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# Parenting Practices, Children's Peer Relationships and Being Bullied at School

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## Abstract

Being bullied at school has serious mental health consequences for children. Whole school interventions have made only modest reductions in bullying. Particular parenting behaviors have been associated with an increased likelihood of individual children being targeted for bullying at school. There is also evidence that parenting impacts on the development of child social competence, emotional control and friendships, which have all been found to affect a child's risk of being targeted for bullying. This study explores the relationship between facilitative parenting (defined as parenting which supports the development of children's social skills and relationships with peers), children's peer relationships, and being bullied at school. We examine whether facilitative parenting and a child's social relationships with peers discriminate between children who are bullied at school or not bullied, according to teachers. 215 children aged five to 11 years and their parents completed measures of children's social behavior and peer relationships and facilitative parenting. The results showed that facilitative parenting discriminated between children who were bullied or not by peers. Bullied children had poorer peer relationships and endorsed more reactive aggression in response to hypothetical situations of peer provocation than their non-bullied peers. We discuss the implications for the development and trialing of family interventions for children bullied by peers.

**Key words:** school bullying, parenting, victim, family, child

Bullying is negative or hurtful behavior by peers which is typically repeated over time (Olweus, 1993). It can take verbal, physical or "relational" forms (e.g. exclusion and rumours) and can be communicated in person or through technology. Bullying by peers is evident as early as preschool and, for some children, victimization can be well-established as a chronic pattern by six years of age (Alsaker & Valkanover, 2001). For frequently bullied children, victimization is quite stable from year to year in early primary school (Crick et al., 2006), middle school (Boulton & Smith, 1994) and across the transition to high school (Paul & Cillessen, 2003), meaning that the same children may endure bullying over many years.

Bullying causes serious consequences for children including increased internalizing problems of depression, anxiety and somatic symptoms (Fekkes et al. 2006), increased behavior problems (Perren, Ettekal & Ladd, 2012), and increased loneliness and school avoidance (Kochenderfer & Ladd 1996a). Being bullied at primary school can impact on mental health for many years afterwards. Longitudinal cohort studies in the UK controlling for children's genetics, pre-existing functioning and family environments have found that children bullied at seven years of age had higher incidence of internalizing problems two years later (Arseneault et al., 2008), and that children frequently bullied at primary school demonstrated higher rates of self-harm before 12 years of age (Fisher et al., 2012). Other studies, which controlled for earlier adjustment, found that being bullied between six and eight years of age predicted increased incidence of depression and psychiatric problems in early adulthood and up to 32 years later (Sourander et al. 2007; Farrington, Loeber, Stallings, & Ttofi, 2011).

In response to international concerns about bullying and its impacts, there has been a great deal of research on school-based programs to address bullying. Evaluations of these programs have identified mainly modest outcomes. One meta-analysis found no meaningful changes on the majority of outcomes and a small average effect size on student self-reports of being bullied (mean  $d = 0.27$ ) (Merrell, Gueldner, Ross, & Isava, 2008). In another recent meta-analysis, Ttofi and Farrington (2010) found reductions in victimization were confined mainly to studies which used non-randomized designs. Given that previous research has found that the number of children reported being bullied tends to fall with age (Smith, 2011), a reduction in an uncontrolled study does not necessarily reflect an intervention

effect. Ttofi and Farrington found that, across studies, involvement of peers in interventions was associated with increased rather than decreased victimization. In contrast, incorporation of parent education into programs was one of the few factors associated with decreased child victimization. Hence, despite the proliferation of school-based programs, it is not necessarily clear that the whole-school context is the best or only system for interventions to support children who are bullied by peers.

There is accumulating evidence that the family system is important for supporting individual children bullied at school. Some reluctance has been expressed towards examining the role of children who are bullied in maintaining bullying, with some authors equating this to “blaming the victim” (e.g. Olweus, 1991). Yet there is increasing evidence that child social behavior as well as parenting and family behavior may contribute to maintaining bullying of particular children over time. According to a recent meta-analysis, poor social competence is one of the strongest predictors for children’s receipt of bullying (Cook, Williams, Guerra, Kim & Sadek, 2010). Children who are bullied tend to be less assertive, more easily emotionally distressed, and less effective in resolving conflict than other children (Perren & Alsaker, 2006; Perry, Kusel & Perry, 1988; Schwartz, Dodge, & Coie, 1993). Most children who are bullied at school are referred to as “passive victims” because they do little to provoke the aggressor (Olweus, 1978) and seem submissive, withdrawn, anxious or depressed (Perry, Hodges, & Egan, 2001). Internalizing problems of depression, anxiety and loneliness act as both antecedents and consequences of peer victimization (Hodges & Perry, 1999), and this vicious circle contributes to the high stability for individual children being victimized over time (Rejntjes, Kamphuis, Prinzie & Telch, 2010). A minority of children targeted for bullying are “provocative victims” (Olweus, 1993) or “bully-victims” (Boulton & Smith, 1994). They tend to both start fights and get picked on (Schwartz, Dodge, Pettit & Bates, 1997) and react emotionally with unskilled aggression (Perry, Perry, & Kennedy, 1992). The angry, aggressive reactions which provocative-victims give when provoked, can attract further victimization over time in preschool, primary school and middle school students (Kochenderfer and Ladd, 1997; Hodges, Boivin, Vitaro & Bukowski, 1999; Spence, De Young, Toon, & Bond 2009). This difficulty controlling intense emotional reactions has been found to be the single-most important predictor in the emergence of chronic victimization (Schwartz, Proctor & Chien, 2001).

There is substantial evidence that the social and emotional behavior of children is relevant to their risk of victimization. Parenting behavior and the family system play a central role in the development of children’s social and emotional skills. Children who are bullied are parented differently to other children. Compared with other parents, parents of bullied children demonstrate lower levels of warmth and responsiveness towards the child, and higher levels of “intrusive-demandingness”, meaning they give such high levels of direction that the child does not learn independence (Ladd & Ladd, 1998). They may also be more overprotective (Bowers, Smith, & Binney, 1994), which is likely to be both a risk factor and consequence for victimization. These same parenting characteristics have also been implicated in the development of children’s social and emotional skills.

This paper examines the type of parenting which is likely to reduce the risk for individual children being targeted for bullying. We will call this “facilitative parenting” and define it as parenting which is supportive of peer skills and relationships. In their Tripartite Model, McDowell and Parke (2009) defined three major ways in which parents influence children’s peer relationships 1) Parent-child interaction, 2) Parent as direct instructor and 3) Parent as provider of opportunities. McDowell and Parke found that all three paths of parental influence predicted children’s social competence which, in turn, predicted children’s peer acceptance one year later. Each of these three paths is discussed below.

### ***Parent-Child Interaction***

Both attachment theory and social learning theory emphasise the importance of parent-child interactions in moulding the way children relate to others. The parent-child relationship has been described as the template through which children develop social and emotional skills necessary for successful peer relationships (Parke & Ladd, 1992). Compared with other parents, parents of bullied children have been found to be less warm and responsive towards the child, and more over-directive or “intrusively demanding”(Ladd & Ladd, 1998). There is also research which links warmth and over-directiveness to children’s development of social competence, which has elsewhere been identified as a key protective factor for children. McDowell, Parke and Wang (2003) found that high parental warmth and low levels of controlling parenting predicted social competence in elementary school children over time, as measured by teacher questionnaires and sociometric ratings by peers. McDowell and Parke (2009) found that “Parent-Child Interaction”, operationalized as observations of warmth and responsiveness in parent-child interactions, significantly affected later peer acceptance through children’s social competence. Warm responsive parenting has previously been associated with peer competence, frequency of positive interaction with peers, and higher social acceptability (Lindsey and Mize, 2001; Pettit & Harrist, 1993). On the other hand, overly intrusive or directive parenting has been associated with lower acceptance by peers and more negative peer interactions (Isley, O’Neil & Parke, 1996).

Warm, responsiveness and over-directiveness have also been linked to the capacity of children to regulate their emotions, a key determinant of ongoing victimization (Rejntjes et al., 2010). In a longitudinal study of children from two years to entering preschool, Graziano, Keane and Calkins (2010) found that over-controlling behavior by mothers predicted lower capacity of children to regulate negative emotions in response to frustration. Warm, responsive parenting, on the other hand, has been shown to protect children against the emotional consequences of bullying and peer rejection. In a recent large-scale longitudinal study of twins, Bowes, Maughan, Caspi, Moffitt and Arseneault (2010) found that maternal warmth, sibling warmth and a positive home atmosphere offered a buffering affect for the emotional and behavioral consequences of being bullied, and that family factors were particularly important to the adjustment of children who were bullied compared to their non-bullied peers. Hence parenting which is warm and not overly controlling may help protect children against the risk of being bullied through its influence on children's developing social competence, and may also buffer children against the emotional consequences of bullying through helping them regulate their emotions in response to adversity.

### ***Parents as Coaches for Children***

McDowell and Parke (2009) found that "Parent as Direct Instructor" was a significant path to children's later peer acceptance, mediated through children's social competence. "Direct Instructor" was operationalized as parental use of induction strategies and the quality of the solution parents offered to children's social problems. We have renamed this role "coach" rather than "instructor" to distinguish this role from didactic, over-directive parenting which has been associated with the inability of victimized children to solve their own problems (Oliver, Oaks, & Hoover, 1994). Although there is likely to be bi-directional influence, there is evidence that over-directive parenting exacerbates avoidant and internalizing behavior of children, characteristic of passive victims of bullying. Rubin, Cheah and Fox (2001) found that mothers' overly controlling behavior during free play-time with their four-year olds uniquely predicted behavioral reticence of the children at seven years of age beyond what would be predicted from the children's behavior as four-year olds. Barrett, Rapee, Dadds and Ryan (1996) found, through behavioral micro-analysis of family decision-making, that over-controlling parenting behaviors exacerbated internalizing and avoidant social problem-solving responses of anxious children. Hence it seems likely that over-directive parenting may exacerbate any tendency children have towards internalizing. Hence a key role in coaching victimized children in social situations would involve an inductive approach which provides children with more space, time and independence to solve their own problems and which (in combination with teaching effective social skills) may enable children to take a more active role in solving their own problems.

Another way that parents as coaches might influence children's emotional regulation is by their influence on children's interpretation of social situations. Cole and Turner (1993) found that for primary-school children, the relationship between being negatively evaluated by peers and self-reported depression was almost completely mediated by children's own negative attributions i.e. meanings and interpretations of situations. Mezulis, Hyde and Abramson (2006) found that negative feedback from parents interacted with negative life events to predict more negative attributions. Some children may be more prone to developing negative attributions than others. "Withdrawal negativity" has been described as an innate child temperament which is a combination of fear, sadness and shyness and makes children more vulnerable to developing negative attributions in response to stressors (Rothbart & Bates, 1998). Children high in withdrawal negativity are prone to develop internalizing problems when they encounter stressors (Prinstein, Cheah & Guyer, 2005). Children prone to internalizing tend to make global, stable attributions and infer negative consequences from aversive events (Abramson, Metalsky, & Alloy, 1989). So parents in a coaching role could help children develop more optimistic attributions of situations by helping them focus on specifics rather than over-generalizing, helping them better understand possible motives of others, and helping children realise they can influence the situation.

Another opportunity parents have to influence children's relationships with peers is through their assistance with managing sibling relationships. Children who are bullied are less skillful at resolving conflict than other children (Perren & Alsaker, 2006). Poor relationships and physical aggression amongst siblings predicts more disturbed behavior with peers several years later (Richman, Stevenson, & Graham, 1982; Stauffacher & DeHart, 2006). Sibling relationships have been described as an intermediate step through which children learn to transfer interpersonal relating skills from the parent-child relationship to relationships with peers (Parke, & Ladd, 1992). Sibling relationships, then, are a potential vehicle through which parents can teach children to resolve conflict with peers.

### ***Parents as Providers of Opportunities***

The final path through which parents influence children's peer social competence and peer acceptance is through their provision of opportunities for peer interaction (McDowell and Parke, 2009). Whether consciously or not, parents' actions and inactions influence opportunities for children to develop skills and relationships with peers. Parents of

children who are bullied tend to be more over-protective than other parents (Bowers et al., 1994). Although protecting a child is a natural response to victimization, it could also limit the child's ongoing opportunities to develop friendships. Children who are bullied have fewer friends and playmates than other children and friendedness helps protect children against bullying (Fox & Boulton, 2006; Kochenderfer & Ladd, 1997). Having a mutual best friend has been shown to reduce children's future risk of victimization one year later predicted from internalizing and externalizing behaviors (Hodges, Boivin, Vitaro, & Bukowski, 1999). Peer friendships have been found to serve a similar function to responsive parent-child relationships in protecting against depression for young teenagers who have been bullied (Denny, Clark, Fleming, & Wall, 2004). Parents' provision of opportunities for children to interact with other children, through play-dates and extra-curricular activities, predicts children's social competence and children's acceptance by peers one year later (McDowell and Parke, 2009). Given the importance of friendships, parent could help protect their child against bullying, by deliberately providing opportunities for their child to develop their friendships.

There are other ways in which parents affect opportunities for the child to develop friendships. Parents' choice of neighbourhood has been shown to influence children's social development (Parke & Bhavnagri, 1989). Of particular relevance to children who are bullied is the parents' input into choice of school. Ideally the parent would identify a school environment in which it is easy for the child to be socially accepted and make friends and which has a comparably low rate of bullying. Parents also have the capacity to communicate with teachers to improve the support of the child's peer relationships at school and to address problems (Sanders & Dadds, 1993).

In conclusion, there is a high level of accord between the Tripartite Model for parents' influence on children's social development, and previous research specific to the families of children bullied by peers. Parents may be able to deliberately facilitate the development of children's social competence and peer relationships and reduce the risk of victimization - "facilitative parenting". Facilitative parenting is defined as warm and responsive parenting which encourages independence (as opposed to being over-directive), and supports children's development of social skills and strong peer relationships.

To date the literatures on parenting, and children's social relationships and receipt of bullying by peers have been disconnected. No study has examined the joint role of parenting practices and children's social relationships in predicting the incidence of bullying for individual children. This study aims to fill that gap. The primary aim was to test, using a cross sectional design, whether children who are bullied at school, according to teachers, can be identified from non-bullied children on the basis of facilitative parenting and children's social relationships with peers. Specifically we hypothesised that those children who were bullied could be distinguished from children who were not bullied by lower levels of facilitative parenting, and higher levels of child emotional reactivity, more emotional problems, more behavior problems, more negative internalizing thoughts and feelings, lower assertiveness with peers, and lower friendedness. A second aim was to examine whether a sub-sample of passive victims of bullying could be differentiated on the basis of the same variables. We were also interested in checking whether facilitative parenting and child social behavior discriminated between victimized and non-victimized children similarly in different sub-groups within the sample. We chose gender, as previous literature has identified some differences in bullying of boys and girls, and because our sample size was sufficient to split the sample into two gender-based groups. A third aim, therefore, was to examine whether parenting and child social and emotional variables would similarly differentiate across different sub-groups of boys and girls who were bullied.

## Method

### *Participants*

The sample comprised 215 children, their parents and teachers drawn from eight schools from South East Queensland, Australia. Schools were sampled randomly from all Education Queensland and Catholic Education schools across three federal electorates. The participating eight schools represented a broad range of socio-economic areas and ranged from very large schools (e.g. 37 classes from Prep-Grade 5) to small schools (e.g. five classes between Prep and Grade 5). This study received ethical clearance from the University of Queensland, Education Queensland and Catholic Education research and ethics authorities. Letters seeking parental consent were sent home to all children in year levels between prep and Grade 5 in participating schools and consenting families subsequently involved in the study. We also gained informed consent from each child and the child's teacher before commencing. The average proportion of families returning consent forms was low with an average of 2.29 children per class across the eight schools (approximately 8.5% of the population). The resulting sample of children consisted of 50.2% girls and 49.7% boys. Children were aged between five and 11 years with a mean age of 7.65 years ( $SD = 1.49$ ). Surveys were returned by the primary caregivers of 185 of the 215 children involved in the study. Main caregivers comprised 93% mothers and 7% fathers. Participating families included considerable cultural diversity with 62.6% of parent

respondents born in Australia and others born in UK (10.2%), New Zealand (9.6%), Viet Nam (4.3%), South Africa (2.7%), Samoa (2.1%) and India (2.1%). A total of 16.6% of participating children spoke languages other than English at home.

## **Measures**

### **Children's Self Report Measures.**

The Loneliness Questionnaire (Asher, Hymel & Renshaw, 1984) is a self-report measure of friendedness which requires children to judge how true statements are on 5-point scale (e.g. "I can find a friend when I need one."). This measure had been previously demonstrated to have very good internal consistency ( $\alpha = .90$ ) with children between Grade 3 and Grade 6 of school (Asher & Wheeler, 1985). We adapted the Loneliness Measure for children as young as five years old by utilising concrete materials in the form of a chart with different sized circles representing levels of agreement to statements. This produced very good internal consistency for our total sample of 215 ( $\alpha = .91$ ). Given we were extending use of this measure to younger children, we also checked internal consistency for the younger cohort of children in grades Prep, Grade 1 and Grade 2 and this was also good ( $n = 92$ ;  $\alpha = .88$ ).

The Sensitivity to Peer Behaviour Interview (Healy & Sanders, 2008b) is a procedure that measures young children's negative cognitive attributions in response to hypothetical scenarios of aversive peer behavior. Hypothetical scenarios have been previously used to ascertain child responses to aversive incidents (Barrett, Rapee et al., 1996; Prinstein et al., 2005). To make the scenarios appropriately concrete for young children, the procedure uses a felt board and felt characters and props. The child first designs their own character then interprets ambiguous peer behavior directed towards their character. (e.g. a child in your class has a party and doesn't invite you). Children answer questions on the intentions of the behavior (e.g. "Why do you think they keep knocking you over? Do you think it would be that a) they don't like you, or b) they are just playing rough?"), the generalizability of the behavior to different times (e.g. "Do you think this will happen just today, or lots of days?") and different peers (e.g. "do you think these children will knock you over too, or just this child?"). We scored children "1" for each answer that was negative (i.e. when they interpret negative intentions, expect behavior to continue over time and expect otherwise neutral children to act the same) to comprise the Internalizing Cognitions scale, which produced good internal consistency ( $\alpha = .76$ ). For each scenario in the SPBI, children also reported the emotional impact the behavior would have on them by nominating whether the situations would make them feel the same as before (scored 0), a little less happy (scored 1) or a lot less happy than before (scored 2). The sum of scores across the 6 situations formed the Internalizing Feelings scale, which produced acceptable internal consistency ( $\alpha = .73$ ). Children were also asked to choose how they would respond in each of the 6 scenarios (e.g. "Do you think you would a) run away and hide, b) tell them to stop it, or c) start knocking them over). The number of times overall the child endorsed attacking the other child physically, verbally or relationally comprised the Reactive Aggression scale, which produced acceptable internal consistency ( $\alpha = .71$ ).

### **Parent Report Measures**

Facilitative Parenting Scale (Healy & Sanders, 2008a) is a 58-item self-report measure of parenting hypothesised to facilitate the development of children's social skills and peer relationships. The scale includes items on parental warmth/ responsiveness towards the child (e.g. "I am affectionate with my child"), over-directedness (e.g. "I often tell my child what to say and how to behave, parent-child conflict (e.g. "My child and I have trouble getting on"), parental encouragement of child socializing with peers (e.g. "I encourage my child to invite friends over to play"), coaching social skills (e.g. "I help my child practise standing up for him/ herself") and parent-school communication (e.g. "I keep my child's teacher informed of important things affecting my child"). Parents rated each question on a 1-5 scale from "not true" to "extremely true". There were 19 reverse-scored items. The whole scale demonstrated good internal consistency with higher scores indicating higher levels of facilitative parenting. Factor analysis produced a total of 10 meaningful factors with a wide range of internal consistencies. The whole scale labelled facilitative parenting demonstrated good internal consistency ( $\alpha = .88$ ) and was therefore utilised in analyses.

### **Measures of Child Social and Emotional Behavior Completed by Parents.**

The Preschool Feelings Checklist (Luby, Heffelfinger, Mrakotsky, & Hildebrand, 1999) is a brief 16-item checklist requiring parents to answer "yes" or "no" for symptoms of depression in their child (e.g. "Frequently appears sad or says he/she feels sad"). It includes one reverse-scored item. This measure has demonstrated good validity in discriminating young children aged 3 to 5.6 years diagnosed with depression and correlates well with other established depression measures (Luby, Heffelfinger, Koenig-McNaught, Brown, & Spitznagel, 2004). A perusal of the item content showed that all items would be applicable to elementary school-aged children. This measure demonstrated acceptable internal consistency in the current study ( $\alpha = .78$ ).

The Peer Friendly Assertiveness Scale (Sanders & Healy, 2008a) is a 20-item parent-report measure of children's ability to act in a confident, friendly manner in social situations. Parents rate how often the child

demonstrates a range of child behaviors (e.g. “speak up of a peer is playing unfairly”) on a 5-point scale from “hardly ever” to “almost always”. It contains no reverse-scored items. Internal consistency for the whole scale was very good ( $\alpha = .93$ ).

Withdrawal Negativity is the composite of three subscales of Shyness, Sadness and Fear from the Child Behavior Questionnaire (for ages three to seven years) (Rothbart, 2000) and the Temperament in Middle Childhood Questionnaire (for ages seven to 10 years) (Simonds & Rothbart, 2004). For children aged seven or older, there are 24 items describing child characteristics (e.g. “is afraid of burglars”), which parents rate on a 5-point scale from “almost always untrue” to “almost always true.” One item is reverse-scored. For younger children, there are 19 items (e.g. “is afraid of loud noises”) rated on a 7-point scale ranging from “extremely untrue” to “extremely true”. Higher scores in withdrawal negativity represent higher levels of shyness, sadness and fear. In the current study, scales for both younger and older children demonstrated good internal consistency ( $\alpha = .79$ ;  $\alpha = .89$ ).

The Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1999) is a 25-item parent report of behavior for children aged three to 16 years which requires parents to answer “not true”, “somewhat true” or “certainly true” for each item. The SDQ has been found to discriminate between children at high and low risk for behavior problems and correlates well with another well-established behavior problem checklist (Goodman & Scott, 1999). We used two subscales from the SDQ. The Emotional Symptoms sub-scale includes five items comprising the Emotional Symptoms subscale (e.g. “Nervous and clingy in new situations”), which demonstrated acceptable internal consistency with this sample ( $\alpha = .73$ ). The Conduct Problems sub-scale includes five items about externalizing behavior (e.g. “often fights with other children or bullies them”), which demonstrated quite low internal consistency with this sample ( $\alpha = .65$ ). For both Emotional Symptoms and Conduct Problems subscales, higher scores represent greater problems.

### **Teacher Report Measures of Bullying**

The Brief Bullying Report (Sanders & Healy, 2008b) is a brief measure of peer victimization. Teachers rated how much physical bullying (“pushed around, hit, tripped”), verbal bullying (“teased, called names, taunted”), social bullying (“shunned, left out, rejected”) and total bullying each child receives on a 7-point scale from “none” to “a great deal”. Internal consistency for this whole measure was very good ( $\alpha = .90$ ).

Perception of Representativeness of Sample for Victimization (Healy & Sanders, 2008c).

Given the low proportion of families returning consent forms, we sought feedback from individual teachers on representativeness of the sample with respect to peer victimization. Participating teachers rated how well the sample of students from their class represented the rest of the class with respect to being bullied. Teachers were asked to choose the best description of the sample from their class from “Sample greatly over-represents/ somewhat over-represents/ is a fair sample/ somewhat under-represents/ greatly under-represents the class with respect to bullying received”.

### **Procedure**

An experienced child psychologist interviewed each child individually for around 30 minutes in a room provided at the child’s school. All measures included concrete materials to maximize understanding of younger students, as recommended by Cutting and Dunn (2002). Parent questionnaires for the main caregiver were sent home with each participating child. After all participating children from each class were interviewed, we asked the class teacher to complete the Brief Bullying Report for participating children in their class. From the second school onwards (i.e. seven of the eight schools), teachers were then asked to rate the representativeness of the sample of children from their class with respect to being bullied.

### **Statistical analyses**

We used discriminant analyses (Tabachnick & Fidell, 1996) to ascertain whether bullied children could be discriminated from non-bullied children on the basis of facilitative parenting and children’s social behavior. Teacher ratings of “total bullying” from the Brief Bullying Report were used to distinguish two distinct groups of children. Ratings of Total Bullying produced a highly positively skewed distribution. On the 7-point scale, there was a mean of 1.89, a median of 2 and a mode of 1. In order to define two distinct groups which were clearly distinguished in terms of victimization, we set aside students with a median score of 2. We classified children who received the lowest possible rating of “1” (meaning “none or hardly any bullying”) as the non-bullied group (47%) and classified children with a score of 3-7 as the bullied group (22%). The remaining 31% of the sample with a score of 2 were excluded in discriminant analyses but included in correlational analyses. For the initial discriminant analyses, all children classified as either “non-bullied” or “bullied” were included (Aim 1). To test discriminators of children who were passive victims of bullying (Aim 2), we excluded children reported to bully, as ascertained by answers of either “somewhat” or “certainly true” on the SDQ question for parents on whether their child “fights with or bullies other children”. This is likely to exclude from the sample children who bully as well as children who are provocative victims (i.e. “bully-victims) but will meet the purpose of distinguishing children who are passive victims of bullying



versus children who are not bullied. Finally, we conducted separate analyses for boys and girls (Aim 3). All predictor variables were entered simultaneously into the discriminant analyses.

## Results

### *Preliminary Analyses*

Of the 74 teachers who rated the students in the sample compared to the rest of the class with respect to peer victimization, 62.16% described the sample as “fair”, 20.27% as “somewhat under-representing”, 2.7% as “greatly under-representing”, 13.51% as “somewhat over-representing” and 1.35% as “greatly over-representing” bullied students.

Table 1 shows the means, standard deviation and inter-correlation between teacher reports of bullying, demographic variable and measures of facilitative parenting and child social relationships. Receipt of bullying had significant correlations with two demographic measures. It was positively associated with the child’s year level, meaning that the older children were reported to receive more bullying. It was negatively associated with education of the main caregiver indicating that the more educated were the parents, the less bullying was reported for their child.

Table 1 also shows correlations between facilitative parenting, child relationships measures and bullying reported by teachers. There were strong associations between many of these variables. Facilitative parenting was negatively correlated with teacher reports of bullying of children. Child reactive aggression, depression, emotional behavior, conduct problems and internalizing cognitions and feelings were all positively associated with bullying of children. Child friendedness was negatively associated with bullying reported.

### *Discriminants of bullying*

Table 2 includes means and standard deviations of all predictor variables for children characterized as bullied or non-bullied. One discriminant function was identified which correlated .66 with bullying received and significantly discriminated between the bullied and non-bullied groups, Wilks’  $\lambda = .57$ ,  $p < .001$ . Table 2 shows the structure matrix for the discriminant function as well as F-tests of equality of the means for the high and low bullying groups for each predictor variable. Those variables which contributed most towards the discriminant function and which best distinguished between the bullied and non-bullied groups were children’s conduct problems (.50), facilitative parenting (-.44), child depression (.43), reactive aggression (.43), internalizing cognitions (.40), friendedness (-.39), education of main caregiver (-.34) and year level of child (.32), emotional symptoms (.24) and assertiveness (-.22). Classification using the discriminant function resulted in 87.7% of the total sample being correctly classified including 74.3% of the bullied group and 93.1% of the non-bullied group.

The second discriminant analysis addressed the second aim of considering passive victims only after seeking to eliminate children who bully from the sample. One discriminant function was identified which correlated .66 with group membership and significantly discriminated between the bullied and the non-bullied groups, Wilks’  $\lambda = .57$ ,  $\chi^2 = 50.52$ ,  $p < .001$ . Table 3 shows the structure matrix for the discriminant function as well as F-tests of equality of the means for the bullied and non-bullied groups for each predictor variable. Those variables which contributed most towards the discriminant function and which distinguished best between the bullied and non-bullied groups were child depression (.52), internalizing cognitions (.51), facilitative parenting (-.48), conduct problems (.48), reactive aggression (.47), friendedness (-.47), emotional symptoms (.30) and parent education (-.25). Classification using the discriminant function resulted in 88.0% of the total sample being correctly classified including 62.5% of the bullied group and 96.1% of the non-bullied group.

Two further discriminant analyses were conducted to address our third aim of considering girls and boys separately. For girls, one discriminant function was identified which correlated .67 with group membership and significantly discriminated between the bullied and non-bullied groups, Wilks’  $\lambda = .53$ ,  $\chi^2 = 31.78$ ,  $p = .007$ . Those variables with highest correlations with the discriminant function and which distinguished best between the bullied and non-bullied groups were internalizing cognitions ( $r = .57$ ;  $F(1, 62) = 15.89$ ,  $p < .001$ ), friendedness ( $r = -.48$ ;  $F(1, 61) = 11.58$ ,  $p = .001$ ), reactive aggression ( $r = .45$ ;  $F(1, 61) = 9.82$ ,  $p = .003$ ), parent education ( $r = -.40$ ;  $F(1, 61) = 7.87$ ,  $p = .007$ ), internalizing feeling ( $r = -.37$ ;  $F(1, 61) = 6.93$ ,  $p = .011$ ); and facilitative parenting ( $r = -.35$ ;  $F(1, 61) = 6.04$ ,  $p = .017$ ). Classification using the discriminant function resulted in 92.1% of the total sample being correctly classified including 78.6% of the bullied group and 95.9% of the non-bullied group.

For boys, one discriminant function was identified which correlated .78 with group membership and significantly discriminated between the bullied and non-bullied groups, Wilks’  $\lambda = .39$ ,  $\chi^2 = 46.95$ ,  $p < .001$ . Those variables which contributed most towards the discriminant function and which distinguished significantly between the bullied and non-bullied groups were conduct problems ( $r = .49$ ;  $F(1, 57) = 21.67$ ,  $p < .001$ ), child depression ( $r = .38$ ;  $F(1, 57) = 12.83$ ,  $p = .001$ ), facilitative parenting ( $r = -.33$ ,  $F(1, 57) = 9.66$ ,  $p = .003$ ), child’s year level ( $r = .32$ ;  $F(1, 57) =$



9.40,  $p = .003$ ), child assertiveness ( $r = -.29$ ;  $F(1,57) = 7.70$ ,  $p = .007$ ), reactive aggression ( $r = .27$ ;  $F(1,57) = 6.46$ ,  $p = .014$ ), and emotional symptoms ( $r = .26$ ;  $F(1,57) = 6.22$ ,  $p = .016$ ). Classification using the discriminant function resulted in 91.5% of the total sample being correctly classified including 85.7% of the bullied group and 94.7% of the non-bullied group.

## Discussion

The primary aim of this study was to test, using a cross sectional design, whether children who are bullied at school could be discriminated from non-bullied children on the basis of their exposure to facilitative parenting and their relationships with peers. Factors which best discriminated between bullied and non-bullied children included facilitative parenting, children's conduct problems, reactive aggression, depression, internalizing cognitions and friendedness, education of main caregiver, year level of child, children's emotional symptoms and assertiveness and attendance or non-attendance to two specific schools. A second analysis confirmed that passive victims of bullying alone could be differentiated on the basis of the same variables (Aim 2). Both bullied and non-bullied boys and girls could also be differentiated in gender-specific analyses from these same factors (Aim 3).

A key finding from the present study was that facilitative parenting differentiated between bullied and non-bullied children in all analyses, with facilitative parenting for bullied children being consistently lower than for the non-bullied group. Facilitative parenting is a potentially modifiable protective factor that could be used in parenting interventions with children susceptible to bullying. It describes a pattern of parenting which is characterized by warmth and responsiveness, encouraging appropriate independence (as opposed to being over-directive or over-protective), support of children's friendships and coaching of social problem-solving skills. One contribution of this study is the successful combination of factors identified by previous literature into a single scale with high internal consistency which successfully discriminates bullied from non-bullied children.

Apart from facilitative parenting, the only other variable which discriminated between bullied and non-bullied children across all analyses was reactive aggression. Children who scored high on the Reactive Aggression subscale endorsed aggressive reactions in response to ambiguous, hypothetical situations with peers. That is, they tended to perceive threats when perhaps none was present and to respond in a way that others would perceive as aggressive. The importance of reactive aggression in distinguishing bullied from non-bullied student, even after students who bully were removed from the sample, is consistent with previous research that shows that passive as well as provocative victims of bullying tend to react emotionally and ineffectively to perceived social threats and problems (Crick & Dodge, 1996; Schwartz et al., 2001).

When children reported to bully were excluded from the analysis, child depression and internalizing cognitions were the strongest discriminators between bullied and non-bullied children. This is consistent with the internalizing nature of passive victims of bullying. The Internalizing Cognitions subscale measures the child's endorsement of interpretations of social situations which are likely to lead to depression and anxiety. Bullied children tended to interpret even ambiguous situations in a more negative way than children who are not bullied. This is consistent with previous research about development of negative cognitive schemas (Prinstein et al., 2005; Rosen, Milich & Harris, 2007) and an example of the downward spiral between internalizing behavior and ongoing victimization (Hodges & Perry, 1999).

Gender-specific discriminant analyses revealed substantial differences in factors which discriminated bullied from non-bullied boys versus girls. For girls (but not boys), internalizing cognitions, lack of friendedness, less parent education, and internalizing feelings distinguished between bullied and non-bullied groups. For boys, (but not girls), conduct problems, child depression, school year level, lack of assertiveness, and emotional symptoms distinguished bullied and non-bullied groups. Facilitative parenting and reactive aggression were the only two factors which significantly discriminated for both boys' and girls' analyses.

The relative importance of internalizing cognitions for girls may reflect the greater tendency of girls to ruminate (McLaughlin & Nolen-Hoeksema, 2011). Rumination is the tendency to repetitively think about negative events. The tendency for rumination may also be heightened by the higher prevalence of more subtle social bullying for girls (Card, Isaacs & Hodges, 2007), which may be more subject to interpretation. The particular significance of friendedness as well as internalizing cognitions for girls might mean that close friendships give girls an opportunity to "reality check" ambiguous and potentially threatening social situations.

For boys, as well as for the whole sample, conduct problems was the strongest discriminator between bullied and non-bullied groups. Depression was the next strongest. Previous research has reported small to moderate correlations between conduct problems and victimization, but has not specifically examined gender differences (Card et al., 2007). The relative prominence of conduct problems as a discriminator for bullied boys but not girls may reflect the higher frequency of conduct problems amongst boys (Kronenberger & Meyer, 1996). Some items of the Conduct

Problems subscale describe externalizing behaviors typical of provocative victims, also known as bully-victims (e.g. “often has temper tantrums” and “fights and bullies other kids”). The inability to control strong emotions and resulting externalizing behaviors are strong risk factors for bully-victims (Schwartz, Proctor & Chien, 2001). Depression and conduct problems have high co-morbidity and are likely to share common risk factors (Wolff & Ollendick, 2006). Given the strong relevance of both depression and conduct problems for boys, it may be that, for boys, poor emotional regulation is more likely to lead to conduct problems and lashing out.

Some factors, which discriminated bullied and non-bullied boys, are more relevant to internalizing problems, typical of passive victims. These included emotional symptoms and lack of assertiveness. The Emotional Symptoms subscale describes anxious behavior (e.g. “many worries, often seems worried”). The relevance of anxious, non-assertive behavior in discriminating bullied boys is consistent with previous findings that emotionality and submissiveness may be perceived as less gender-appropriate for boys (Perry et al., 2001; Schwartz et al., 1993).

Two demographic variables helped discriminate between bullied and non-bullied groups. These were “parent education” and “child year level”. Parent education was a significant discriminant in all analyses except for the boys’ sample. We are not aware of previous research reporting on the relationship between parents’ level of education and child peer victimization. It may be, though, that more educated parents have had more exposure to information about parenting strategies. They may also be more comfortable communicating with the child’s school to address any bullying. The second demographic factor, child year level, is a significant discriminant in the whole sample and boys’ analyses, with the bullied group being older. Non-bullied and bullied groups for this sample had average school year levels of 2.5 and 3.2 respectively. Higher bullying with year level is consistent with previous Australian research which has found that, in lower elementary school years, bullying peaks around Year 4 before decreasing for the remainder of elementary school (Cross, 2007).

In conclusion, this study has demonstrated that the combination of facilitative parenting and child social skills and peer relationships is relevant to understanding the targeting of particular children for bullying at school. This is the first study, to our knowledge, to combine parenting and child peer relationships in discriminating between bullied and non-bullied children. Parenting is central to considering children’s capacity to form effective peer relationships and manage problems such as bullying because it has the potential to affect children’s social competence and emotional control relevant to difficult situations with peers. This study has drawn together those parenting behaviors associated with lower levels of child vulnerability to bullying under the name of facilitative parenting, and demonstrated that this concept has good internal consistency and can effectively discriminate between bullied and non-bullied children. The combination of facilitative parenting and child social and emotional skills could form the basis for a family-based intervention for children susceptible to bullying. A family-based intervention could include skills relevant to children including friendship and play skills, managing emotions, positive thinking skills, and skills to resolve conflict and respond to aversive behavior from peers. Parents could learn facilitative parenting strategies including being warm and responsive to children, encouraging appropriate independence, coaching children in handling conflict and peer problems and supporting development of child friendships.

There have not been any previous controlled studies of skills-based family interventions for children who are bullied. Inclusion of parents in an intervention for bullied children would provide two advantages over social skills training with children alone. Firstly, including parents provides scaffolding and support to enable children to continue to develop their skills and solve problems with peers over time. The benefits of involving parents in child interventions has previously been reported with children with conduct disorder (Kazdin, Siegel, & Bass, 1992) and anxiety issues (Barrett, Dadds, & Rapee, 1996) which are both issues of relevance to bullied children. Secondly, the relationship demonstrated in the current study between facilitative parenting and children’s receipt of bullying, interpreted in the context of previous longitudinal research which shows influence of elements of facilitative parenting on child outcomes, suggests that deliberately increasing facilitative parenting may help protect children against bullying and the internalizing consequences of bullying.

The contribution of this study needs to be interpreted in light of its strengths and limitations. The study used multiple informants and the sample was socioeconomically and culturally diverse. However the overall proportion of families who volunteered over the eight schools was low and the sample size of 215 relatively small. Our check of teachers’ perceptions of representative of the sample indicated that overall teachers viewed the sample as reasonably representative in terms of peer victimization. Having additional comparisons between families who participated and those who did not, would have provided further evidence of the representativeness of the sample. The use of teachers as sole informants on children’s bullying was another limitation of this study. Further research might utilize peer ratings as a measure of children’s bullying. This study introduced several new measures, which met specific purposes for this study, but they would benefit from further validation. The Facilitative Parenting Scale in particular may benefit from further exploration of factor structure using a larger sample. A final limitation of this study, which resulted from our use of a cross sectional design, is our inability to derive causal inferences. This study paves the

way for investigating the causal relationship between facilitative parenting and child bullying. This would best be studied in a longitudinal randomized controlled study that tests directly whether changes in facilitative parenting and children's social skill and peer relationships reduce incidents of bullying over time. We have recently completed a randomized controlled trial of a family program based on facilitative parenting and child social and emotional skills for children bullied by peers (Healy & Sanders, 2013).

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Table 1

Means, Standard Deviations and Inter-correlations between all Variables

Variable	Mean (SD)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. School	4.29 (2.02)	-															
2. Size of school	22.25 (2.07)	.31***															
3. Child Year Level	2.64 (1.69)	-.01	.02	-													
4. Child gender	1.49 (0.50)	.03	-.02	.00	-												
5. Parent education	5.01 (1.34)	.01	-.03	-.13	-.07	-											
6. Family income	2.34 (0.67)	.09	-.01	-.22**	.08	.30**	-										
7. Friendedness	4.22 (0.70)	.09	.18**	-.07	-.12	.05	-.00	-									
8. Internalizing cog	0.25 (0.18)	-.01	-.04	-.01	.00	-.13	-.01	-.54***	-								
9. Internalizing feel	0.84 (0.49)	.00	.11	-.03	-.09	-.04	-.04	-.19**	.38***	-							
10. Depression	1.65 (2.28)	-.05	.11	.15	.18	-.08	-.10	-.20**	.11	.19*	-						
11. Emotional symptoms	2.15 (2.30)	.02	.08	.02	.02	-.08	-.01	-.21**	.15*	.09	.56***	-					
12. Conduct probs	1.72 (1.79)	-.06	-.05	.01	.17*	-.08	-.15	-.16	.13	.10	.47***	-					
13. Assertiveness	4.05 (0.62)	-.05	-.07	-.12	-.15*	.17*	.14	.08	-.06	-.01	-.42***	-.45***	-.23**	-			
14. Withdrawal neg	3.12 (1.03)	-.05	.02	-.66***	-.04	-.03	.06	-.09	.10	.20**	.18*	.34***	.14	-.26***	-		
15. Reactive aggression	0.43 (0.98)	.01	-.03	-.08	.14*	-.10	-.04	-.24***	.37***	.23**	.18*	-.01	.16*	-.11	.06	-	
16. Facilitative Parenting	3.84 (0.36)	.00	-.05	-.14	0.22**	.16*	.27***	.16*	-.08	-.01	-.34***	-.25**	-.30***	.44***	-.11	-.21*	-
17. How much bullied	1.89 (1.14)	.01	.02	.27***	.09	-.20**	-.07	-.31***	.29***	.20**	.24**	.19*	.30***	-.14	-.07	.25***	-.29***
	Mean (SD)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

\*p<.05      \*\*p<.01      \*\*\*p<.001

Table 2

Results of Discriminant Analysis between Non-bullied and Bullied Groups (including students who bully)

Predictor Variable	Non-bullied (n = 87)	Bullied (n = 35)	Correlation with Discriminant Function	Tests of Equality of Group Means		
	Mean (SD)	Mean (SD)		Wilk's Lambda	F	p
1. School	4.08 (1.95)	4.40 (2.10)	.08	1.00	0.64	=.425
2. Size of school	22.23 (11.77)	23.69 (10.79)	.07	1.00	0.40	=.528
3. Year level of child	2.39 (1.70)	3.37 (1.44)	.32	.93	9.03	=.003**
4. Child gender	1.44 (0.50)	1.60 (0.50)	.17	.98	2.68	=.104
5. Parental Education	5.16 (1.23)	4.37 (1.24)	-.34	.92	10.26	=.002**
6. Income of family	2.43 (0.66)	2.29 (0.71)	-.11	.99	1.07	=.302
7. Friendedness	4.36 (0.55)	3.87 (0.86)	-.39	.89	14.17	<.001***
8. Internalizing cognitions	0.22 (0.16)	0.35 (0.22)	.40	.89	14.34	<.001***
9. Internalizing feelings	0.73 (0.48)	0.95 (0.59)	.23	.96	4.63	=.033*
10. Child depression	1.21 (1.82)	3.03 (3.04)	.43	.88	16.68	<.001***
11. Emotional symptoms	1.82 (2.01)	2.84 (2.78)	-.24	.96	5.16	=.025*
12. Conduct problems	1.23 (1.55)	2.89 (2.18)	.50	.84	22.26	<.001***
13. Assertiveness	4.11 (0.57)	3.86 (0.72)	-.22	.97	4.41	=.038*
14. Withdrawal negativity	3.15 (1.12)	2.86 (0.92)	-.14	.99	1.86	=.175
15. Reactive aggression	0.23 (0.69)	1.03 (1.47)	.43	.88	16.71	<.001***
16. Facilitative Parenting	3.91(0.33)	3.63 (0.34)	-.44	.87	17.90	<.001***

\* p&lt;.05

\*\*p&lt;.01

\*\*\* p&lt;.001

Table 3

Results of Discriminant Analysis between Non-bullied and Bullied Groups after excluding children reported to bully (retaining “passive victims”)

Predictor Variable	Non-bullied (n = 76)	Bullied (n = 24)	Correlation with Discriminant Function	Tests of Equality of Group Means		
	Mean (SD)	Mean (SD)		Wilk's Lambda	F	p
1. School	4.13 (1.95)	4.04 (2.20)	-.02	1.00	0.37	=.849
2. Size of school	22.53(11.98)	26.29 (8.36)	.17	0.98	2.05	=.155
3. Year level of child	2.50 (1.69)	3.21 (1.41)	.22	0.97	3.46	=.066
4. Child gender	1.46 (0.50)	1.54 (0.51)	.08	1.00	0.47	=.493
5. Parental Education	5.08 (1.24)	4.46 (1.32)	-.25	0.96	4.43	=.038*
6. Income of family	2.42 (0.66)	2.33 (0.64)	-.07	1.00	0.33	=.568
7. Friendedness	4.42 (0.53)	3.83 (0.87)	-.47	0.86	16.08	<.001***
8. Internalizing cognitions	0.20 (0.15)	0.37 (0.18)	.51	0.84	19.28	<.001***
9. Internalizing feelings	0.72 (0.49)	0.92 (0.58)	.19	0.97	2.77	=.099
10. Child depression	0.94 (1.48)	3.13 (3.37)	.52	0.83	20.15	<.001***
11. Emotional symptoms	1.39 (1.56)	2.56 (2.90)	.30	0.94	6.49	=.012*
12. Conduct problems	0.83 (1.02)	2.04 (1.85)	.48	0.86	16.67	<.001***
13. Assertiveness	4.15 (0.56)	3.91 (0.77)	-.20	0.97	2.88	=.093
14. Withdrawal negativity	3.08 (1.09)	2.85 (0.98)	-.11	0.99	0.81	=.369
15. Reactive aggression	0.25 (0.73)	1.13 (1.39)	.47	0.86	16.13	<.001***
16. Facilitative Parenting	3.92 (0.32)	3.65 (0.36)	-.48	0.88	12.92	=.001**

\* p&lt;.05

\*\*p&lt;.01

\*\*\* p&lt;.001