles, 1993). This finding also supports research that has found low income parents (Clément et al., 2000; Dietz, 2000), parents experiencing economic stress (Conger et al., 2002; Coyle et al., 2002), and parents living in poverty (Bradley et al., 2001; Eamon, 2001) to be more likely to use physical punishment. There are two possible explanations for the significant association between employment status and coercive parenting. First, it may be that unemployed parents may be spending more time at home with their children. This may increase the opportunity to have conflicts with their children and for parents to exercise their child care role. Second, it may be that unemployed parents may experience anger, frustration, and stress from limited financial resources and may release these negative emotions on their children through use of coercive parenting practices.

Living in a single parent household was not a significant predictor of coercive parenting. This finding is divergent from studies that have found higher levels of physical punishment use in single parent households (Elarab et al., 2007; Clément et al., 2000; Giles-Sims et al., 1995; Loeber et al., 2000; Mahoney et al., 2000). There are three possible explanations for the lack of association between single parent families and coercive parenting found in the present

study. First, in the present sample, the majority of parents had post-secondary education (82.8%) and were working either full time (55.1%) or part-time (17.7%). This suggests that the social disadvantages associated with one parent families (e.g., lack of education and poverty) that are likely to lead to stress and more use of coercive parenting strategies may not have been as salient in the present sample. Second, it could also be that the single parent families in the present sample may not have been using coercive parenting strategies. The crosstabulation of the single parent family variable and the coercive parenting index revealed that of families who scored in the high category of coercive parenting, a minority (12% or 3 families) were single parent families. Third, given that 12.9% of the sample reported living in single parent families, it is plausible that the household variable failed to distinguish between parents who reported using coercive parenting strategies and those who did not.

Family size or number of children in the household was not a strong predictor of coercive parenting. This finding is divergent from a number of studies that have found that the greater the number of children in the family, the more likely it is that parents will use physical punishment (Alyahri & Goodman, 2008; Abolfotouh et al., 2009; Asdigian & Straus, 1997; Clément et al., 2000; Eamon & Zuehl, 2001; Dietz, 2000; Durrant et al., 2004; Fox, 1995; González et al., 2014; Woodward et al., 2007; Xu et al., 2000). There are two possible explanations for the findings obtained. First, the discrepancy between findings may be due to differences in the samples studied. For example, studies that have found a significant association between number of children in the household and parental use of physical punishment have also found parents in larger families to be unemployed, have less education, have low incomes, and experience marital or partner distress (Abolfotouh et al., 2009; Alyahri & Goodman, 2008; Woodward et al., 2007). In the present study, the majority of parents were employed full time (55.1%), had post-secondary education (82.8%), and reported having enough money after paying for essential

expenses (77.9%). Being socially disadvantaged, rather than family size per se, may be associated with more stress which may lead to use of coercive parenting strategies. Second, the majority of parents in the present sample (86.9%) were two parent families. This suggests that the majority of parents in the sample could share parenting responsibilities with a partner. This may have reduced stresses related to not having enough time to monitor all children which may have led to less use of coercive parenting strategies.

Finally, income inadequacy was not a predictor of coercive parenting. In the present study, income inadequacy was measured with two separate questions: “During the past 12 months, has there been a time when your household could not meet its essential expenses?” (Yes or No) and “After you have paid for your essential expenses like food, housing, utilities, child care, and medical care, how much money is left over?” (“Enough to purchase things we want” or “Not enough to purchase much of anything I/we really want”). Having an income that did not allow parents to pay for essential expenses on a given month and an income that did not leave much money left over after paying for essential expenses were not strong predictors of coercive parenting. This finding is divergent from a number of studies that have found high rates of physical punishment use among lower income parents (Bradley et al., 2001; Clément et al., 2000; Dietz, 2000). It might be the case that the variables used in the present study are not good measures for assessing income inadequacy. For example, while it is possible that a parent may not have been able to meet essential expenses on a given month sometime during the previous year or may not have had enough money left over after paying for essential expenses, it is possible that their financial situation could have subsequently changed (got a job or a better paying job etc). Thus, asking parents if there has been a time in the past 12 months when they have not been able to meet household expenses or asking them if they have enough money left over after paying for essential expenses may not give an accurate picture of their current financial

situation. Family income may be a more accurate measure of a parent's financial situation.

Another reason for the difference in findings might be that the effect of income inadequacy on coercive parenting may be salient when parents are experiencing more stress and may be more likely to be aggressive. Parents in the present sample were fairly affluent, came from two parent households (86.9%), had post-secondary education (82.8%), were employed either part-time or full time (72.8%), had enough money to meet essential expenses (79.0%), and had enough money left over after paying for essential expenses to purchase what they wanted (77.9%). In fact, only 1.1 % of parents in the present study's sample scored 10 or higher on the coercive parenting index. The truncated nature of the dependent variable may have made it difficult to detect associations with income inadequacy. Finally, it is also possible that in this sample, factors surrounding the immediate disciplinary encounter (parent frustration with misbehaviour) might be more predictive of disciplinary actions (they are often not consciously chosen).

Implications

Important theoretical and research implications can be derived from the present study. First, this study advances our theoretical understanding of the determinants of parenting by extending Belsky's (1984) framework and including variables not originally included in his model. Consistent with his model, the present findings support Belsky's (1984) three categories of influence on parenting behaviour: child, parent, and socio-contextual factors. Second, the partial support found for Belsky's (1984) theoretical proposition regarding the primacy of parental factors underscores the need for further study and verification of this assertion. Third, the predictors of coercive parenting examined in the present study accounted for a small amount of the variability of coercive parenting. This finding suggests Belsky's (1984) model needs to be expanded to include factors other than those studied here and originally proposed in his

model. For instance, the role of parental expectations, affect and beliefs about the nature of children's behaviour (e.g., attribution of intent, seriousness of misbehaviour) may help us attain a fuller understanding of disciplinary decision making.

Fourth, although other studies have examined Belsky's (1984) theoretical proposition, this is the first research study to date to examine Belsky's (1984) postulate with the specific factors of interest: child (age, gender, behaviour problems), parent (age, education level, parent education program participation, engagement in religious gathering) and socio-contextual (family type, family size, employment status, income adequacy) factors. This is also the first study to examine the relationship between attending Level 2 Triple P and parental use of physical punishment, non-physical forms of punishment, and non-punitive parenting responses. Thus, the findings add to the knowledge base regarding: (1) Belsky's (1984) model and theoretical proposition, (2) effectiveness of Level 2 Triple P among Canadian parents and, (3) the effectiveness of the Seminar Series in reducing parental use of physical punishment. Finally, the fact that physical punishment decreased on only one of the four physical punishment scale items (shaking item) highlights the need to further examine this hypothesis.

Limitations

A number of limitations can be identified for the present study. First, because the study design changed from a randomized controlled trial to a pre-post intervention design, having a comparison group was not possible nor was randomization of participants. Without a comparison group and randomization, statistically controlling for potential confounders (threats to internal validity) that could account for the study's findings was not possible. That is, changes seen from pre- to post-intervention cannot be interpreted to be solely the result of the Triple P seminars. Parents are exposed to various factors outside the seminars (e.g. peer groups, advice from other parents, etc.) that could have contributed to the findings.

Second, as all participants who expressed interest in participating were accepted provided they met inclusion criteria, self-selection bias may have occurred. The sample consisted of parents who were interested in participating, completed all three seminars, and submitted pre and post-intervention data. These parents were also highly educated and with stable financial status. It is therefore important to consider the extent to which the study sample is representative of the parent population. Third, the intervention study's sample was relatively small. Studies with low statistical power have: (1) a low probability of detecting a true effect, (2) a low probability that a statistically significant result reflects a true effect, and (3) an exaggerated estimate of the magnitude of the effect when a true effect is found (Button et al., 2013). Thus, interpretation of study findings and generalizations should be made with caution. Fourth, the study design did not include a follow-up component due to time and cost constraints. Thus, it was not possible to follow parents three or six months post-program completion and assess maintenance of effects over the long-term.

Fifth, parents who attended the seminars completed pre and post-intervention questionnaires that included instruments from the Dimensions of Discipline Inventory (DDI). DDI instruments have been found to have good internal consistency with samples of university students but low internal consistency with samples of parents. Therefore, parents' responses to two items of the DDI were compared to parents' responses to items of a well-validated scale (Parental Responses to Child Misbehavior Revised, PRCM-R). There were statistically significant negative correlations among these items. As explained in Chapter 4, the negative correlations are a function of the coding of these items (PRCM items were coded such that 1 corresponded to "Never" whereas DDI items were coded such that 1 corresponded to "Two or more times a day" or the category indicating most frequent use). Therefore, the negative correlation suggested that as the value of one variable went up, the value of the other variable

also went up. As scale items correlated significantly, DDI data were used to calculate outcomes of interest. Nonetheless, the internal consistency or reliability of the DDI scales should be kept in mind when interpreting study findings. Also, some of the items that make up these scales are double barrel questions. A sample question is: “How often did you spank, slap, smack, or swat this child in the past month?” This affects the interpretation and reliability of the data as it is not possible to know what the parent was rating.

Sixth, the distributions of the data collected through the Triple P intervention component of this study were highly skewed. For some scale items, parents reported never using these strategies pre and post-intervention. For other items, the majority of parents reported already using those strategies before the intervention began. The skewed distribution of scores at pre-test left little room for change in the predicted direction. There were also floor effects at pre-test on scale items used to measure the outcomes of interest (e.g., physical punishment, non-physical forms of punishment). These items were therefore not useful for testing the hypotheses as it was not possible to find a decrease (for physical punishment) or an increase (for non-physical forms of punishment) on these items post-intervention.

Seventh, biases inherent in self-reports such as social desirability bias (the over-reporting of desirable behaviour by parents) and recall bias (accuracy or completeness of recollections) should also be considered when interpreting the study’s findings. Eighth, although there is evidence that the psychometric properties of the International Parenting Survey (Canada) scales (Child Adjustment and Parent Efficacy Scale: CAPES and the Parenting and Family Adjustment Scales: PAFAS) are reliably useful for their intended purpose, further testing of the validity of the scales (e.g., convergent validity, discriminant validity) and validation with more diverse samples in terms of sex, age, ethnicity, and different cultures is needed (Morawska et al., 2014; Sanders et al., 2014). Ninth, in the present study, the scale used to measure non-punitive parenting responses

of interest included planned ignoring as a non-parenting responses. However, by definition, planned ignoring is a punishment (a reward, parents' attention, is removed following a behaviour). This suggests the scale used to measure non-punitive parenting responses measured both punitive and non-punitive responses. Using a separate scale to measure planned ignoring as a punishment would ensure more accurate measurement of the constructs of interest. Finally, the dataset used to examine hypothesis 4 (International Parenting Survey-Canada) was drawn from a convenience sample. Thus, it is not representative of Canadian parents; this should be considered when interpreting study findings.

Future Directions

Various directions for future research can be derived from the present study's findings. Results from the Triple P component of this study justify further research on the effects of Level 2 Triple P on parenting behaviour. First, examining the impact of Level 2 Triple P with a larger sample and a randomized controlled design is warranted. This could be done by approaching and getting buy-in from government and community leaders who can provide the resources needed (money, venue, facilitators, access to parents) to deliver the Seminar Series. It would be interesting to see if the observed effect of Level 2 Triple P on parental use of physical punishment, non-physical forms of punishment, and non-punitive parenting strategies would be different with a larger sample and a more robust study design.

Second, future research should follow parents over a few months post-program completion with repeated data collection at specific time periods (e.g., 3 months, 6 months). This would allow one to examine if changes observed pre- to post-intervention are maintained over time. Third, it is also important to gain an understanding of how the various components of Seminar Triple P are related to successful outcomes. For example, how do the Triple P handouts

received at the end of each seminar influence parents' parenting? Such information would assist in enhancing the effectiveness of the seminars.

Fourth, future research on the effect of the Seminar Series on parents' behaviour should make use of samples with increased participation of fathers, younger parents, parents from other social backgrounds, and parents from ethnic backgrounds other than Caucasian (e.g., Aboriginal parents, immigrants). Research with such samples would not only contribute to the external validity of the findings but would also contribute to the evidence base of the Seminar Series.

Fifth, the recruitment challenges encountered through this study highlight the need for research on how to get parents to participate in brief parent education seminars and identifying recruitment methods that are most effective (i.e., posters versus personal contact from participating agencies). The time commitment required for the Seminar Series (90 minutes for one seminar, 270 minutes for 3 seminars) may not be seen as minimal by parents of young children who often have competing demands. This suggests that offering a wide array of delivery modes (e.g., web-based program, self-directed with telephone assistance, television program, etc.) may make the content more accessible to parents. To facilitate the recruitment process, it may be helpful to: (1) have a draw at the end of each seminar giving parents the opportunity to win a prize, (2) offer an incentive or token of appreciation for each potential participant after attending each seminar, (3) offer child minding services, (4) identify the ideal time for participant recruitment from participating organizations (e.g., the beginning and end of the school year is a very hectic time for administrators; some agencies plan their program offerings well in advance; it may be best to visit daycare centres in the morning, etc.), (5) identify well in advance agencies, groups, or school divisions interested in offering the seminars, and (6) provide monetary contributions for organizations who agree to offer the seminars and minimize additional work

for host organization employees.

Sixth, results from the second component of this study (using International Parenting Survey data to examine Belsky's postulate), justify further testing of Belsky's (1984) theoretical proposition. Also, the present study focused on a limited range of child, parent, and socio-demographic characteristics as predictors of parenting behaviour. Future research should examine the predictive power of other child and parent characteristics such as type of child misbehaviour, conflict with partner, parental confidence or perceived competence, quality and type of parent-child relationship (e.g., biological parent, step parent), and parents' childhood history of physical punishment, non-physical forms of punishment, and non-punitive parenting behaviours. Further, it may be the case that in order to understand parenting behaviours, other factors that are part of the disciplinary process must be taken into account such as the consistency with which parents respond with particular behaviours (Straus & Fauchier, 2007).

Seventh, we do not know whether the characteristics examined as predictors of parenting behaviour here (e.g., coercive parenting) would predict use of non-physical forms of punishment or non-punitive parenting responses. The question remains as to what factors predict those parenting behaviours. Finally, in this study, both the Triple P intervention and the analysis using IPS-C data relied on parental self-reports. Future studies should include two or more sources of information (e.g., children's reports, teachers' reports) or make use of other methodologies (e.g., audio recordings of family interactions, home observation and coding of family interactions) to ensure greater accuracy of measured outcomes and facilitate validation of the data.

Conclusions

The findings from the Triple P intervention component of this research highlight the need to further examine the impact of the Seminar Series on parental use of physical punishment, non-

physical forms of punishment, and non-punitive parenting responses. Belsky's (1984) theoretical proposition that parental factors are the most influential determinants of parenting behaviour and child factors are least influential requires further investigation. Only through more research on predictors of coercive parenting will a better understanding of children who may be at risk of growth limiting parenting and parents who would benefit most from positive parenting education be attained.

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Appendix A

Information Letter

Below you will find more information about the Triple study I am conducting. The study explores the effect of Seminar Triple P (Level 2) on the parenting practices of mothers and fathers of 2 to 6 year old children. In a nutshell, participation in the study involves attending 3 Triple P seminars and completing two questionnaires about the use of various parenting strategies. A Triple P practitioner will be facilitating the seminars for this study. As a small compensation for your participation, participants will have the opportunity to enter their names into a draw to win \$50 upon completing each of the two questionnaires. Participants will also have a chance to participate in three \$50 draws after the third seminar if they attend all 3 seminars.

Thank you for reading this information sheet.

Title of the Study

The Effects of Level 2 Positive Parenting Program (Triple P) on Parental Use of Physical Punishment, Non-Physical Forms of Punishment, and Non-Punitive Parenting Responses.

Purpose of the Study

The purpose of this research study is to examine the effect of Level 2 Triple P on the parenting practices of mothers and fathers of 2 to 6 year old children.

Study Procedures – Participation will involve:

- Attending all 3 seminars. These are 60 minute seminars with a 30 minute question and answer period. Seminars are offered to large groups of parents (20 or more) and involve informal presentation or discussion about common parenting concerns.
- Completing 2 online questionnaires. Each questionnaire takes about 15 minutes to complete and includes questions about mothers' and fathers' use of various parenting strategies. The first questionnaire will be sent to all participants 2 weeks before the first seminar. The second questionnaire will be sent to all participants 2 weeks after the third seminar. Participants who have access to email will receive an email with a link to the questionnaire. Those with no access to email will receive a copy of the questionnaire via post.
- Being asked to provide their name, phone number, and email (or mailing address if do not have email address) so they can receive study information (e.g., reminders as to seminar, dates/venue, thank-you email, and summary of findings).
- Having the opportunity to enter their name into a draw to win \$50 upon completing each of the questionnaires.
- Having the opportunity to participate in three \$50 draws after the third seminar if mothers

attend all 3 seminars

Benefits

Participants will have the opportunity to attend the Level 2 Triple P seminars for free and receive a summary of the study's results (gain additional knowledge in area).

Compensation

Participants will have the opportunity to enter their name into a draw to win \$50 upon completing each of the two questionnaires. Participants who attend all three seminars will have a chance to participate in three \$50 draws after the third seminar.

Risks and Discomforts

There are no costs or anticipated risks associated with participation. The questions participants will be asked are known not to create severe distress. Should participants feel uncomfortable or distressed by any of the questions, they will be reminded of their rights as research participants (refuse to answer specific questions or to not complete the questionnaire) and a resource will be provided should they wish to discuss their concerns.

Voluntary Participation/Withdrawal from the Study

Participants will be free to decline to participate, refrain from answering any questions they prefer to omit, and/or withdraw from the study at any time without prejudice or consequence. To withdraw from the study, participants will be encouraged to contact the principal investigator at the number/email provided below.

Confidentiality and Anonymity

Mothers' and fathers' participation is confidential. Their contact information will not be shared with anyone and data they provide will only be accessible to the principal investigator (Miriam Gonzalez) and her research supervisor, Dr. Christine Ateah. To ensure anonymity, participants will not be asked to provide their name when completing the online questionnaires (or mailed-in questionnaires for those who are sent paper copies). Also, their name will not be used in the research, publications, or presentations of study findings. That is, results will be presented in aggregate form.

This research has been approved by the University of Manitoba Nursing/Education Research Ethics Board. If you have any concerns about this project you may contact any of the below-named persons or the Human Ethics Coordinator (HEC) at 474-7122. If you would like more detail about anything mentioned here, please contact me at this number: xxx.xxx or by email at: umgonza6@cc.umanitoba.ca .

Thank-you again for your time and consideration.
Sincerely,

Miriam Gonzalez PhD (Candidate)
Applied Health Sciences Doctoral Program
University of Manitoba
umgonza6@umanitoba.ca

Dr. Christine Ateah
Professor and Research Supervisor
University of Manitoba
Christine.Ateah@umanitoba.ca

**Appendix B
Recruitment Flyer**



Questions about Parenting?

Is this you?

- ✦ You feel that parenting is rewarding but you'd like a few tips and some information to help you during tricky situations such as bedtime battles, temper tantrums, or aggression.
- ✦ You are a Mom or Dad with a child between the ages of 2 and 6 years.

If so, you are invited to take part in a study about the Positive Parenting Program (Triple P)

Participation Involves:

- Attending 3 free parenting sessions (these are Triple P seminars offered to large groups of parents & involve informal discussion about common parenting concerns)
- Filling out 2 questionnaires
- Chance to **win \$50** after completing each questionnaire!
- Chance to **enter three \$50 draws** after attending all 3 seminars!



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The study has been approved by the University of Manitoba Education/Nursing Research Ethics Board. Human Ethics Coordinator may be contacted at 204 474 7122 or at Margaret.Bowman@umanitoba.ca
Study Title: The Effects of Level 2 Positive Parenting Program (Triple P) on Parental Parenting

For more information: Call/Email Miriam: xxx.xxx.xxxx or umgonza6@cc.umanitoba.ca

Triple P Study Contact Miriam: umgonza6@cc.umanitoba.ca	Triple P Study Contact Miriam: umgonza6@cc.umanitoba.ca	Triple P Study Contact Miriam: umgonza6@cc.umanitoba.ca	Triple P Study Contact Miriam: umgonza6@cc.umanitoba.ca
Triple P Study Contact Miriam: umgonza6@cc.umanitoba.ca	Triple P Study Contact Miriam: umgonza6@cc.umanitoba.ca	Triple P Study Contact Miriam: umgonza6@cc.umanitoba.ca	Triple P Study Contact Miriam: umgonza6@cc.umanitoba.ca



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Appendix C

Telephone Recruitment Script

- Hi, thank-you for your interest. I am a doctoral student at the University of Manitoba conducting a study under the supervision of Dr. Christine Ateah, University of Manitoba. The **purpose of the study** is to look at parenting education and its effects on the parenting practices of mothers and fathers of 2 to 6 year old children.
- Before I tell you more about the study, I should mention that we are focusing on mothers and fathers of 2 to 6 year old children who have not participated in any other formal parent education program.
 - Have you participated in any other parent education program (e.g., Nobody's Perfect) ? ___ Yes ___No
 - Do you have a child who is between the ages of 2 and 6? ___ Yes ___No
 - Are you 18 years of age or older? ___ Yes ___No
 - Mother/Father speaks/understands/reads/writes English ___ Yes ___No
- If **mother/father does not meet inclusion criteria** → tell them you're specifically looking for group of mothers who meet inclusion criteria (as per above) and thank them for their interest.
If **mother/ father meets inclusion criteria** → proceed
- Great. I'm basically interested in learning more about the parenting strategies used by mothers who attend the Seminar series. Your participation will help us gain a better understanding of the parenting practices and challenges faced by mothers of children of this age group.
- **If you decide to participate, you will be requested to:**
 - Attend all 3 seminars. These are 60 minute seminars with a 30 minute question and answer period. The seminars are offered to large groups of parents (20 or more) and involve informal presentation or discussion about common parenting concerns.
 - Complete 2 questionnaires. Each questionnaire takes about 15 minutes to complete and includes questions about mothers'/fathers' use of various parenting strategies. Socio-demographic data will also be collected. The questionnaires can be completed online. Participants who have access to email will receive an email with a link to the survey. Those with no access to email will receive a copy of the questionnaire via post. The first questionnaire will be sent to all participants 2 weeks before the first seminar. The second questionnaire will be sent to all participants 2 weeks after the third seminar.
 - Provide your name, phone number, and email (or mailing address if do not have email address) so study information can be sent to you (e.g., copy of consent form,

reminders as to seminar dates/venue, thank-you email, and summary of findings). If you did not indicate your interest in receiving a summary of the findings when you spoke to the researcher (Miriam) on the phone, you can call or email her at the number/email noted above. Please note all contact information (name, phone number, mailing address, email address) will not be shared and will be destroyed once the project is completed.

- Enter your name into a draw to win \$50 upon completing each of the questionnaires **if** you would like a chance to win these prizes.
 - If you attend all 3 seminars, you will have the opportunity to participate in three \$50 draws after the third seminar has been delivered.
 - The seminars will be offered at *insert location* on *insert dates*
 - There are **no costs and no anticipated risks** associated with your participation. You will have the opportunity to enter your name into a **draw to win \$50 upon completing each of the two questionnaires**. Mothers/Fathers who attend all 3 seminars will have a chance to enter three \$50 draws after the third seminar has been delivered. You will also have the opportunity to **receive a summary** of the study's results once the study is completed (approximately 6 months) **and thus gain more knowledge** in this area.
 - Your decision to take part in this study is **voluntary** and once you decide to participate, you have the right to **withdraw from the study at any time** or to choose not to answer any questions you prefer to omit.
 - To protect your **confidentiality and anonymity**, your contact information and data you provide through the surveys will be kept in a locked cabinet, will not be connected to your questionnaires, and will not be shared with anyone. Further, you will not be required to provide your name when completing the surveys. Although I would ask for your email address and phone number (to send copy of consent form and reminders as to seminar dates/venues), all personal information and data you provide through the surveys will be destroyed once the project is completed.
 - Would you be interested in participating in this research project?
- NO: Thank-you for your time and consideration.
- YES:
- Is this the **number** where you can be reached? I will call only to remind you of seminar start times and venue. Phone Number: _____
 - And your **name & last name**: _____
 - May I have your email address?

- **If participant has email address:** The purpose of this is to send you a copy of the Consent form that you can review. **Email address:** _____
I will send you the consent form after we hang up. Please review it and check the appropriate box indicating whether you consent to participate and email it back to me.

 - **If participant does not have email address:** I can send the consent form by mail. Would that be ok? What is your **mailing address?** : _____
_____. I will also send a postage paid envelope. Please read the consent form, sign it, and send it back to me in that envelope.
- Would you be **interested in receiving a summary of the findings** via email/post (depending on mother as per above) once the project is completed?
 - Yes. I will email the Summary/I will mail the Summary once it is available.
 - No

 - Please note your contact information will not be shared with anyone except my supervisor Dr. Christine Ateah. Also, your name will not be used in the research. There is detailed information about confidentiality in the Consent form I will be sending you.

 - Do you have **any questions**? If you think of any questions, please do not hesitate to contact me by phone at xxx. xxx xxxx or email at umgonza6@cc.umanitoba.ca

 - Thank-you for deciding to participate.



Appendix D

Consent Form

Title of Study: The Effects of Level 2 Positive Parenting Program (Triple P) on Parental Use of Physical Punishment, Non-Physical Forms of Punishment, and Non-Punitive Parenting Responses.

Principal Investigator and Contact Information : Miriam Gonzalez PhD(Candidate), Applied Health Sciences Doctoral student, University of Manitoba; Email: umgonza6@cc.umanitoba.ca

Research Supervisor and Contact Information: Dr. Christine Ateah, Associate Professor, Faculty of Nursing, University of Manitoba; Email: Christine.Ateah@umanitoba.ca

This consent form is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information. Please note this research has been approved by the University of Manitoba Nursing/Education Research Ethics Board.

Purpose of the Study

The purpose of this research study is to examine the parenting practices of mothers and fathers' of 2 to 6 year old children before and after a parent education program. Approximately 100 parents will participate in this study.

Study Procedures

In this study, you will be requested to:

- Attend all 3 seminars. These are 60 minute seminars with a 30 minute question and answer period. The seminars are offered to large groups of parents (20 or more) and involve informal presentation or discussion about common parenting concerns.
- Complete 2 questionnaires. Each questionnaire takes about 15 minutes to complete and includes questions about your use of various parenting strategies. Socio-demographic data will also be collected. The questionnaires can be completed online. Participants who have access to email will receive an email with a link to the survey. Those with no access to email will receive a copy of the questionnaire via post. The first questionnaire will be sent to all participants 2 weeks before the first seminar. The second questionnaire will be sent to all participants 2 weeks after the third seminar.
- Provide your name, phone number, and email (or mailing address if do not have email address) so study information can be sent to you (e.g., copy of consent form, reminders as to seminar dates/venue, thank-you email, and summary of findings). If you did not indicate your interest in receiving a summary of the findings when you spoke to the researcher (Miriam)

on the phone, you can call or email her at the number/email noted above. Please note all contact information (name, phone number, mailing address, email address) will not be shared and will be destroyed once the project is completed.

- Enter your name into a **draw to win \$50** upon completing each of the questionnaires **if** you would like a chance to win these prizes.
- If you attend all 3 seminars, you will have the **opportunity to participate in three \$50 draws** after the third seminar has been delivered.

Benefits

Your participation will help us gain a better understanding of the parenting practices and challenges faced by parents of 2 to 6 year olds. You will have the opportunity to attend the Triple P seminars for free and receive a brief (1 page) summary of the study's results via email (or post if you have no access to email) once the project is completed (approximately 6 months). Thus, you will have the opportunity to gain additional knowledge in this area.

Compensation

You will have the opportunity to enter your name into a draw to win \$50 upon completing each of the two questionnaires. Also, participants who attend all three seminars will have a chance to participate in three \$50 draws after the third seminar.

Risks and Discomforts

There are no costs or anticipated risks associated with your participation. The questions you will be asked are known not to create severe distress. However, some participants may feel uncomfortable answering some of the questions. If this should happen, you have the right to refuse to answer specific questions or to decide to not complete the questionnaire. Should you become upset or distressed by any of the questions and wish to discuss your concerns, you may call the Klinik crisis line at 1.888.322.3019 (toll free) or 204.786.8686 (in Winnipeg). You can call from anywhere in the province, 24 hours a day, 7 days a week.

Voluntary Participation/Withdrawal from the Study

Your decision to take part in this study is voluntary. You may refuse to participate, refrain from answering any questions you prefer to omit, and/or withdraw from the study at any time without prejudice or consequence. To withdraw from the study, please contact the principal investigator at the number/email provided above. If you complete hard copy questionnaires (only for those with no access to email), questionnaires will be shredded once you indicate you would like to withdraw. If you complete online questionnaires, it may not be possible to destroy data collected from you to that point.

Confidentiality and Anonymity

Your participation is confidential. For the duration of the study, your contact information will be kept in a locked file cabinet and data you provide through the questionnaires will be stored in an online Fluidsurvey file. At the end of the study, contact information and questionnaire data will be destroyed (shredding of mailed-in questionnaires and erasure of data collected through on-line questionnaires: Fluidsurvey and spss files). Please note your contact information will not be

linked to the data you provide. Contact information will not be shared with anyone and questionnaire data will only be accessible to the principal investigator (Miriam Gonzalez) and my research supervisor, Dr. Christine Ateah. To ensure anonymity, you will not be asked to provide your name when completing the online questionnaires (or mailed-in questionnaires for those who are sent paper copies). Also, your name will not be used in the research, publications, or presentations of study findings. That is, results will be presented in aggregate form.

Questions

You are free to ask any questions you may have about this study and your rights as a research participant. If you would like more detail about something mentioned here or information not included here or if any questions come up during or after the study, please contact Miriam Gonzalez (umgonza6@cc.umanitoba.ca). Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation. For questions about your rights as a research participant or if you have any concerns or complaints about this project, you may contact the Human Ethics Coordinator (HEC) at 474 7122 or at Margaret.Bowman@umanitoba.ca

Statement of Consent

I have read this consent form. I have had the opportunity to discuss this research study and/or ask questions. I have had my questions answered in language I understand. The risks and benefits have been explained to me. I believe that I have not been unduly influenced to participate in this study. I understand that: (1) I can keep a copy of this email/letter for my records and reference, (2) participation in this study is voluntary and that I may choose to withdraw at any time, (3) information regarding my personal identity will be kept confidential but that confidentiality is not guaranteed, and that (4) The University of Manitoba may look at any of my records that relate to this study to see that the research is being done in a safe and proper way. I freely agree to participate in this research study. I authorize the inspection of any of my records that relate to this study by The University of Manitoba Research Ethics Board.

Your placing an “x” beside the Yes option below indicates that you have understood to your satisfaction the information regarding participation in the research project and freely agree to participate. By placing an “x” beside the Yes option below and providing my name and date, I have not waived any of my legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities.

I hereby consent to take part in the study as outlined above. Yes No

Name: _____ Date: _____

Researcher's signature: *Miriam Gonzalez* Date: *insert date*

Appendix E

Pre-Tet: Survey Questionnaire

Please note that your responses are confidential. The information you provide will not be shared with anyone and your name will not be used in the research. You can also refuse to answer specific questions if you so wish. At the end of the questionnaire you will be asked for your name. Please provide your name if you would like to enter a draw to win \$50 for completing this questionnaire.

Unique Code: We'd like you to provide a code word that is unique to you. Please provide the first three letters of your street name and the first three letters of your birth month. For example, if you live on Broadway Avenue and your birth month is January, your code word would be brojan. Please provide your code word: _____.

You may wish to write down your code for future reference. You will be asked for this code once again when completing the final online questionnaire.

*James- having pop up message asking them to provide code if they don't provide it is a good idea.

PART A. The first section of this questionnaire asks about yourself (general background information). Please provide the following information:

1. Marital status:

- | | |
|--|---------------------------------------|
| <input type="checkbox"/> Single | <input type="checkbox"/> Divorced |
| <input type="checkbox"/> Married | <input type="checkbox"/> Widowed |
| <input type="checkbox"/> Living with partner | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Separated | |

2. Your sex:

- Male Female

3. How old were you at your last birthday: _____ years old.

4. How many of your children or stepchildren (who are under 18) live with you for part or all of every week? _____

5. Please list the ages of the children or stepchildren under 18 living in your house for at least part of every week:

Girls: _____/_____/_____/_____/_____

Boys: _____/_____/_____/_____/_____

6. Please indicate how much education you and your partner finished:

YOU	PARTNER	
<input type="checkbox"/>	<input type="checkbox"/>	Grade school
<input type="checkbox"/>	<input type="checkbox"/>	Some high school
<input type="checkbox"/>	<input type="checkbox"/>	Completed high school
<input type="checkbox"/>	<input type="checkbox"/>	Some college or technical school
<input type="checkbox"/>	<input type="checkbox"/>	Completed 4 year college or university
<input type="checkbox"/>	<input type="checkbox"/>	Some post-graduate education
<input type="checkbox"/>	<input type="checkbox"/>	Completed a post-graduate degree (M.A., M.D., PhD., etc)

7. About how much was your **total household income** before taxes for the **previous year**?

- \$0-2,999
- \$3,000- 7,999
- \$8,000-12,999
- \$13,000- 19,999
- \$20,000-29,999
- \$30,000- 39,999
- \$40,000-49,999
- \$50,000-59,999
- \$60,000-79,999
- \$80,000-99,999
- \$100,000 and over

8. How many people (include both adults and children and stepchildren) lived on this income? _____

9. In what kind of home do you live?

<input type="checkbox"/>	Apartment, condo, or co-op owned by myself or partner
<input type="checkbox"/>	Rented apartment or condo
<input type="checkbox"/>	Trailer on property owned by myself or partner
<input type="checkbox"/>	Trailer on property owned by another family member or friend living on the same property
<input type="checkbox"/>	Trailer in a trailer park or other rented property
<input type="checkbox"/>	Rented house
<input type="checkbox"/>	House owned by myself or partner
<input type="checkbox"/>	Home owned by another member of your household (e.g., a family member living with you)
<input type="checkbox"/>	Other: _____

10. Other than Canadian, to which ethnic or cultural group do you belong?

- Aboriginal (First Nations, Inuit, Métis)
- Chinese Korean Filipino Japanese
- European
- Latin American
- Black (e.g. African, Haitian, Jamaican)
- Arab/West Asian (e.g. Armenian, Egyptian, Iranian, Lebanese, Moroccan)
- South Asian (e.g. East Indian, Pakistani, Punjabi, Sri Lankan)
- South East Asian (e.g. Cambodian, Indonesian, Laotian, Vietnamese)
- Other: _____

11. Can you describe your primary reason for taking these seminars?

PART B. For this section, **please think about your 2-6 year old child.** If you have more than one child who is between the ages of 2 and 6, please choose one and answer the questions below in reference to that child.

1. Child's sex: Male Female

2. How old was this child at his/her last birthday? _____ years.

3a. Is this child:

- Your child by birth Stepchild
- Your child by adoption Other: _____

3b. If you are living with a partner, is the child your partner's biological child?

- Yes No

4. Children misbehave in many different ways in many different situations (e.g., bedtime, eating, picking up their toys, disobedience, etc). Please **think of your 2-6 year old child** and list one example (each) of the most common minor misbehaviour and most common serious misbehaviour by your child **over the past month**.

a. MINOR MISBEHAVIOUR:

Example: _____

Do you believe that the child did this on purpose? ___ Yes ___ No

Do you believe that this behaviour is common among children of this age? ___ Yes ___ No

b. SERIOUS MISBEHAVIOUR:

Example: _____

Do you believe that the child did this on purpose? ___ Yes ___ No

Do you believe that this behaviour is common among children of this age? ___ Yes ___ No

c. Over the past month, would you say that the type of misbehaviour by your child which resulted in a disciplinary response by you was (Select one):

Primarily minor misbehaviour ___

Primarily serious misbehaviour ___

d. Over the past month, how often have you interpreted the cause of your child's misbehaviour as intentional?

___ Never ___ Sometimes ___ Most of the time ___ Almost always

See next page...

PART C. This section asks about what you did when your child misbehaved in the past month. Please **think of your 2-6 year old** child (the child you chose in the previous section) and use the scale below when answering these questions.

1. Two or more times a day	4. Weekly (1-2 times a week)
2. Daily (5 or more times a week)	5. A few times a month (2-3 times a month)
3. Several times a week (3-4 times)	6. Never

WHEN THIS CHILD MISBEHAVED (MINOR OR SEVERE) IN THE PAST MONTH:

<p>1. How often did you explain the rules to try to prevent the child repeating misbehaviour?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>2. How often did you take away this child’s allowance, toys, or other privileges because of misbehaviour?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>3. How often did you put this child in “time out” or send them to their room for a period of time?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>4. How often did you shout or yell at this child?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>5. How often did you shake or grab this child to get their attention?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>6. How often did you give this child something else they might like to do instead of what they were doing wrong?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>7. How often did you try to make this child feel ashamed or guilty?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>8. How often did you deliberately not pay attention when this child misbehaved?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>9. How often did you spank slap, smack, or swat this child?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>

Part C (Cont'd). Please **think of your 2-6 year old** child and use the scale below when answering these questions.

1. Two or more times a day	4. Weekly (1-2 times a week)
2. Daily (5 or more times a week)	5. A few times a month (2-3 times a month)
3. Several times a week (3-4 times)	6. Never

WHEN THIS CHILD MISBEHAVED (MINOR OR SEVERE) IN THE PAST MONTH:

<p>10. How often did you use paddle, hairbrush, belt, or other object?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>11. How often did you praise this child for finally stopping bad behaviour and for behaving well?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>12. How often did you hold back affection by acting cold or not giving hugs or kisses?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>13. How often did you send this child to bed without a meal?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>14. How often did you tell this child that you were watching or checking to see if they did something?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>15. How often did you give this child money or other things for finally stopping bad behaviour or for behaving well?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>16. How often did you show or demonstrate the right thing to do for this child?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>17. How often did you let this child misbehave so that they would have to deal with the results?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>18. How often did you give this child extra chores as a consequence?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>

Part C (Cont'd). Please **think of your 2-6 year old** child and use the scale below when answering these questions.

1. Two or more times a day	4. Weekly (1-2 times a week)
2. Daily (5 or more times a week)	5. A few times a month (2-3 times a month)
3. Several times a week (3-4 times)	6. Never

WHEN THIS CHILD MISBEHAVED (MINOR OR SEVERE) IN THE PAST MONTH:

<p>19. How often did you make this child do something to make up for some misbehaviour; for example, pay for a broken window?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>20. When this child behaved badly, how often did you tell the child that they are lazy, sloppy, thoughtless, or some other name like that?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>21. How often did you withhold this child's allowance, toys, or other privileges until the child did what you wanted them to do?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>22. How often did you check on this child to see if they were misbehaving?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>23. How often did you check on this child so that you could tell them they were doing a good job?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>24. How often did you make this child apologize or say they were sorry for misbehaviour?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>25. How often did you wash this child's mouth out with soap, put hot sauce on their tongue, or something similar?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>26. How often did you ground this child or restrict their activities outside the home because of misbehaviour?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>

PART D. This section asks about the discipline behaviours used **by your mother** when you were 10 years old. Please **think back to when you were 10 years of age**. If you were **not raised by** your biological **mother**, answer the following questions with regards to the **mother-figure** who had the biggest role in disciplining you.

a. Which mother-figure will you be describing (the person who had the biggest role in disciplining you at age 10).

- Biological mother
- Adoptive mother
- Foster mother
- Stepmother
- Father’s girlfriend
- Other adult female relative (specify relationship): _____
- Other (specify relationship & gender): _____

Use the following scale to answer the questions below:

1. Two or more times a day	4. Weekly (1-2 times a week)
2. Daily (5 or more times a week)	5. A few times a month (2-3 times a month)
3. Several times a week (3-4 times)	6. Never

b. WHEN YOU MISBEHAVED AT AGE 10:

1. How often did your mother explain the rules to you to try to prevent you from repeating misbehaviour?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4	5	6
2. How often did your mother take away your allowance, toys, or other privileges because of misbehaviour?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4	5	6
3. How often did your mother put you in “time out” or send you to your room for a period of time?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4	5	6
4. How often did your mother shout or yell at you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4	5	6
5. How often did your mother shake or grab you to get your attention?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4	5	6
6. How often did your mother give you something else you might like to do instead of what you were doing wrong?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4	5	6

PART D (Cont'd). When answering the following questions, please think of your biological **mother (or mother-figure)** and use the scale below:

1. Two or more times a day	4. Weekly (1-2 times a week)
2. Daily (5 or more times a week)	5. A few times a month (2-3 times a month)
3. Several times a week (3-4 times)	6. Never

WHEN YOU MISBEHAVED AT AGE 10:

<p>7. How often did your mother try to make you feel ashamed or guilty?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>8. How often did your mother deliberately not pay attention when you misbehaved?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>9. How often did your mother spank, slap, smack, or swat you?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>10. How often did your mother use a paddle, hairbrush, belt, or other object?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>11. How often did your mother praise you for finally stopping bad behaviour and for behaving well?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>12. How often did your mother hold back affection by acting cold or not giving hugs or kisses?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>13. How often did your mother send you to bed without a meal?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>14. How often did your mother tell you that she was watching or checking to see if you did something?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>15. How often did your mother give you money or other things for finally stopping bad behaviour or for behaving well?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>

PART D (Cont'd). When answering the following questions, please think of your biological **mother (or mother-figure)** and use the scale below:

1. Two or more times a day	4. Weekly (1-2 times a week)
2. Daily (5 or more times a week)	5. A few times a month (2-3 times a month)
3. Several times a week (3-4 times)	6. Never

WHEN YOU MISBEHAVED AT AGE 10:

<p>16. How often did your mother show or demonstrate to you the right thing to do?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>17. How often did your mother let you misbehave so that you would have to deal with the results?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>18. How often did your mother give you extra chores as a consequence?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>19. How often did your mother make you do something to make up for some misbehaviour; For example, pay for a broken window?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>20. When you behaved badly, how often did your mother tell you that you were lazy, sloppy, thoughtless, or some other name like that?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>21. How often did your mother withhold your allowance, toys, or other privileges until you did what she wanted you to do?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>22. How often did your mother check on you to see if you were misbehaving?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>23. How often did your mother check on you so that she could tell you that you were doing a good job?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>24. How often did your mother make you apologize or say you were sorry for misbehaviour?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>

25. How often did your mother **wash your mouth out with soap, put hot sauce on your tongue, or something similar?**

1 2 3 4 5 6

26. How often did your mother **ground you or restrict your activities outside the home** because of misbehaviour?

1 2 3 4 5 6

PART E. We are interested in learning about the types of responses that parents use in reaction to common child misbehaviours. Please use the scale below to **indicate how frequently you have used each** of the following responses with your 2-6 year old child **in the past month**. If you have more than one child between the ages of 2 and 6, we asked you earlier to choose one child to answer the questions. Please continue to answer the questions below in reference to that same child.

A. Never	E. 5-6 times
B. Less than once a week	F. 7-8 times
C. 1-2 times	G. 9 or more
D. 3-4 times	

1 How often did you **spank**:

With hand:

A B C D E F G

With object (e.g., belt):

A B C D E F G

2 How often did you slap:

Face:

A B C D E F G

Hand:

A B C D E F G

THANK-YOU for helping us by completing this questionnaire!

Please provide your name below if you would like to **enter a DRAW TO WIN \$50** for completing this questionnaire! **Name & Last Name:** _____

***James: providing link to another survey asking name/last name as you suggested sounds good**

Appendix F

Post-Test: Survey Questionnaire

Please note that your responses are confidential. The information you provide will not be shared with anyone and your name will not be used in the research. You can also refuse to answer specific questions if you so wish. At the end of the questionnaire you will be asked for your name. Please provide your name if you would like to enter a draw to win \$50 for completing this questionnaire.

Unique Code: please provide your unique code word that you used for the first online questionnaire (Your code word is the first three letters of your street name and the first three letters of your birth month): _____.

*James- having pop up message asking them to provide code if they don't provide it is a good idea.

Please indicate how many seminars you attended:

Seminar 1: Yes No

Seminar 2: Yes No

Seminar 3: Yes No

PART A. For this section, **please think about your 2-6 year old child**. If you have more than one child who is between the ages of 2 and 6, we asked you to choose one child and answer the questions in reference to that child when completing the first questionnaire. Please answer the questions below in reference to that same child.

1. Child's sex: Male Female

2. How old was this child at his/her last birthday? _____ years.

3a. Is this child:

Your child by birth

Stepchild

Your child by adoption

Other: _____

3b. If you are living with a partner, is the child your partner's biological child?

Yes

No

4. Children misbehave in many different ways in many different situations (e.g., bedtime, eating, picking up their toys, disobedience, etc). Please **think of your 2-6 year old child** and list one example (each) of the most common minor misbehaviour and most common serious misbehaviour by your child **over the past month**.

e. MINOR MISBEHAVIOUR:

Example: _____

Do you believe that the child did this on purpose? ___ Yes ___ No

Do you believe that this behaviour is common among children of this age? ___ Yes ___ No

f. **SERIOUS MISBEHAVIOUR:**

Example: _____

Do you believe that the child did this on purpose? ___ Yes ___ No

Do you believe that this behaviour is common among children of this age? ___ Yes ___ No

g. Over the past month, would you say that the type of misbehaviour by your child which resulted in a disciplinary response by you was (Select one):

Primarily minor misbehaviour ___

Primarily serious misbehaviour ___

h. Over the past month, how often have you interpreted the cause of your child's misbehaviour as intentional?

___ Never ___ Sometimes ___ Most of the time ___ Almost always

See next page...

PART B. This section asks about what you did when your child misbehaved in the past month. Please **think of your 2-6 year old** child (the child you chose in the previous section) and use the scale below when answering these questions.

1. Two or more times a day	4. Weekly (1-2 times a week)
2. Daily (5 or more times a week)	5. A few times a month (2-3 times a month)
3. Several times a week (3-4 times)	6. Never

WHEN THIS CHILD MISBEHAVED (MINOR OR SEVERE) IN THE PAST MONTH:

<p>1. How often did you explain the rules to try to prevent the child repeating misbehaviour?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>2. How often did you take away this child’s allowance, toys, or other privileges because of misbehaviour?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>3. How often did you put this child in “time out” or send them to their room for a period of time?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>4. How often did you shout or yell at this child?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>5. How often did you shake or grab this child to get their attention?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>6. How often did you give this child something else they might like to do instead of what they were doing wrong?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>7. How often did you try to make this child feel ashamed or guilty?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>8. How often did you deliberately not pay attention when this child misbehaved?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>9. How often did you spank slap, smack, or swat this child?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>

Part B (Cont'd). Please **think of your 2-6 year old** child and use the scale below when answering these questions.

1. Two or more times a day	4. Weekly (1-2 times a week)
2. Daily (5 or more times a week)	5. A few times a month (2-3 times a month)
3. Several times a week (3-4 times)	6. Never

WHEN THIS CHILD MISBEHAVED (MINOR OR SEVERE) IN THE PAST MONTH:

10. How often did you use paddle, hairbrush, belt, or other object?						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	
11. How often did you praise this child for finally stopping bad behaviour and for behaving well?						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	
12. How often did you hold back affection by acting cold or not giving hugs or kisses?						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	
13. How often did you send this child to bed without a meal?						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	
14. How often did you tell this child that you were watching or checking to see if they did something?						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	
15. How often did you give this child money or other things for finally stopping bad behaviour or for behaving well?						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	
16. How often did you show or demonstrate the right thing to do for this child?						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	
17. How often did you let this child misbehave so that they would have to deal with the results?						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	
18. How often did you give this child extra chores as a consequence?						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	

Part B (Cont'd). Please **think of your 2-6 year old** child and use the scale below when answering these questions.

1. Two or more times a day	4. Weekly (1-2 times a week)
2. Daily (5 or more times a week)	5. A few times a month (2-3 times a month)
3. Several times a week (3-4 times)	6. Never

WHEN THIS CHILD MISBEHAVED (MINOR OR SEVERE) IN THE PAST MONTH:

<p>19. How often did you make this child do something to make up for some misbehaviour; for example, pay for a broken window?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>20. When this child behaved badly, how often did you tell the child that they are lazy, sloppy, thoughtless, or some other name like that?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>21. How often did you withhold this child's allowance, toys, or other privileges until the child did what you wanted them to do?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>22. How often did you check on this child to see if they were misbehaving?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>23. How often did you check on this child so that you could tell them they were doing a good job?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>24. How often did you make this child apologize or say they were sorry for misbehaviour?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>25. How often did you wash this child's mouth out with soap, put hot sauce on their tongue, or something similar?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>
<p>26. How often did you ground this child or restrict their activities outside the home because of misbehaviour?</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p>

PART C. We are interested in learning about the types of responses that parents use in reaction to common child misbehaviours. Please use the scale below to **indicate how frequently you have used each** of the following responses with your 2-6 year old child **in the past month**. If you have more than one child between the ages of 2 and 6, we asked you earlier to choose one child to answer the questions. Please continue to answer the questions below in reference to that same child.

<p>1 How often did you spank:</p> <p>With hand:</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>A B C D E F G</p> <p>With object (e.g., belt):</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>A B C D E F G</p>								
<p>2 How often did you slap:</p> <p>Face:</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>A B C D E F G</p> <p>Hand:</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>A B C D E F G</p>								

THANK-YOU for helping us by completing this questionnaire!

Please provide your name below if you would like to **enter a DRAW TO WIN \$50** for completing this questionnaire! **Name & Last Name:** _____

If you have attended all 3 seminars, please provide your name below if you would like to **enter THREE \$50 DRAWS for attending all seminars.**

Name & Last Name: _____



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Appendix G

Thank-you Letter

Date:

Dear _____,

Thank-you again for participating in my study about the parenting practices of parents of 2 to 6 year old children.

Here is the link to the Triple P Parenting program website should you wish to obtain parenting-related tips or information (www.triplep.ca). If you indicated you were interested in receiving a summary of the study's findings when you signed the consent form, please note this summary will be emailed to you once the project is completed. If you do not have access to email, the summary will be sent to the mailing address you provided.

Thanks again for participating and for allowing me to learn more from your experiences.
Sincerely,

Miriam Gonzalez B.A.(Hns Psyc), M.Sc., PhD (Candidate)
Applied Health Sciences Doctoral Program
Faculty of Graduate Studies
University of Manitoba

Appendix H

Study Summary for Participants (sent via email)

Dear _____,

Thank-you again for participating in my study about parenting for my doctoral research. The purpose of this research study was to learn about the parenting practices of mothers and fathers' of 2 to 6 year old children and the possible effects the Triple P seminar series may have on parental responses. There were a total of 27 participants. Below is a summary of the main findings:

- Parents reported using physical punishment less frequently after attending the seminars
- There was no significant difference in the average score of parental use of non-physical forms of punishment (withholding of privileges, penalties, and time-out) when responses were compared before and after attending the seminars.
- There was no significant difference in the average score of parental use of non-punitive parenting strategies (explain/teach, diversion, reward, monitoring, withdraw attention while problem behaviour occurs) when responses were compared before and after attending the seminars.

Results from this study:

- (1) Add to our knowledge about the effectiveness of the Triple P seminar series,
- (2) Are useful for parent education programs that aim to reduce frequency of parental use of physical punishment, and
- (3) Suggest that providing general information about parenting and effective parenting strategies through the seminars can reduce frequency of parental use of physical punishment.

Thanks again for participating!

Miriam Gonzalez B.A.(Hns Psyc), M.Sc., PhD (Candidate)
Applied Health Sciences Doctoral Program
Faculty of Graduate Studies
University of Manitoba

Appendix I

Summary Table of Measures and Total Score Calculations Used in the Present Study

Study Component	Outcome Variable	Measure	Total Score Calculation
Triple P Intervention	Physical Punishment	<ul style="list-style-type: none"> • Corporal Punishment scale of the Dimensions of Discipline Inventory (DDI) 	<ul style="list-style-type: none"> • A total score was calculated by summing scores on scale items
	Non-Physical Punishment	<ul style="list-style-type: none"> • Deprivation of Privileges scale of the DDI • Penalty Tasks and Restorative Behaviour scale of the DDI • Time-out item of the Diversion scale of the DDI 	<ul style="list-style-type: none"> • A total score was calculated by summing scores on items from all these scales
	Non-Punitive Parenting Responses	<ul style="list-style-type: none"> • Explain/Teach subscale, Ignore Misbehaviour subscale, Reward subscale, and Monitoring subscale of the DDI's Non-Punitive Discipline scale • Diversion item from the Diversion subscale of the DDI's Non-Punitive Discipline scale 	<ul style="list-style-type: none"> • A total score was calculated by summing scores on items from all these subscales
International Parenting Survey-Canada (IPS-C) Dataset	Coercive Parenting	Coercive Parenting subscale of the Parenting and Family Adjustment Scales (PAFAS)	<ul style="list-style-type: none"> • Total score was calculated by summing scores on scale items