

Exploring the association between parenting practices and aggressive behaviour in children

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Word Count:

Abstract: 150

Main Body: 7331

## **ABSTRACT**

This study is aimed at understanding the relationship between parenting and children's aggression, and the role of parental substance misuse in this association. The study examines how the following five dimensions of parenting are associated with aggression in children in Grade 1: positive parenting, involved parenting, poor monitoring and supervision, inconsistent discipline, and parent's use of corporal punishment. The participants were 65 parents of boys and girls between the ages of six and eight from a primary school in Cape Town, and their first-grade children. Parents were administered the Alabama Parenting Questionnaire to measure dimensions of parenting; the Alcohol, Smoking and Substance Involvement Screening Test to assess substance use; and the Child Behaviour Checklist to measure aggression in children. Results showed that substance misuse was positively associated with aggression. No significant association was established between involved parenting, positive parenting, corporal punishment, inconsistent discipline, poor monitoring and supervision and children's aggression.

*Keywords:* dimensions of parenting; parenting practices; aggression; childhood aggression; parenting and aggression; risk factors and parenting; protective factors and parenting

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## **Introduction**

Although violence is a well-researched area, there are few studies available that examine the relationship between parenting practices and the onset of aggressive behaviour in South African children.

The widespread nature of violence prior to South Africa's first democratic elections is largely attributed to society's reaction to decades of political, economic, and racial discrimination. Although the frequency of such violence is less common in contemporary South Africa, other forms of violence continue to plague communities in this country (Harsch, 2001). The latest crime statistics report that nearly a third of all cases are contact crimes, which include assault, murder, and sexual offences. Although specific crimes in this category have decreased since the 2003/ 2004 period, the overall rate of violent crime remains alarmingly high (Statistics South Africa, 2011). The South African Police Service regards a serious crime as that which occurs in excess of 10 000 cases per year, or 20 per 100 000 of the population. That the rate of all serious crime has increased by 2.6% since 1994 is a sobering indictment of how perilous the crime situation is, and that the 'fight against crime' is severely inadequate (Labone, 2011).

The literature has unequivocally established that parenting plays a pivotal role in children's development, and that poor parenting practices are thus a conduit through which children can develop aggressive behaviour (Baumrind, 1966; Patterson, Debaryshe, & Ramsey, 1990). Studies have acknowledged that the parent-child relationship is the most important framework for social learning and adaptation in preschoolers, and is a reliable predictor of children's internalising and externalising disorders (Trentacosta et al., 2008).

A study exploring the causes of youth violence revealed that although poor parenting practices reliably predict violent conduct in children, no information concerning parenting practices in South Africa was available at the time (Burton, 2007). As such, a search of the literature yielded little data on South African parenting and its relation to aggressive outcomes, hence the need for research in this area.

## **Dimensions of Parenting**

Parenting is a complex responsibility that comprises of different behaviours and dynamics, all of which operate within varying degrees to influence child outcomes. Developmental psychologists employ either a dimensional or a typological approach in the study of parenting (McNamara, Selig, & Hawley, 2010). Within the dimensional approach,

researchers assess different attitudes and philosophies held by parents and investigate how these separate elements influence behavioural outcomes in children. The typological approach clusters similar patterns of behaviour together, such as warm and nurturing, or detached and uninterested, and examines how these interrelate to influence children's behaviour.

Baumrind's typology, which consists of the permissive, authoritative, and authoritarian parenting styles, is synonymous with research related to the parent-child relationship (Baumrind, 1966). Parenting styles encompass two essential building blocks of parenting and represent a parent's normal pattern of behaviour and parenting values. The first building block is parental support and warmth that includes parents encouraging autonomy and self-regulation in their children. The second is behavioural control and refers to discipline, supervision and other behaviours required from a child within the family environment (Darling, 1999).

Although the typology of parenting styles remain valuable to parent-child research, focussing on specific dimensions of parenting allows for further investigation into specific behaviours (or a variety of specific behaviours) that are most significantly associated with conduct problems in children (Dadds, Maujean, & Fraser, 2003). Given that contemporary studies have focussed on the relationship between specific parenting behaviours and children's aggression (Prevatt, 2003), the dimensional approach was deemed appropriate for this study and is discussed below.

### **Inconsistent Discipline**

The setting of behavioural boundaries is an important step in early childhood socialization. When parents use inconsistent discipline or avoid practising adult authority, children are likely to be uncertain about rules and consequences and thus receive 'mixed messages' about which behaviours are acceptable and which are not (Crosswhite & Kerpelman, 2009). Parents also intensify children's uncertainty about behavioural expectations when they reward aggression towards peers, yet punish children's aggression when it is directed at family members (Deur & Parke, 1970).

Researchers distinguish between two forms of inconsistent discipline, the first is intraagent inconsistency, and occurs when parents mutually treat the same noncompliant behaviour differently each time the behaviour occurs. The second form of inconsistent discipline is interagent inconsistency, and takes place when mothers and fathers disagree on which form of disciplinary action to take each time a child misbehaves in a specific manner

(Sawin & Parke, 1979). As a result, children who experience a long-term pattern of inconsistent discipline are at a higher risk for acquiring an aggressive repertoire of behavioural responses that becomes highly resistant to punitive control.

In line with social learning theory, negative reinforcement results when parents rarely discipline poor behaviour or avoid it completely (Bandura, 1973). If this form of reinforcement perseveres, children who demonstrate aggressive behaviour without consequence and confrontation, learn that it is a suitable method to adopt in attempting to force specific outcomes from others (Crosswhite & Kerpelman, 2009). Consequently, children who use aggression in their peer relationships are at a higher risk of being rejected by their peers. Researchers have subsequently found that a combination of aggression and peer rejection increases the chance of children developing conduct disorders (Miller-Johnson et al., 2002).

Furthermore, throughout their phases of development, children learn from behavioural models put forward by their parents. Through modelling reinforcement, children learn not only from behaviour directed towards them but also from observing how parents treat others and how they behave in different social situations.

An essential component to healthy child development is the ability of parents to approach discipline in a warm, considerate and rational manner. Although it is unclear how parental sensitivity and discipline relate to each other to influence children's behaviour, previous research has established a relationship between these two dimensions of parenting and aggression in children (Alink et al., 2009).

### **Effective Discipline**

In the public domain, discipline is often construed as being synonymous with punishment, power assertion, and control. However, effective discipline is a positive parenting technique aimed at shaping acceptable behaviour in children and promoting positive engagement with others (Stein & Perrin, 1998). Through effective discipline, children cultivate empathy towards others and learn self-discipline. In addition, before acting on an urge or feeling, children learn to consider the repercussions of a future action (for themselves and others) and are thus more likely to conduct themselves in a socially acceptable manner.

The ability to weigh consequences, and self-regulate behaviour supports healthy relationships and social acceptance, and thereby decreases the risk of children developing conduct problems. Furthermore, effective discipline builds a child's self-respect, teaches

children to respect others, and assists in building a mutually respectful relationship between parent and child (Durrant, 2007).

To illustrate, a sample of 6 year-olds with existing conduct problems participated in a pilot intervention programme called the SPOKES project, aimed at reducing ineffective parenting, behavioural problems, ADHD symptoms, and low literacy. Parents whose children scored highest on these four predictors underwent further interviews and received training to use healthier forms of reprimand, and were encouraged to recognize and reward good behaviour. Parents actively participated in the literacy programme and social workers offered guidance on how to assist children when they made mistakes during tasks. On completion of the project, parents reported using calmer discipline and less corporal punishment. Overall, children demonstrated a 20% reduction in antisocial behaviour; this, however, did not change within the school environment (Scott et al., 2010).

Unlike its negative counterpart, positive discipline encourages autonomy within children and elevates their competence and assurance when faced with challenging situations in the external environment (Durrant, 2007).

### **Corporal Punishment**

Corporal punishment is an ineffective form of discipline that has long since fallen out of favour with developmental psychologists, and is characterised by smacking, pinching, or shaking children in an attempt to gain behavioural control (Children's Aid Society, 2003).

Harsh discipline includes verbal communication intended to humiliate, deride, and criticise children (Deater-Deckard & Dodge, 1997). When parents use these forms of discipline, they construct unstable and inadequate frameworks for social learning and can cause great damage to a child's sense of achievement and self-worth. For instance, when treated with consistent ridicule by parents, a child can eventually come to believe that he is not good enough and can thus learn to mistrust parental authority. Perhaps the most dangerous disadvantage of physical discipline is that when meted out in anger, parents risk losing control of their actions and emotions. In such situations, the initial aim of enforcing discipline can evolve into intentional harm, which if left uncontrolled, can transform into physical abuse.

A longitudinal study that followed a sample of 807 mothers of children between 6 and 9 years-old over a period of eight years, found that the more mothers used corporal punishment, the more their children resorted to antisocial behaviour (Straus, Sugarman, & Giles-Sims, 1997).

Separate studies established that children's use of physical aggression mounted in relation to their mother's excessive use of power-assertion, and that power-assertive forms of discipline correlated positively with the aggressive manner in which children exercised relational intent towards peers (Hart, DeWolf, Wozniak, & Burts, 1992; Joussemet et al., 2008).

Although corporal punishment may sometimes end a child's angry outburst, the long-term consequences are damaging. Consistent physical punishment teaches children that violence is acceptable; it raises a child's level of anxiety and incites a desire for vengeance. Children of parents who engage in corporal punishment develop an inability to control negative feelings and aggressive impulses, and demonstrate higher levels of externalizing aggression (Kawabata, Alink, Tseng, Van Ijzendoorn, & Crick, 2011). Furthermore, harsh discipline, together with cold and uncaring parenting teaches children that aggression is an acceptable problem solving strategy.

Harsh discipline can give rise to coercive relations between parent and child (Crosswhite & Kerpelman, 2009). Coercion is an antagonistic 'tug of war' like behavioural exchange and is demonstrated when a parent uses aggression to force a specific response from a child, who in turn responds with hostility. The coercion process is the continuation of a hostile exchange until one party ceases responding. To illustrate, this process may occur when a parent's attempt at discipline is met with a child's aggressive outburst; as the parent's efforts escalate, so too does the child's, until the parent eventually stops reacting.

When the process of coercion becomes a common feature in the parent-child relationship, children often develop a pattern of aggression that can over time manifest into a serious conduct disorder (Shelton, Frick, & Wootton, 1996).

### **Positive and Involved Parenting**

The literature describes parental involvement as the extent to which parents participate in various aspects of their children's lives, and distinguishes between negative and positive involvement. As such, researchers often refer to positive parenting and parental involvement collectively in the examination of children's aggression (Finley, Mira, & Schwartz, 2008).

Positive parenting techniques are characterised by warm, nurturing, and supportive behaviour towards children, and espouses the tenets of effective discipline, the rights of children and healthy child development (Durrant, 2007). Previous studies have found that an absence of parental warmth in addition to rigid discipline, a lack of positive parental



involvement and insecure attachment increase the prognosis for later conduct problems in children (Sanders, 1999).

Attachment theory emphasizes the importance of parental emotional sensitivity to effectively interpret and respond to the needs of the child. The more stable the bond between parent and child, the more likely it is that a child will regulate conduct towards others in an empathetic manner (Bowlby, 1969).

Based on the positive results of previous interventions, researchers propose that positive parental involvement is very likely to serve as a protective factor against children developing aggressive behaviour (Trentacosta et al., 2008).

For instance, in a study examining the relationship between parenting practices and externalising behaviour in a sample of 5-year-old children from Gauteng, Latouf (2008) found that warm and nurturing parenting resulted in better social adjustment and positive behaviour in boys and girls, whereas harsh parenting strongly influenced aggressive outcomes and manifested more frequently in boys than girls. The researcher speculated that boys might demonstrate more overt aggression than girls do because they experience more corporal punishment.

Similarly, results from a two-year trial intervention programme found that a decrease in harsh parenting practices together with improved response and caring practices, accounted for 40% of the positive intervention effect on children's aggression (Brotman et al., 2009).

When children's positive efforts are recognized, parents are in effect rewarding and positively reinforcing constructive behaviour. Parents who praise children's positive behaviour, and explain the rationale behind why a particular behaviour is unacceptable, foster the development of self-esteem, autonomy, and set the foundation for positive peer relations (Stein & Perrin, 1998).

### **Uninvolved Parenting and Poor Monitoring and Supervision**

Parents who are physically present but yet largely uninvolved in their children's lives, construct a gap in the parent-child relationship characterised by emotional isolation and as a result, children are placed at risk for internalising feelings of rejection (Crosswhite & Kerpelman, 2009). In the absence of parental guidance, children have little choice but to 'manage' their own behaviour, and older children are oftentimes compelled to adopt the parenting role towards their younger siblings. As such, children operate within uncertain boundaries and are at a greater risk for developing social, psychological, and emotional problems.

Durrant (2007) compares effective monitoring and supervision to a 'map' that children can draw from when they need guidance. When parents are constructively involved in their children's education, take an interest in their friends, and are supportive and involved in extracurricular activities, children are more likely to develop a firm sense of self-worth. In contrast, if a parent's involvement is authoritarian and intrudes on a child's growing autonomy, children are more likely to rebel or withdraw.

Apart from studies examining the relationship between specific parenting practices and children's aggression, researchers also acknowledge that parenting does not occur in isolation, and therefore factors such as parental substance misuse may contribute to the development of aggression in children.

### **Substance Use**

Although studies have linked parental substance misuse to poor outcomes in children, researchers caution against assuming that substance misuse will automatically lead to poor parenting (Scaife, 2008). However, parents who abuse drugs or alcohol are at a higher risk for maltreating or neglecting their children, particularly when substance use takes precedence over every other aspect of a parent's life, including that of parenting children (Edwards, 1999).

Parents who misuse substances are less likely to take proper care of children's basic needs, and are more likely to be emotionally unavailable (Barnard & McKeganey, 2002). In addition, substance-using parents are less likely to monitor, supervise, and be closely involved with their children, which creates the opportunity for children to engage in activities that are detrimental to their physical and psychological wellbeing.

In addition, studies have also established that drug-using mothers tend to adopt a punitive and controlling approach to parenting, which previous research has associated with aggressive outcomes in children (Kawabata et al., 2011; Scaife, 2008).

Furthermore, and in line with social learning theory, since substance abusers often display aggressive, manipulative, cold, and selfish behaviour, parents with such issues put forward many poor behavioural models from which children learn.

### **Rationale for Research**

Little knowledge is available regarding the behaviour of parents in Cape Town. Researchers have accumulated a large body of work to conclude that parenting indeed matters, and that various dimensions of parenting play a pivotal role in determining how and what children learn, and how this manifests in children's behaviour and subsequent relationships (Patterson et al., 1990).

Some may speculate that no matter how good a parent's behavioural modelling is and no matter how nurturing and supportive parents are, environmental risk factors may outweigh good parenting so that children still develop behavioural problems. Although we are aware of South Africa's high frequency of violence and violent crime, we do not know whether parenting plays a role in the development of such outcomes and if it does, to what extent this may be.

This study has aimed to identify the contribution of parenting to children's aggression, to identify which parenting practices (if any) are associated with children's aggression, and to explore whether parental substance misuse plays a role in this relationship.

The following hypotheses are examined in this study:

1. Involved parenting will be negatively associated with aggression
2. Positive parenting will be negatively associated with aggression
3. Inconsistent discipline will be positively associated with aggression
4. Poor monitoring and supervision will be positively associated with aggression
5. Corporal punishment will be positively associated with aggression
6. Substance misuse by parents will be positively associated with aggression

## **METHODS**

### **Research design and setting**

The research design is correlational and cross-sectional. The study was conducted at a primary school located in a historically Coloured area in Cape Town

### **Participants**

The primary caregivers of all the English-speaking children in Grade 1 at this particular school were invited to participate in this study.

One hundred and fifteen parents were approached and although 72 parents initially consented (please see Appendix A); six refused at the time of the interview, and one was excluded from analyses because questionnaire responses were deemed too repetitive within specific questionnaires, and too inconsistent between questionnaires that measured similar behaviours. Because this participant appeared to be using a response set throughout the interview, her responses were excluded because it may have either overestimated or underestimated the occurrence of specific behaviours, thereby threatening the criterion of questionnaires (Mazor, Clauser, Field, Yood, & Gurwitz, 2002).

The sample for this study therefore comprised of 65 primary caregivers who reported on their own parenting behaviours and the behaviour of their children.

### **Measures**

#### **The Alabama Parenting Questionnaire**

The Alabama Parenting Questionnaire (APQ) consists of 42 items that contain statements of parenting behaviours (Shelton et al., 1996). The response options are presented in a Likert-type format, and participants were required to rate how often the behavior typically occurred by selecting possible answers ranging from '1 = Never to 5 = Always'.

The APQ (please see Appendix B) measures five dimensions of parenting and consists of the following five sub-scales: (1) positive parenting, (2) involved parenting, (3) inconsistent discipline, (4) poor monitoring and supervision, and (5) corporal punishment. The APQ contains seven additional items that do not make up a scale but describes specific discipline practices such as, "You use a time out as a punishment".

Numerous studies have demonstrated that the APQ has high criterion validity, internal consistency, and test-retest reliability on each of its five subscales.

For instance, factors that influenced selection of the APQ are the strength of the association between self-report data and the direct observation of parent-child interaction (Hawes & Dadds, 2006). It is also sensitive to change: comparisons drawn between questionnaire results recorded both pre and post parent-training show significant changes in all dimensions of parenting. Furthermore, each dimension correlated with data produced from parent reports detailing their child's misconduct, which added confidence to the external validity of the APQ (Hawes & Dadds, 2006).

A study in Vermont, USA, examined the behaviour of children between the ages of 6 and 18 years, and all five parenting scales produced high internal consistency measures, with Cronbach's alphas ranging between 0.82 and 0.91 (Albaugh et al., 2010). Another study that set out to examine the psychometric properties of a German translation of the APQ recruited 1,219 children between the ages of 10 and 14 years (Essau, Sasagawa, & Frick, 2010). The results of exploratory and confirmatory factor analysis determined that a five-factor scale is a suitable fit for the data, and alpha levels of reliability exceeded 0.70. In South Africa, a recent study conducted with 302 participants in a rural, largely Coloured area, has found Cronbach's alphas all over 0.7 (C. L. Ward, personal communication, October 19, 2012).

After reading through all questions, only one minor adjustment was made. Item 15 was changed from, 'You drive your child to a special activity' to 'You take your child to a special activity'. This question was changed because parents who do not drive are likely to use public transport or accompany their children on foot, and it was thus thought that leaving the question in its original format may have elicited an inaccurate response.

### **The Achenbach Child Behavior Checklist (CBCL)**

The CBCL (please see Appendix D) consists of eight scales that measure internalising and externalising problems in children and adolescents (Achenbach & Rescorla, 2001). The externalizing problem scale was administered within this study and consists of two Likert-like subscales, 'Rule-breaking behaviour' and 'Aggressive behaviour'. The Rule-Breaking Behaviour sub-scale contains 17 items and responses were recorded on a continuum of 0 = Not true, 1= Sometime true and 2= Often true; statements included items such as "Your child hangs around with others who get into trouble". The Aggressive Behaviour sub-scale consists of 18 items and required responses to statements such as "Your child physically attacks people".

The CBCL's normative sample consisted of 4994 American children from Caucasian, African American, Latino and 'Other' backgrounds (Achenbach & Rescorla, 2001).

Results from a study conducted on African American youth produced a high Cronbach's alpha of 0.94 for internal consistency and high correlations between 0.80 and 0.90 for test-retest reliability (Jastrowski, Davies, Klein-Tasman, & Adesso, 2009).

### **The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST)**

The World Health Organization developed the ASSIST (please see Appendix C) to assess problematic substance use and general health care problems that stem from substance misuse (WHO ASSIST Working Group, 2002). The ASSIST screens for 10 different substances and because methaqualone misuse is prevalent on the Cape Flats, this substance was added to the questionnaire. The ASSIST consists of eight questions per substance (six of which are used to calculate substance risk for individual substances); four items are on a Likert-like scale with answer options ranging from 0 = never to 4 = daily or almost daily and the remaining four questions are coded on a 'yes/no' basis.

The first phase of reliability testing was carried out in 1997 and the second phase between 2000 and 2002. Questionnaire items were tested across the following countries to ensure that reliability was measured within diverse cultural contexts and across different substance use patterns: Australia, Brazil, India, Ireland, Israel, the Palestinian Self-Rule Areas, Puerto Rico, the United Kingdom, Northern Ireland and Zimbabwe. The test-retest reliability produced Kappa coefficients between 0.58 and 0.9, and as such, the ASSIST is deemed a highly reliable measure of substance use (WHO ASSIST Working Group, 2002).

### **Socio- Economic Status (SES)**

Studies have found that low SES in childhood is indicative of poor health outcomes across developmental domains, the effects of which can persist from birth through to adulthood (Bradley & Corwyn, 2002; Sheppard, Norris, Pettifor, Cameron, & Griffiths, 2009). Furthermore, studies have established associations between low SES and aggressive outcomes in childhood (Nagin & Tremblay, 2001; Demosthenous, Bouhours, & Demosthenous, 2002).

We used a 15-item household inventory, which is based on the Community SES Questionnaire (University of the Witwatersrand, n.d.) and the Census@School survey (Statistics South Africa, 2009). A total SES score is produced by adding all the items

participants have selected; the higher the SES total, the higher the participant's SES (please see Appendix E).

### **Data Analysis**

All data was analyzed using IBM SPSS Version 20.0. Simultaneous regression was used to determine which of the five dimensions of parenting significantly predict aggression in children. Because boys are more prone to aggressive behavior than girls are (Carlo, Raffaelli, Laible, & Meyer, 1999), gender was one of two covariates controlled for in each regression model. Because children from a lower SES backgrounds tend to demonstrate more aggression (Sheppard et al., 2009), SES was added as the second covariate.

Prior to analyzing the multiple regression models, all data were inspected to examine whether the parametric assumptions of normality, linearity, constant variance and independence were met.

Both Positive Parenting (skewness = -2.204, kurtosis = 6.984) and Poor Monitoring and Supervision (skewness = 3.618, kurtosis = 12.562) were skew and kurtotic. Although I sought to improve both independent variables by using square root and log transformations, these still did not adequately improve skewness and kurtosis. However, because multiple regression is robust to these violations, I continued with the analyses (Tabachnick & Fidell, 1996).

### **Procedure**

All measurements were piloted on two English speaking parents beforehand to ensure that questions were properly understood.

Parents were interviewed at one of four locations: a classroom on the school premises, in their homes, at a community library or their place of work. Interviews at all locations were conducted in a private space.

Because the researchers administered questionnaires, the literacy levels of parents were irrelevant. Questionnaires were administered with two researchers present, largely to ensure the safety of the researchers. On completion of the interview, participants were thanked and handed an information sheet with contact numbers for organizations that assist in treating problems associated to the problem behaviours measured by the questionnaires. As a token of gratitude, participants were presented with a grocery store shopping voucher to the value of R50.00.

**Ethical Considerations**

Ethical approval for this study was granted by the Ethics Committee of the University of Cape Town's (UCT) Department of Psychology as part of a larger research study. Permission was obtained from the Western Cape Education Department (WCED) and the school principal. Written consent was received from all participants. This study carried minimal risk for participants.

Before commencing the interview parents were reminded that all responses and their and their child's identities would be kept confidential. It was reiterated that in no way would they or their children be prejudiced if at any stage of the interview process they elected to withdraw. Parents who chose to be interviewed in the company of their children were gently informed and shown examples of questions that may be deemed 'sensitive', after which they were able to choose whether or not their children should be present. In practice, although the majority of these parents were content to have their children observe, most children would not remain in the room for the complete duration of the interview.



## RESULTS

### Participant Demographics

The mean age of parents was 35.95 years (range: 19 - 71, SD = 9.51). Only one primary caregiver per child was eligible to participate, and although we did not specify which parent we preferred to interview, more females (n=62) than males (n=3) were interviewed.

Participants were related to the children as follows: 92.3% of primary caregivers were biological parents, 6.2% were grandparents and 1.5% was extended family members.

The employment status of participants was as follows; 58.3% were employed, 26.4% of mothers did not work outside the home, 2.8% were unemployed, 1.4% were pensioners and 1.4% were unpaid volunteer workers.

### Aggression

The CBCL scores were scored to provide T-scores: T-scores up to 59 fall within the normal range of aggression, while borderline scores range between 60 and 63. T-scores that exceed 63 fall within the clinical range, which indicates a need for clinical care. CBCL ratings of aggression are described in Table 1 below.

With an alpha of 0.87, the complete 35 item 'Externalizing Problems' scale in this study produced a good value of internal consistency, which compared favourably to the alpha of 0.94 produced in the normative study (Achenbach & Rescorla, 2001).

Table 1

*CBCL Status of Aggression*

(n = 65)

Gender	Normal	Borderline	Clinical	Total
Male	12	7	8	27
% of boys	44.4%	25.90%	29.60%	100%
Female	18	6	14	38
% of girls	47.40%	15.80%	36.80%	100%
Total Count	30	13	22	65
Total %	46.20%	20.00%	33.80%	100.00%

### Involved Parenting

Parents in this population used corporal punishment as a means of discipline but were also highly involved in their children's day-to-day activities.

Although the 'Involved Parenting' scale consists of 10 items, the statements, "You talk to your child about his/her friends" and "You attend PTA meetings, parent/teacher conferences, or other meetings at you child's school" were found to be a poor reflection of parental involvement in this population. Once these two items were removed, a Cronbach's alpha of 0.667 was obtained. An alpha value of 0.6 to 0.7 is considered to be within the lower limit of acceptability (Hair, Anderson, Tatham, & Black, 1998). In the regression analysis, Parental Involvement was not found to predict aggression.

Table 2

#### *Involved Parenting Items*

	Never	Seldom	Sometimes	Often	Always	Total
Friendly talk with child	1	3	7	22	32	65
Volunteer with special activities	1	4	12	19	29	65
Play games and do other fun things	-	5	17	21	22	65
Ask child about day in school	1	1	-	13	50	65
Help child with homework	-	3	4	9	49	65
Ask child about plans for day	9	9	20	12	15	65
Take child to special activity	5	7	16	15	22	65
Child helps plan family activities	7	12	17	14	15	65
Scale Mean =						
31.71						
n = 65						

### Positive Parenting

A Cronbach's alpha of 0.720 was obtained for this subscale. In the regression analysis, Positive Parenting did not significantly predict aggression.

Table 3

*Positive Parenting Items*

	Never	Seldom	Sometimes	Often	Always	Total
Let child know he/she's doing a good job	-	2	7	10	46	65
Reward child for obeying you	3	4	21	19	18	65
Compliment child when he/she behaves well	1	-	3	17	44	65
Praise child if he/she behaves well	1	2	6	16	40	65
Hug or kiss child when he/ she does something well	-	3	-	18	44	65
Tell child you like it when he/she helps around the house	2	-	5	14	44	65
Scale Mean = 26.37						
n = 65						

**Inconsistent Discipline**

The 'Inconsistent Discipline' scale originally contained six items but owing to a poor alpha value, the item "You feel that getting your child to obey you is more trouble than it's worth" was removed. The alpha subsequently improved to 0.612, meeting the criteria for a lower level of acceptability (Hair et al., 1998).

Inconsistent Discipline was not a significant predictor of aggression.

Table 4

*Inconsistent Discipline Items*

	Never	Seldom	Sometimes	Often	Always	Total
Threaten to punish child but don't	8	3	31	10	13	65
Child talks you out of being punished	14	8	19	13	11	65
Let you child out of punishment early	14	7	32	7	5	65
Child not punished when he/she does wrong	23	15	21	6	-	65
Punishment you give depend on your mood	27	8	19	6	5	65
Scale Mean = 13.42						
n = 65						

**Poor Monitoring and Supervision**

The 'Poor Monitoring and Supervision' scale consists of 10 items but yielded a poor alpha value. Eight items were removed and the remaining two produced an alpha of 0.708.

Only the following items were retained, “Your child is out with friends you don’t know” and “Your child goes out without a set time to be home”.

Poor Monitoring and Supervision did not significantly predict aggression.

Table 5

*Poor Monitoring and Supervision Items*

	Never	Seldom	Sometimes	Often	Always	Total
You child is out with friends you don't know	59	2	3	1	-	65
Child goes out without a set time to be home	62	1	2	-	-	65
Scale Mean = 2.25						
n = 65						

**Corporal Punishment**

With just three items making up the Corporal Punishment scale, its alpha value was a poor 0.501. Although running an exploratory factor analysis (EFA) on the APQ items could have determined whether the three items in this sub-scale were measuring the same variable, an EFA was deemed inappropriate for this data because of its small sample size (n = 65). However, because the inter-item correlations were low, the three items were used as individual constructs and measured how often parents ‘slapped’ their children, ‘yelled’ at their children and ‘spanked’ their children.

None of the three items significantly predicted aggression.

Table 6

*Corporal Punishment Items*

	Never	Seldom	Sometimes	Often	Always	Total
Spank child with hand M = 2.31	20	12	29	1	3	65
Slap child M = 1.52	44	9	11	1	-	65
Yell or scream at child M = 3.08	7	8	31	11	8	65
n = 65						

**Substance Misuse**

The substances positively screened for in this population produced the following alphas: (1) alcohol = 0.798, (2) amphetamines = 0.600, (3) other drugs = 0.750, (4) tobacco = 0.791, and (5) sedatives = 0.885.

The regression model predicting children's aggression from parents' overall Substance misuse was statistically significant,  $F(3,60) = 2.984, p = .038$ .

Table 7

*Regression Analyses of Aggression*

	$\beta$	SE	t	p
Constant		8.18	1.744	0.086
Substance Misuse	0.334	0.074	2.732	0.008
Child's Gender	0.066	1.993	0.523	0.603
SES	-0.101	0.534	-0.808	0.422
R <sup>2</sup> = .130 ( $p=.038$ )				
n = 64				

## DISCUSSION

This study set out to examine the relationship between parenting practices and aggression in children. The main findings conclude that involved parenting, positive parenting, inconsistent discipline, poor monitoring and supervision, and corporal punishment were not significant predictors of aggression. However, the analyses did establish that substance misuse by parents was a significant predictor of aggression.

### Aggression

In contrast to previous findings, the number of children who scored within the clinical range of aggression in this population was overrepresented. For instance, a study in Uganda compared its results to scores from the CBCL's normative high scoring group in multicultural populations (Bangirana et al., 2009): The mean score for participants in the Ugandan study was,  $\mu = 4.4$  ( $SD = 3.2$ ) and the mean score produced in the CBCL's normative group was  $\mu = 3.1$  ( $SD = 3.3$ ). In comparison to these results, the mean score for aggression in this study was comparatively high,  $\mu = 12.8$  ( $SD = 7.85$ ).

Previous research has found that boys typically display more aggression than girls do (Carlo et al., 1999; Rothbaum & Weisz, 1994), and a surprise finding in this study is that more girls ( $n = 14$ ) than boys ( $n = 8$ ) fell within the clinical range.

Even though it must be conceded that more girls than boys participated in this study, the gender proportion is worth noting in that 36.8% of girls versus 29.6% of boys were clinically aggressive. It may also be worth mentioning that some parents in this study lived in poor neighbourhoods that were frequently disrupted by incidents of violence, which resulted in parents limiting the amount of time their children spent outdoors. Parents themselves speculated whether their children were more aggressive because their extracurricular activities were strictly limited.

The above suggests that parenting practices may not be the problem in this population, and that perhaps an accumulation of risk factors such as community instability, overcrowded homes and prevailing financial hardship contribute to children's aggression instead.

Given that previous research has found an association between parenting practices, the presence of cumulative risk factors, and children's aggression (Trentacosta et al., 2008), a future study should examine whether the same association is found in South African communities.

## **Substance Misuse**

In line with previous research, this study confirmed the association between substance misuse by parents, and aggression in children (Kandel, 1990).

Previous studies have found that substance misuse by fathers affects children's aggression more so than mothers' misuse, and that children of fathers who misuse non-alcoholic substances exhibit higher rates of antisocial behaviour and conduct disorders (Kelley & Fals-Stewart, 2004). Consistent with Bandura's (1973) social learning theory, it is speculated that fathers who misuse non-alcoholic substances may exhibit violent and abusive behavior while intoxicated, which through behavioural modeling may influence aggressive outcomes in children (Scaife, 2008).

Since this study focussed on the direct relationship between parental substance misuse and children's aggression only, further research is required to determine how and to what extent substance misuse and parenting practices interact to influence aggression in children (Bailey, Hill, Oesterle, & Hawkins, 2009).

## **Involved Parenting**

Given the age of children in this study, it was not unexpected that the majority of parents were highly involved in their children's lives. With a maximum score of 40, the mean score for this subscale was high,  $\mu = 31.71$ . Although a significant association between involved parenting and aggression was not found, this result may be due to the small sample size ( $n = 65$ ) or because two of the scale items were removed.

Previous research has examined the association between children's aggression in peer relationships and its association with family interaction and specific parenting practices. Although results vary and were dependent on the strength of existing risk and protective factors, the majority of the literature reviewed suggests that children of parents who are more positively involved demonstrate fewer problems with aggression (Hart, Nelson, Robinson, Olsen, & McNeilly-Choque, 1998).

Children of parents who are positively involved show stable patterns of social interaction and are more prone to use socially acceptable problem-solving skills in peer relationships. On the other end of the spectrum, children of parents who are highly negatively involved and control their children by manipulative means, tend to engage in delinquent behaviour and overt aggression (Chang, Schwartz, Dodge, & McBride-Chang, 2003).



From parent's feedback during the interview session, two questions appeared inappropriate for this study, and weakens confidence in the APQ's ability to adequately measure involved parenting in this population. Because most parents work full time and in some cases overtime, they are unable to attend school meetings regularly and thus the item, "you attend PTA meetings, parent/teacher conferences, or other meetings at your child's school" was answered with some caution. Parents added that they usually followed up a 'missed' meeting with a telephone call to the teacher, and in some instances, teachers would send notes home.

"Your child helps plan family activities" also presented a problem in that both parents generally planned activities together, and with input from their older and not younger children.

### **Positive Parenting**

Positive parenting practices have been linked to better emotional regulation in children, and as with positive parental involvement, this decreases the probability that children will resort to aggression as a means of solving relational disputes.

In contrast to previous findings that parental warmth and responsiveness towards children are inversely associated with aggression, the result in this study did not establish a significant relationship between positive parenting and aggression (Hart et al., 1998). This however, may be due to an overlap with parental involvement because some of the literature examines positive and negative parenting practices as an element of parental involvement (Prevatt, 2003; Simons, Johnson, & Conger, 1994).

### **Inconsistent Discipline**

Although the result in this study was inconsistent with previous research, numerous studies have established an association between erratic discipline and children's aggression and delinquency, but this has been more evident in boys than girls (Patterson et al., 1990). In addition, research has shown that children demonstrate more aggression when one parent is punitive and the other permissive (Sawin & Parke, 1979).

In line with the coercion model of aggression, parents with poor parenting skills are more likely to inconsistently discipline their children, and when this occurs, parents inadvertently teach children to respond to negative behaviour from others with increasing aggression in return (Crosswhite & Kerpelman, 2009).

Because past studies have linked coercion and inconsistent discipline to aggression in children, considerably more work will need to be done in order to ascertain whether the same association exists among South African families.

### **Poor Monitoring and Supervision**

Previous studies have found a positive association between poor monitoring and supervision and increased levels of aggression in children (Griffin, Botvin, Scheier, Diaz, & Miller, 2000). Despite this trend, results in this study did not support this hypothesis.

As with three other APQ subscales, poor monitoring and supervision was a poor measure of the variable in this population. A number of questions in this subscale were problematic. For instance, “You don’t check that your child comes home at the time she/he was supposed to” was deemed irrelevant by the majority of parents because parents themselves collected children from school and aftercare, or had a set arrangement with another caregiver. Similarly, the item, “Your child fails to leave a note or to let you know where he/she is going” was inappropriate because many children were not allowed to leave home or aftercare of their own volition. Because of the unstable neighbourhood characteristics of one suburb in particular, parents were very cautious about when and where their children were allowed to visit. As such, the APQ was an inadequate measure of poor monitoring and supervision.

### **Corporal Punishment**

The relationship between aggression and corporal punishment has been widely examined in the literature, and many studies have associated higher frequencies of corporal punishment with increasing aggression in children (Gershoff, 2002; Stormshack, Bierman, McMahon, & Lengua, 2000). Researchers have further ascertained that not only is it corporal punishment that influences aggression, but also the manner in which punishment is meted out. Children of parents who administer punishment while emotionally charged have been found to exhibit more aggression than children of parents who mete out punishment while emotionally controlled (Gershoff, 2002; Knutson, DeGarmo, Koepl, & Reid, 2005).

However, other studies have suggested that the relationship between corporal punishment and children’s aggression may not be as clear-cut, and that some children are naturally predisposed to aggression. In this instance, parents respond to children’s aggression with physical discipline in order to stop the unmanageable behaviour (Muller, Hunter, & Stollak, 1995), and in this way, corporal punishment is not the ‘cause’ of children’s

aggression but rather a parent's response to the child's noncompliant behaviour. However, more research is needed to determine if parents in this country use corporal punishment as a means of controlling children's inherent aggression, in addition to understanding what this implies for future interventions.

Despite the association found in previous research, no significant relationship was established between corporal punishment and aggression in this study. Because this subscale demonstrated poor reliability and only consisted of three poorly correlated items, it does indicate that this APQ subscale is an insufficient measure of corporal punishment.

Furthermore, given that 44.6% of parents spanked, 16.9% slapped, and 47.7% yelled or screamed at children from time to time, a positive association with aggression was expected. That 33.8% of children in this population met the clinical criteria for aggression problems also gives impetus to the notion that this APQ subscale is problematic, i.e., that the association probably does exist in this sample but that corporal punishment was not adequately assessed using this scale.

### **Limitations and Directions for Future Research**

Although this study established no significant relationship between specific parenting practices and aggression in children, it is suspected that the small sample size was a contributing factor, in addition to shortcomings in the Alabama Parenting Questionnaire.

An important consideration for future research is that mothers and fathers often have a very different perspective of their child's behaviour. This became evident when we interviewed mothers in the presence of their husbands, and indicates that because mothers and fathers may parent differently, it is crucial to consider input from both parents so that specific elements of the mother-child and father-child dyad can be compared in relation children's behaviour (Craig, 2006; Kwon, Jeon, Lewsader, & Elicker, 2012).

## **CONCLUSION**

Despite the absence of significant associations between parenting practices and aggression in children in this study, results have drawn attention to the need for much more research in this area. The positive association between parents' substance misuse and children's aggression emphasizes an urgent need for the treatment of drug and alcohol abuse, and highlights the need for psychosocial support to families experiencing this difficulty. Research continues to affirm that aggressive children are at a higher risk for developing conduct disorders, and that these disorders, if left untreated, can manifest into later delinquency and violence. In view of the pervasive violence in South Africa, it is therefore imperative that future research undertakes to identify the root causes and risk factors that contribute to violence in our society. It is also vital that future research identify the factors that protect children from developing serious problems with aggression, so that this information can be used to develop new intervention programmes or strengthen the efficacy of current ones.

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## **Appendix A: Consent Form**

Dear Parent

### **Study Purpose**

You and your first-grade child are being asked to participate in a research study being conducted by researchers from the Department of Psychology at the University of Cape Town. The purpose of this study is to understand which factors influence children's development.

### **Study Procedures**

If you decide to participate in this study, you will be giving permission for both you and your child to take part in the research. You will be interviewed for approximately 60 minutes. The interview will include questions about when you were pregnant with your first-grade child (what you ate and drank, and whether you used drugs or alcohol), the way you parent now, and your behaviour.

Your child will be assessed at school. Their height and weight will be measured. We will also be looking at how they perform on tests that predict how they will succeed in school and in getting along with others. They will be assessed over two 60 minute sessions and breaks can be taken whenever they need them.

### **Possible risks and benefits**

There are no real risks involved in this study. You may find some questions about your substance use a little embarrassing. The interview will be kept absolutely confidential by the research team, and you will not be identified in any reports. You will be compensated with a R50 cell phone/ supermarket voucher for your time. Your child may become a little tired during the assessments, but he/ she will be encouraged to take breaks whenever needed. In our experience, most children enjoy these assessments. Your child will be provided with refreshments during the assessment as well as a toy upon completion. In the event that we should find your child to be at risk for any developmental disorder, we will notify you and refer you to the appropriate resources.

**Alternatives**

You may choose not to participate in this study. Your decision will not affect you or your child's relationship with the school in any way.

**Voluntary Participation**

Participation in this study is completely voluntary. You are free to refuse to answer any question. You are free to change your mind and discontinue participation at any time without any effect on your relationship with the school.

**Confidentiality**

Information about you and your child for this study will be kept confidential. You and your child's consent form and other identifying information will be kept in locked filing cabinets or on password protected computers. The information obtained will not be disclosed to anybody else but the researchers involved. Any reports or publications about this study will not identify you or any other study participant.

**Questions**

Any study-related questions or problems should be directed to the following researchers:

Dr. Catherine Ward

Dr. Susan Malcolm-Smith

Ms. Rosalind Adams

Questions about your rights as a study participant, comments or complaints about the study may also be presented to Ms. Rosalind Adams.

Please fill out the last page and send it back to the primary school. You are welcome to keep the first two pages.

\*To be filled out and sent back to the primary school

I have read the consent form and am satisfied with my understanding of the study, its possible risks, benefits and alternatives. I hereby voluntarily consent to the participation of me and my child in the research study as described.

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Signature of participant (parent)

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Date

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Name of participant

Witness

Please tick the options that are most convenient for you:

- I prefer that the researchers interview me at home

Interview time at home:

- Morning (8am – 1pm)
- Afternoon (1pm – 5pm)
- Evening (5pm – 8pm)

- I prefer to come to the school for my interview

Interview time at the school:

- Morning (8am – 12pm)
- Afternoon (12pm – 5pm)

My home telephone number: \_\_\_\_\_

My home address:

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## Appendix B: The Alabama Parenting Questionnaire

Page 1/3						
<b>Alabama Parenting Questionnaire</b>						
Child's Name: _____		Birthdate: ____/____/____ Day      Month      Year				
Parent's Name: _____						
<p><b>Directions:</b> The following are a numbers of statements about your family. Please rate each item as to show how often it typically occurs in your home. The possible answers are Never (1), Almost never (2), Sometimes (3), Often (4), Always (5). PLEASE ANSWER ALL ITEMS.</p>						
		Never	Seldom	Sometimes	Often	Always
<b>1</b>	You have a friendly talk with your child	1	2	3	4	5
<b>2</b>	You let your child know when he/she is doing a good job with something.	1	2	3	4	5
<b>3</b>	You threaten to punish your child and then do not actually punish him/her.	1	2	3	4	5
<b>4</b>	You volunteer to help with special activities that your child is involved in (such as sports, boy/girl scouts, church youth groups).	1	2	3	4	5
<b>5</b>	You reward or give something extra to your child for obeying you or behaving well.	1	2	3	4	5
<b>6</b>	Your child fails to leave a note or to let you know where he/she is going.	1	2	3	4	5
<b>7</b>	You play games or do other fun things with your child.	1	2	3	4	5
<b>8</b>	Your child talks you out of being punished after he/she has done something wrong.	1	2	3	4	5
<b>9</b>	You ask your child about his/her day in school.	1	2	3	4	5
<b>10</b>	Your child stays out in the evening past the time he/she is supposed to be home.	1	2	3	4	5

<b>11</b>	You help your child with his/her homework.	1	2	3	4	5
Page 2/3						
<b>Alabama Parenting Questionnaire continued...</b>						
<p><b>Directions:</b> The following are a numbers of statements about your family. Please rate each item as to show how often it typically occurs in your home. The possible answers are Never (1), Almost never (2), Sometimes (3), Often (4), Always (5). PLEASE ANSWER ALL ITEMS.</p>						
<b>12</b>	You feel that getting your child to obey you is more trouble that it's worth.	1	2	3	4	5
<b>13</b>	You compliment your child when he/she does something well.	1	2	3	4	5
<b>14</b>	You ask your child what his/her plans are for the coming day.	1	2	3	4	5
<b>15</b>	You take your child to a special activity.	1	2	3	4	5
<b>16</b>	You praise your child if he/she behaves well.	1	2	3	4	5
<b>17</b>	Your child is out with friends you don't know.	1	2	3	4	5
<b>18</b>	You hug or kiss your child when he/she does something well.	1	2	3	4	5
<b>19</b>	Your child goes out without a set time to be home.	1	2	3	4	5
<b>20</b>	You talk to your child about his/her friends.	1	2	3	4	5
<b>21</b>	Your child is out after dark without an adult with him/her.	1	2	3	4	5
<b>22</b>	You let your child out of a punishment early (like lift restrictions earlier than you originally said).	1	2	3	4	5
<b>23</b>	Your child helps plan family activities.	1	2	3	4	5
<b>24</b>	You get so busy that you forgot where your child is and what he/she is doing.	1	2	3	4	5
<b>25</b>	Your child is not punished when he/she has done something wrong.	1	2	3	4	5
<b>26</b>	You attend PTA meetings, parent/teacher conferences, or other meetings at your child's school.	1	2	3	4	5

27	You tell your child that you like it when he/she helps out around the house.	1	2	3	4	5
----	--	---	---	---	---	---

### Alabama Parenting Questionnaire continued...

**Directions:** The following are a numbers of statements about your family. Please rate each item as to show how often it typically occurs in your home. The possible answers are Never (1), Almost never (2), Sometimes (3), Often (4), Always (5). PLEASE ANSWER ALL ITEMS.

28	You don't check that your child comes home at the time she/he was supposed to.	1	2	3	4	5
29	You don't tell your child where you are going.	1	2	3	4	5
30	Your child comes home from school more than an hour past the time you expect him/her.	1	2	3	4	5
31	The punishment you give your child depends on your mood.	1	2	3	4	5
32	Your child is at home without adult supervision.	1	2	3	4	5
33	You spank your child with your hand When he/ she has done something wrong	1	2	3	4	5
34	You ignore your child when he/she is misbehaving.	1	2	3	4	5
35	You slap your child when he/she has done something wrong.	1	2	3	4	5
36	You take away privileges or money from your child as a punishment.	1	2	3	4	5
37	You send your child to his/her room as a punishment.	1	2	3	4	5
38	You hit your child with a belt, switch, or other object when he/she has done something wrong.	1	2	3	4	5
39	You yell or scream at your child when he/she has done something wrong.	1	2	3	4	5
40	You calmly explain to your child why his/her behavior was wrong when he/she misbehaves.	1	2	3	4	5
41	You use time out (make him/her sit or stand in a corner) as a punishment.	1	2	3	4	5

42	You give your child extra chores as a punishment.	1	2	3	4	5
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## Appendix C: The Alcohol, Smoking and Substance Involvement Screening Test

### Substance Abuse –ASSIST

**Notes to interviewer:** For questions 264 to 270.

*Never:* refers to not used in the last 3 months. *Once or twice:* refers to using 1-2 times in the last 3 months. *Weekly:* refers to using 1-4 times per week. *Monthly:* refers to using 1-3 times in 1 month. *Daily or almost daily:* refers to using 5-7 days a week.

<b>Substance Abuse –ASSIST</b>						
<b>263</b>	<b>While you were pregnant, which of the following substances did you ever use? And Now?</b>	0 = NO	1 = YES	Current Use Y N		
	a. Tobacco (dried leaves of tobacco plant e.g cigarettes, snuff)	0 = NO	1 = YES	Current Use Y N		
	b. Alcoholic beverages	0 = NO	1 = YES	Current Use Y N		
	c. Cannabis ( aka dagga, marijuana, grass, pot, ganja, hash etc)	0 = NO	1 = YES	Current Use Y N		
	d. Amphetamine-type stimulants (e.g.s MDMA, ecstasy, E, Tik, Meth , crystal meth, ice, speed)	0 = NO	1 = YES	Current Use Y N		
	e. Inhalants (e.g.s sniffing glue, petrol, nail polish, poppers, etc)	0 = NO	1 = YES	Current Use Y N		
	f. Sedatives, sleeping pills or prescription drugs (e.g.s benzos, mandrax, buttons etc)	0 = NO	1 = YES	Current Use Y N		
	g. Cocaine (aka coke, snow, chang, crack etc)	0 = NO	1 = YES	Current Use Y N		
	h. Hallucinogens (e.g.s acid, LSD, mushrooms, shrooms, angel dust, DMT)	0 = NO	1 = YES	Current Use Y N		
	i. Opiates (e.g.s heroin, opium , morphin)	0 = NO	1 = YES	Current Use Y N		
	j. Other drugs (tranquilisers, rohypnol, roofies, date rape drug, downers)	0 = NO	1 = YES	Current Use Y N		
<b>264</b>	<b>While you were pregnant, how often did you ever use the substances you mentioned above? And now?</b>	0 = Never Current Use	1 = once or twice Current Use	2 = weekly Current Use	3 = monthly Current Use	4 = daily or almost daily Current Use
	a. Tobacco	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	b. Alcoholic beverages	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	c. Cannabis ( dagga, marijuana)	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	d. Amphetamine-type stimulants	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	e. Inhalants	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	f. Sedatives or sleeping pills	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	g. Cocaine	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	h. Hallucinogens	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	i. Opiates	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	j. Other drugs	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>

265	<b>While you were pregnant, how often did you have a strong desire or urge to use (1<sup>st</sup> drug, 2<sup>nd</sup> drug etc)? And Now?</b>	0 = Never  Current Use	1 = once or twice  Current Use	2 = weekly  Current Use	3 = monthly  Current Use	4 = daily or almost daily  Current Use
	a. Tobacco	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	b. Alcoholic beverages	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	c. Cannabis ( dagga, marijuana)	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	d. Amphetamine-type stimulants	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	e. Inhalants	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	f. Sedatives or sleeping pills	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	g. Cocaine	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	h. Hallucinogens	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	i. Opiates	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	j. Other drugs	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
266	<b>While you were pregnant, how often did your use of (1<sup>st</sup> drug, 2<sup>nd</sup> drug etc) lead to health, social, legal or financial problems? And Now?</b>	0 = Never  Current Use	1 = once or twice  Current Use	2 = weekly  Current Use	3 = monthly  Current Use	4 = daily or almost daily  Current Use
	a. Tobacco	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	b. Alcoholic beverages	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	c. Cannabis ( dagga, marijuana)	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	d. Amphetamine-type stimulants	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	e. Inhalants	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	f. Sedatives or sleeping pills	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	g. Cocaine	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	h. Hallucinogens	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	i. Opiates	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	j. Other drugs	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
267	<b>While you were pregnant, how often did you fail to do what was normally expected of you because of your use of (1<sup>st</sup> drug, 2<sup>nd</sup> drug, etc)? And Now?</b>	0 = Never  Current Use	1 = once or twice  Current Use	2 = weekly  Current Use	3 = monthly  Current Use	4 = daily or almost daily  Current Use
	a. Tobacco	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	b. Alcoholic beverages	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>

	c. Cannabis (dagga, marijuana)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d. Amphetamine-type stimulants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e. Inhalants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	f. Sedatives or sleeping pills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	g. Cocaine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>267 Cont.</b>	<b>While you were pregnant, how often did you fail to do what was normally expected of you because of your use of (1<sup>st</sup> drug, 2<sup>nd</sup> drug, etc)? And Now?</b>	0 = Never  Current Use	1 = once or twice  Current Use	2 = weekly  Current Use	3 = monthly  Current Use	4 = daily or almost daily  Current Use
	h. Hallucinogens	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	i. Opiates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	j. Other drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>268</b>	<b>Has a friend or relative or anyone else ever expressed concern about your use of (1<sup>st</sup> drug, 2<sup>nd</sup> drug etc)</b>	<b>No, never</b>	<b>Yes, in the past 3 months</b>	<b>Yes, but not in the past 3 months</b>		
	a. Tobacco	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	b. Alcoholic beverages	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	c. Cannabis (dagga, marijuana)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	d. Amphetamine-type stimulants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	e. Inhalants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	f. Sedatives or sleeping pills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	g. Cocaine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	h. Hallucinogens	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	i. Opiates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	j. Other drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>269</b>	<b>Have you ever tried to control, cut down or stop using (1<sup>st</sup> drug, 2<sup>nd</sup> drug, etc)</b>	<b>No, never</b>	<b>Yes, in the past 3 months</b>	<b>Yes, but not in the past 3 months</b>		
	a. Tobacco	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	b. Alcoholic beverages	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	c. Cannabis (dagga, marijuana)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	d. Amphetamine-type stimulants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	e. Inhalants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	f. Sedatives or sleeping pills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	g. Cocaine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	h. Hallucinogens	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

	i. Opiates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	j. Other drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>270</b>	<b>Have you ever used any drugs by injections? (non-medical use only)</b>	<b>No, never</b> <input type="checkbox"/>	<b>Yes, in the past 3 months</b> <input type="checkbox"/>	<b>Yes, but not in the past 3 months</b> <input type="checkbox"/>

### Appendix D: The Child Behaviour Checklist for Ages 6-18

<b>CHILD BEHAVIOR CHECKLIST FOR AGES 6-18</b>		CBCL Page 1/3
Child's Full Name: _____	Child's Age: _____	Child's Ethnic Group: _____
Child's Gender: Boy <input type="checkbox"/> Girl <input type="checkbox"/>	Child's Birth date: Month____/Day____/ Year_____	
Grade in school: _____	Today's Date: Month____/Day____/ Year_____	
Please fill out this form to reflect your view of the child's behaviour even if other people might not agree. Feel free to print additional comments beside each item and in the space provided on page 2. <b>Be sure to answer all items.</b>		
<b>PARENTS' USUAL TYPE OF WORK, even if not working now.</b> <i>(Please be specific—for example, auto mechanic, high school teacher, homemaker, laborer, lathe operator, shoe salesman, army sergeant.)</i>		
FATHER'S TYPE OF WORK: _____	YOUR RELATION TO THE CHILD:	
MOTHER'S TYPE OF WORK: _____	Biological Parent <input type="checkbox"/> Step Parent <input type="checkbox"/> Grandparent <input type="checkbox"/>	
PARENT/ CAREGIVER'S AGE: _____	Adoptive Parent <input type="checkbox"/> Foster Parent <input type="checkbox"/>	
THIS FORM FILLED OUT BY: _____ (Full Name):	Other (specify): <input type="checkbox"/> _____	
YOUR GENDER: MALE <input type="checkbox"/> FEMALE <input type="checkbox"/>		
<b>1. About how many close friends does your child have? (Do not include brothers &amp; sisters)</b> <input type="checkbox"/> None <input type="checkbox"/> 1 <input type="checkbox"/> 2 or 3 <input type="checkbox"/> 4 or more		
<b>2. About how many times a week does your child do things with any friends outside of regular school hours? (Do not include brothers &amp; sisters)</b> <input type="checkbox"/> Less than 1 <input type="checkbox"/> 1 or 2 <input type="checkbox"/> 3 or more		
<b>3. Does your child receive special education or remedial services or attend a special class or special school?</b> <input type="checkbox"/> No <input type="checkbox"/> Yes - kind of services, class, or school: _____ _____ _____		
<b>4. Has your child ever had a serious head injury?</b> <input type="checkbox"/> No <input type="checkbox"/> Yes – please describe: _____ _____		
Below is a list of items that describe children and youths. For each item that describes your child <b>now or within the past 6 months</b> , please mark the <b>2</b> if the item is <b>very true or often true</b> of your child. Mark the <b>1</b> if the item is <b>somewhat or sometimes true</b> of your child. If the item is <b>not true</b> of your child, mark the <b>0</b> . Please answer all items as well as you can, even if some do not seem to apply to your child.		
<b>0 = Not True (as far as you know)                      1 = Somewhat or Sometimes True                      2 = Very True or Often True</b>		

Below is a list of items that describe children and youths. For each item that describes your child **now or within the past 6 months**, please mark the **2** if the item is **very true or often true** of your child. Mark the **1** if the item is **somewhat or sometimes true** of your child. If the item is **not true** of your child, mark the **0**. Please answer all items as well as you can, even if some do not seem to apply to your child.

**0 = Not True (as far as you know)**

**1 = Somewhat or Sometimes True**

**2 = Very True or Often True**

<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   2. Drinks alcohol without parents' approval (describe): <hr/> <hr/> <hr/>	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   57. Physically attacks people <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   63. Prefers being with older kids <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   67. Runs away from home <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   68. Screams a lot <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   72. Sets fires <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   73. Sexual problems (describe): <hr/> <hr/> <hr/>
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   3. Argues a lot	
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   16. Cruelty, bullying, or meanness to others	
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   19. Demands a lot of Attention	
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   20. Destroys his/her own things	
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   21. Destroys things belonging to his/her family or others	
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   22. Disobedient at home	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   81. Steals at home
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   23. Disobedient at school	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   82. Steals outside the home
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   26. Doesn't seem to feel guilty after misbehaving	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   86. Stubborn, sullen, or irritable
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   28. Breaks rules at home, school, or elsewhere	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   87. Sudden changes in mood or feelings
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   37. Gets in many fights	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   88. Sulks a lot
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   38. Gets teased a lot	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   89. Suspicious
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   39. Hangs around with others who get in trouble	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   90. Swearing or obscene language
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   43. Lying or cheating	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2   94. Teases a lot

Below is a list of items that describe children and youths. For each item that describes your child **now or within the past 6 months**, please mark the **2** if the item is **very true or often true** of your child. Mark the **1** if the item is **somewhat or sometimes true** of your child. If the item is **not true** of your child, mark the **0**. Please answer all items as well as you can, even if some do not seem to apply to your child.

**0 = Not True (as far as you know)**

**1 = Somewhat or Sometimes True**

**2 = Very True or Often True**

0    1    2   95. Temper tantrums or hot temper

0    1    2   96. Thinks about sex too much

0    1    2   97. Threatens people

0    1    2   99. Smokes, chews, or sniffs tobacco

0    1    2   101. Truancy, skips school

0    1    2   104. Unusually loud

0    1    2   105. Uses drugs for nonmedical purposes (**don't** include alcohol or tobacco) (describe):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

0    1    2   106. Vandalism



