VOLUME 53 PART 5 pp 450-462 MAY 2009

Thinking about feelings: emotion focus in the parenting of children with early developmental risk

J. K. Baker¹ & K.A. Crnic²

I University of Miami, Department of Psychology, Coral Gables, FL, USA

2 Arizona State University, Department of Psychology, Tempe, AZ, USA

Abstract

Background Children with developmental delays exhibit more difficulty with certain emotional processes than their typically developing peers, which seems to partially account for the increased risk for the development of social problems in this population. Despite considerable study with typically developing populations, research on parental emotion socialisation in families of children with delays is scarce. This study examined the degree to which parents of children with early delays prioritised emotion relative to other important areas of child development and the degree to which they focused on emotion during relevant interactions with their children.

Method Families of 8-year-old children with (n = 42) and without (n = 89) early developmental delays completed questionnaires and interviews, and participated in a parent-child emotion discourse task.

Results As predicted, parents of children with developmental delays reported lower prioritisation of emotion and focused less on emotion during discourse than did parents of typically developing children. A model was supported in which a pathway

existed from developmental status through prioritisation to emotion focus. Emotion focus, in turn, predicted children's social skills as reported on by multiple informants.

Conclusions Parents of children with early developmental delays may focus upon emotion less in their parenting than parents of typically developing children, and related behaviours show associations with children's social skill outcomes. Findings are discussed as an initial step in thinking about the role of emotion socialisation in the families of children with delays.

Keywords developmental delay, emotion, parental beliefs, parents, risk, socialisation

Introduction

Studies of typically developing children have generated a wealth of evidence for the centrality of emotion in the development of children's problems and competencies. Children who experience difficulties in the ability to manage their emotional arousal and associated behaviours have been found to exhibit more behaviour problems, poorer social skills, poorer academic achievement and higher rates of clinically significant psychological symptoms (Rubin *et al.* 1995; Cole *et al.* 2003; Howse

Correspondence: Dr Jason K. Baker, University of Miami, Dept. of Psychology, P.O. Box 248185, Coral Gables, FL 33124-0751, USA (e-mail: jbaker@psy.miami.edu).

et al. 2003; Rydell *et al.* 2003). Indeed, it has been suggested that difficulties with core emotion-related processes may represent a common thread underlying a range of psychological disorders (Cole *et al.* 1994).

In stark contrast to research on typically developing populations, little is known about the role that core emotion processes play in the development of problems and competencies among children with developmental delays (see Kasari & Bauminger 1998, for discussion of related literature). The relative dearth of research in this area is even more concerning given consistent evidence that children with developmental problems are at considerable risk for all the aforementioned difficulties. Previous work with the present sample has identified substantial risk for serious behaviour problems in children with delays as early as age 3, with over a quarter of these children scoring within the clinical range (Baker et al. 2002). Similarly, a large-scale epidemiological study performed in UK by Emerson (2003) reported rates of psychiatric diagnoses among 5- to 15-year-old children with intellectual disabilities as high as 39%, in contrast to only 8.1% of the typically developing sample. Finally, and most relevant to the current study, children with developmental delays are at considerable risk for social skill deficits (Guralnick & Groom 1987; Kopp et al. 1992; Guralnick et al. 1998; Baker et al. 2007; Wilson et al. 2007) and other problems in peer-related social competence that create heightened vulnerability to social isolation (Guralnick & Groom 1987, 1988).

To our knowledge, only two very recent studies have empirically examined core emotional processes as mechanisms through which developmental status may place children at risk for poor social outcomes. Our laboratory examined emotion regulation at age 4 years as a predictor of social skills at age 6 years among children with and without early developmental delays (Baker et al. 2007), and Wilson et al. (2007) investigated these processes in Caucasian boys between the ages of 6 and 8 years. Despite many important differences in sample characteristics and research design, both studies generated remarkably similar results. In each study, children's emotion regulation partially mediated the relation between developmental status and social outcomes, suggesting that core emotion processes may be key

to understanding the struggles that children with delays encounter in the social realm.

Converging evidence for the importance of emotion in young children with developmental delays should incite efforts to better understand how relevant abilities develop within this population. Although biological contributions to children's emotion regulation cannot be underestimated, a wealth of evidence and theory from the study of typically developing children has consistently identified early parenting as a central factor in the development of children's emergent regulatory abilities (e.g. Eisenberg et al. 1998; Morris et al. 2007). Along with parental reactions to children's emotion and parents' own expressiveness, the manner with which parents discuss emotion with their children is considered a primary component of emotion socialisation (Eisenberg et al. 1998). Indeed, the frequency of mothers' references to internal states during conversations with their children has been associated with children's own emotion understanding and use of internal state language (e.g. Dunn et al. 1987; Dunn & Brown 1991; Denham & Auerbach 1995). These findings suggest that the extent to which parents emphasise emotional content may be an important factor contributing to the formation of children's social competencies. Building upon this work and the research of Fivush et al. (2000), the current study examined parents' emotion focus, or the degree to which parents focused on emotional aspects of a situation, as compared with other aspects, during discussions with their children.

The concept of emotion focus may have particular relevance to the socialisation of emotion in children with early developmental delays. Assessment of the degree to which a parent focuses on certain aspects of a situation necessarily requires consideration of how parents balance attention to some areas over others. The term diagnostic overshadowing has been used to describe the tendency for individuals, particularly mental health professionals, to overlook emotional/psychological aspects of people with disabilities in favour of characteristics more closely tied to the nature of the disability (e.g. cognitive and adaptive behaviour deficits; Reiss et al. 1982). Efforts have been made to refocus attention on the social and emotional processing of children with delays (Greenspan 1979), and this push has

gradually gained momentum among research disciplines and service delivery systems. Little is known, however, about how parents of children with developmental delays conceptualise the role of emotion and/or emotion socialisation in their children's development.

Although it is currently unclear as to whether parents of children with developmental delays are aware of the heightened risk for social-emotional problems in their children (in contrast to the more salient risk for adaptive behaviour and learning problems), if a parent chooses to focus on one area of development over another, it is likely more a result of parents' priorities than a lack of awareness. Dix (1991) suggests that parenting behaviours are driven largely by the concerns that a parent holds for a particular interaction. Parents may, and often do, have multiple goals for the same interaction, and the resultant parenting behaviours are shaped by the relative importance of the various goals. What goals are ultimately prioritised most highly can be determined by parents' personal concerns for themselves (e.g. getting the child's shoes on quickly so as to leave the house), their child-rearing values, and/or the particular needs of each child. Parents of children with early delays may face unique parenting challenges and may also adapt their parenting style substantially in response to their children's needs. Thus, a parent of a child with special needs may perceive their role as a parent somewhat differently (e.g. as a behaviour modifier and/or teacher) than a parent of a child without developmental risk.

Although there is very little research on the prioritisation of emotion specifically in the parenting of children with delays, some evidence for the importance of priorities exists. Floyd & Saitzyk (1992) theorised that the increased need for greater parental directiveness and control in families of children with delays may make it more difficult to value initiative and independence in these children (Davis et al. 1988). Indeed, a great deal of work has focused on the high levels of directiveness observed in interactions between mothers and their children with disabilities, primarily Down syndrome (Cardoso-Martins & Mervis 1985; Marfo 1990). It has been argued that increased directiveness should not be considered inherently negative and that it likely reflects reasonable, and perhaps even beneficial adaptation to the children's needs (Marfo 1990). However, others have suggested that such directiveness, while potentially beneficial for the children's short-term cognitive development, may not be optimal for long-term social-emotional development (Ganiban *et al.* 2000).

An investigation by Kopp et al. (1992) examined parent's focus on various areas of parenting and found that while families of children with and without developmental delays did not differ on reported levels of teaching social skills, parents of children with developmental delays reported higher levels of teaching 'other skills' than parents of typically developing children. The findings of Kopp et al. suggest that differential profiles may exist, contingent upon child status, whereby social skills represent less of a priority (as compared with 'other' skills) within families of children with developmental delays. This may also be the case for emotion. For example, Tingley et al. (1994) provided evidence that mothers may use fewer emotion words in discussions with their children with Down syndrome than mothers of typically developing children.

The current study

The current study investigated the potential for parents of children with early developmental delays to report a lower prioritisation of emotion in their parenting relative to other areas of development, and to exhibit less of a focus on emotion in parentchild interactions. Parental prioritisation was examined in detail, with a focus on determining whether or not parents perceived their children with delays as at heightened risk for emotional problems, and by examining how the prioritisation of emotion related to parents' other priorities for their children. Finally, to assess the functional significance of any group differences, a process model was tested that predicted pathways between children's early developmental status, parent priorities, parent-child emotion focus and children's social skills.

Studies of parent-child emotion discourse have largely focused on pre-school-aged children. In order to enhance understanding of these processes in middle childhood, the current study focused on families with 8-year-olds. As children enter middle childhood, they come to possess a more complex understanding of the interplay between emotional

and cognitive states, contributing to the expression of mixed and self-conscious emotions, increased knowledge of emotional display rules and improved interpretation of others' emotional experiences (Saarni *et al.* 1998; Denham & Kochanoff 2002). Such key developmental advances in children's emotion understanding likely allow for increased comprehension of more sophisticated emotion discourse, making this an important time to study emotion socialisation.

Method

Participants

Participants were 131 families drawn from an ongoing longitudinal study designed to examine the emergence of social-emotional problems and competencies in children with and without early developmental delays. The current study included families for whom the requisite data were available at ages 3 and 8 years. Children were assigned to either the typically developing status group (n = 89)or the group of children with early developmental delays (n = 42) based upon an age-3 Mental Developmental Index (MDI) over or under 85 respectively, on the Bayley Scales of Infant Development, 2nd edition (BSID-II; Bayley 1993). The mean MDI for the typically developing group was 105.10 (SD = 11.83, range 85-139), and for children with delays was 64.14 (SD = 10.55; range 43-84). Fortythree per cent of the children were female, and mothers reported their children's race as follows: 61% Caucasian, 15% Hispanic, 7% African-American, 2% Asian and 16% 'other' (usually multi-racial). Mean family income fell between \$50 000 and \$70 000 per year, and 22% of families were headed by single mothers. Families resided in either Southern California or rural Pennsylvania and were recruited through local regional centres and pre-schools. Group comparisons (t-tests or chisquared tests, as appropriate) found no significant differences on any variable of interest based on research site for this sample. Exclusionary criteria for the larger study at age 3 included autism and significant neurological and/or motor impairment. Although diagnostic testing for specific syndromes did not occur, a small number of children were known at intake to have had Down syndrome;

however, the requisite data for the present study were not available for these children.

For inclusion in the current study, families were required to have age 3 status data, ratings of either priorities or focus at age 8 years (96% of families had both) and social skill ratings from at least one informant (88% of families had data from at least two sources). Relevant to characterisation of this sample, analyses from the larger longitudinal study indicated that participants included in the study at age 8 years did not differ significantly from the 238 originally enrolled in the project at age 3 on any of the 20 child, family, or demographic variables considered (including developmental status, family home interaction and family income).

Procedures

Procedures were implemented as approved by the internal review boards of the participating universities. Once identified as potential participants at child age 3 years, parents provided written consent and the BSID were administered to determine status group assignment. The 8-year time-point consisted of a single home visit and parent completion of questionnaires. During the visit, families participated in a number of structured tasks and interviews, including those used in the current study to measure emotion focus and parents' reports of priorities. Each parent participated with their child in an emotional discourse task that was adapted from procedures used to elicit parent-child discussion of emotion (e.g. Fivush et al. 2000). Parents were told to think of a recent incident when the child was 'upset'. The parent and child were then asked to talk about the incident until they felt they were finished. The discourse was ended at 3 min if the dyad did not indicate that they had finished prior to this period. Mothers and fathers engaged in the discussion separately with the focal child and were asked not to discuss the generated incidents in advance. Fathers participated first, and mothers were situated so as to prevent overhearing the initial dyad's discussion.

Parents also participated in the priorities interview separately and did not overhear their partners' interviews. Parents were told that, although parents are likely interested in all aspects of their children's development, the study was interested in learning

what areas were most important to them in parenting the target child. Parents were then given 10 poker chips and told that these chips represented 'importance'. A sheet was placed in front of the parent with five circles, each labelled with an area of child development (e.g. 'Development of Living Skills/Independence', 'Emotional Development', etc.) and the parent was told to assign poker chips to each circle. Placing many chips in a particular area indicated that the area was very important to them as parents. Placing few or no chips in a particular area suggested that the area was not very important to them. Parents were informed that they did not have to use all the chips. At the end of the visit, parents were given a packet of questionnaires to complete and to return by mail. They were asked to fill these out separately so that the independent perspectives of each parent could be obtained.

Measures

Child developmental status. As discussed above, the MDI score from the BSID-II at age 3 years was used to determine early developmental group status. Although parenting beliefs and behaviours are certainly flexible, age 3 developmental status was chosen because of our interest in whether early child risk status could set the stage for certain parenting dynamics to become established that might colour subsequent interactions over time.

Parent priorities were measured through the priorities poker-chip task. The areas that appeared on the sheet included: development of living skills/ independence, academic development, emotional development, physical development and development of social skills. The number of chips placed in each circle was summed and recorded on the sheet. This allowed for a quantitative representation of the *relative* importance that parents place on each area, on a scale ranging from o (no chips) to 10 (all the chips).

Parent perceptions of their child's developmental risk were obtained in order to determine whether or not parents of children with developmental delays were aware of their children's increased risk for emotional difficulties. These perceptions were measured through a brief set of questions that appeared in the parent booklets. This scale asked the parents to report on how well they perceived their child to be developing in the areas that were included in the priorities task (e.g. academic development, emotional development, etc.). Parents were asked to rate their child's progress on a scale ranging from I ('My child is progressing very well in this area') to 5 ('My child is not progressing well in this area at all'), with 3 as a midpoint ('My child is progressing somewhat well in this area'). This set of questions was developed for the current study and the psychometric properties were assessed through convergence with other relevant constructs and through parental agreement. Although the validity of this scale did not require that responses necessarily relate to actual child progress (given that the scale attempted to measure perceptions and not actual development), it was reasonable to assume that some association would be present. Therefore, each parent's responses were compared with those of their spouse in order to partially assess the validity of this scale. Mother-father agreement on the two relevant variables in the current study were consistent with expectations in that some agreement existed, but was not high enough to exclude the role of independent perceptions (independent living skills r = 0.47, P < 0.001; emotion = 0.60, P < 0.001). Association with parent ratings of child behaviour problems was also examined, as indicated in the results section.

Child behaviour problems: Parent report of children's total behaviour problems on the Child Behavior Checklist (CBCL; Achenbach 2000) was obtained for purposes of examining construct validity of the perception of risk measure.

Parental emotion focus during discussion was measured through coding of the emotion discourse task. Undergraduate coders rated from videotape the amount of event-related (i.e. not relating to emotional aspects of the event) discussion by the parent vs. discussion about emotional aspects of the event (i.e. 'Emotion-Focus'), using procedures outlined by Fivush *et al.* (2000). Ratings were made on a scale ranging from I (*heavily focused on behavioural aspects*) through 3 (*even focus between emotional and behavioural aspects*) to 5 (*heavily focused on emotion*). Parents rated as a 'I' generally led their children through sequences of physical events (e.g. 'This happened, then this happened') and/or investigated topics unrelated to emotion (e.g. what food was

eaten). Parents scoring a '5' appeared to use the discourse as a spring-board for exploring emotional content related to the event (e.g. how the child felt, how they regulated their emotions), with the specific actual event assigned a secondary position in the discourse. Inter-rater reliability was calculated on 25% of the tapes using intra-class correlations, and acceptable reliability was obtained (father = 0.80; mother = 0.81).

Children's social skills were measured through mother, father and teacher report on the Social Skills Scale of the Social Skills Rating System (SSRS; Gresham & Elliott 1990). The SSRS is a widely used questionnaire that has adequate reliability and validity, and provides a broad assessment of social skills, problem behaviours and academic competence. Only the Social Skills Scale was used for the current study, which included ratings of the child's responsibility (parent version only), cooperation, self-control and assertiveness. The Social Skills Scale has high test-retest reliability and internal consistency (Gresham & Elliott 1990). The parent and teacher forms are not identical and measure the child in different contexts. Thus, parent and teacher ratings on the Social Skills Scale are typically only modestly, but significantly, correlated (Gresham & Elliott 1990).

Results

Preliminary analyses, descriptive data and data reduction

Status group differences existed on mean educational grade level achieved by both mothers (typically developing = 16.11; developmental delays = 14.63) and fathers (typically developing = 16.08; developmental delays = 14.50), and on family income. However, father educational level and family income no longer differed by status group once maternal education was taken into account, so only maternal education was controlled in relevant analyses. Child status group did not differentiate between single and married mothers as per chi-squared analysis (80% married typically developing mothers, 73% married developmental delays mothers).

Descriptive data for relevant variables are presented in Table I. Mothers' and fathers' ratings of priorities and emotion focus were combined (averaged) for use in the model, in order to best represent the entire, family-level climate to which the children were exposed. From a systems perspective, analysis of either mothers' or fathers' behaviour without taking into account partner behaviour would not be optimal. Because a comprehensive

Table I Descriptive Data for variables of interest by child status group

Variable	Typically developing		Developmental delays			
	Mean	SD	Mean	SD	Significance of difference between groups [†]	
Parent priorities						
Living skills	1.97	0.57	2.21	0.67	P < 0.05	
Emotion	2.26	0.54	2.11	0.67	P < 0.05	
Perceived child risk						
Living skills	1.64	0.73	2.32	1.01	P < 0.001	
Emotion	1.75	0.78	2.38	1.06	P < 0.01	
Parent emotion focus	2.52	1.13	1.91	0.87	P < 0.05	
Child social skill ratings						
Mother report	102.48	16.54	89.61	17.47	P < 0.01	
Father report	101.28	13.78	88.76	15.67	P < 0.01	
Teacher report	102.73	12.09	94.62	11.89	P < 0.01	

[†] With maternal education controlled, as appropriate.

analysis of gender differences in parenting and emotion was beyond the scope of this study, the use of a family average was thought to be the best way to characterise the overall family context. Although process-level differences were not examined, it is notable that mothers reported a higher prioritisation of emotion than did fathers, t(125) = 3.16, P < 0.01, but no parent-gender differences were found in the level of observed emotion focus during parent-child interaction.1 Mothers' and fathers' ratings of emotion focus during the discourse task were correlated, r = 0.25, P < 0.01, as were their ratings of child developmental risk (see above). Parents' ratings of the prioritisation of emotion were not significantly correlated, r = 0.13, P = 0.13, but were nonetheless combined given the theoretical rationale outlined above. The priorities, perceived risk, and emotion focus ratings for the single-mother families were represented by maternal scores only. Scores did not differ on any variable of interest between single-parent and two-parent families except for emotion priorities. Mother-only families exhibited a significantly lower emotion priority score than did mother–father families, t(128) = 6.30, P < 0.001; however, the lack of associations between father presence and all other variables of interest indicated that it was not necessary to control for this variable.

In addition to examining parent agreement, validity for the risk-perceptions measure was also assessed by comparing the composite rating (utilised in the analyses) with a composite of parents' ratings of total problems on the CBCL. Parent agreement on the CBCL was moderate, r = 0.60, P < 0.001, and scores for mothers and fathers were averaged. Parents' ratings of emotional risk showed a moderate association with their ratings of child behaviour problems, r = 0.60, P < 0.001, providing some convergent and discriminant validity. Parents' ratings of daily living skills risk were also associated with CBCL ratings, but somewhat less so, r = 0.52, P < 0.001, suggesting some specificity to the individual risk ratings but also generating slight concern given that emotion risk ratings theoretically should have been more highly correlated with the CBCL

¹ Note that the order of discussions was not counterbalanced, so parent-gender comparisons should be examined with caution. than were living skills ratings. It was likely that the shared method variance and construct overlap between the risk domains inflated the association between daily living skills risk and the CBCL. Partial correlations were thus used to examine the unique association of each risk rating with the CBCL. These findings suggested increased specificity in that the emotional risk ratings were more highly associated with the CBCL, partial r = 0.41, P < 0.001, than were ratings of daily living skills, partial r = 0.21, P < 0.05. Although these correlations were not significantly different, they more closely resemble associations that would be expected between the particular risk and CBCL ratings.

Status group differences

As predicted, with maternal education controlled, families of children with early developmental delays reported prioritising emotion less in their parenting, $F_{1,128} = 4.08$, P < 0.05, and were rated as being less focused on emotion during the parent–child discourse task, $F_{1,122} = 4.73$, P < 0.05. Children with early delays were also rated lower on social skills by mothers, $F_{1,120} = 11.37$, fathers, $F_{1,94} = 9.29$, and teachers, $F_{1,99} = 9.31$, P < 0.01.

Examination of priority profiles

Visual examination of the priority profiles suggested that the lower relative value of emotion reported by parents of children with early developmental delays was likely due at least partially to the increased prioritisation of daily living skills. Indeed, parents of children with early delays reported prioritising the acquisition of daily living skills more than parents of typically developing children, t(128) = -2.07, P < 0.05 whereas emotion was prioritised less (see above). Although paired t-tests within status groups did not reveal a significant difference between emotion and daily-living skills priorities among parents of children with delays, the mean for daily living skills was higher than that of emotion in this group, as compared with significantly higher ratings for emotion priorities over daily livings skills reported by parents of typically developing children, t(83) = 12.77, P < 0.001. With regard to perceptions of risk, status group differences on emotion,

 $^{{\}ensuremath{\mathbb C}}$ 2009 The Authors. Journal Compilation ${\ensuremath{\mathbb C}}$ 2009 Blackwell Publishing Ltd

t(125) = -3.43, P < 0.01, and living-skills risk ratings, t(125) = -3.93, P < 0.001, suggested that parents were aware of the increased risk for problems with *both* living skills *and* emotion for their children with delays. However, while increasing their prioritisation of living skills, parents of children with delays prioritised emotion less than parents of typically developing children.

Testing of the model

The overall structural equation model was tested using Amos version 6 (Arbuckle 2005). Of the 131 families, 99% of priorities data was available for model testing, as was 96% of emotion focus data. Ninety-four per cent of these children had maternal report data from the SSRS, 74% had father SSRS and 78% had teacher SSRS. Given the clear benefits of estimating data over excluding missing cases for purposes of structural equation modelling, missing data were estimated using full information maximum likelihood (Enders & Bandalos 2001).

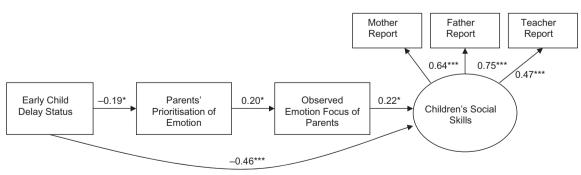
Correlations among measured variables used in the model are presented in Table 2. Three criteria were employed to evaluate model fit: the chi-squared test, the Comparative Fit Index (CFI) and the root mean squared error of approximation (RMSEA). A non-significant chi-squared value indicates acceptable model fit, as do CFI values above 0.90 (range 0-1.00) and RMSEA values below 0.08. Data supported the proposed model, seen in Fig. 1, which exhibited adequate-to-good fit, χ^2 (12) = 17.14, ns, CFI = 0.94, RMSEA = 0.06. Furthermore, all pathways between indicators and the latent social skills construct, and between the constructs of interest, were significant (see Fig. 1 for standardised betas), supporting both the measurement and structural models. Maternal education was controlled in the model but does not appear in the figure for clarity of presentation. As predicted, early developmental status predicted emotion prioritisation in parenting, which related to the degree to which parents focused on emotion with their children. Emotion focus in turn related significantly to children's

 Table 2 Correlations among measured

 variables used in the model

Variable	I	2	3	4	5
Early child developmental status					
Parent prioritisation of emotion	-0.25**	0.00*			
Parent observed emotion focus	-0.26**	0.20*			
Child social skills: Mother report	-0.34***	0.06	0.23*		
Child social skills: Father report	-0.37***	-0.03	0.20†	0.51***	
Child social skills: Teacher report	-0.29**	0.25*	0.18†	0.22*	0.36**

* P < 0.05, ** P < 0.01, *** P < 0.001, † P < 0.10.



*P< 0.05, ***P< 0.001

Figure I Structural equation model illustrating pathways between children's early developmental delay status, parents' prioritisation of emotion and focus on emotion, and child social-skill outcomes. *P < 0.05, ***P < 0.001.

social skill outcomes and was significantly associated with social skills above and beyond the variance predicted by child developmental status.

Discussion

Emerging evidence now suggests that difficulties with core emotion processes may partially account for the increased risk for poor social outcomes present among children with developmental delays (Baker et al. 2007; Wilson et al. 2007). These previous findings, coupled with evidence for the increased importance of parenting in the development of children with delays (Baker et al. 2007), suggest that parental emotion socialisation may represent a crucial area of consideration for both parents and professionals. Findings from the current study suggest that, despite the apparent benefits of increased attention to emotion in this population, parents of children with delays may make reasonable adjustments in their parenting that actually result in less focus on emotion. Furthermore, relations between prioritisation, actual emotion focus and children's social skills suggest that this lower prioritisation may not be without consequence.

Implications for research and intervention

Parents of children with delays in the current study reported an awareness of their children's risk in areas related both to adaptive functioning and emotion, indicating that these parents were not overlooking or dismissing their children's difficulties in the emotional realm. Instead, a priority framework appears apt for describing the phenomenon, whereby parents weigh their children's various needs and choose to focus on a particular area over another. Further investigation into the specific factors responsible for these decisions is necessary. It is possible that parents' reduced focus on emotion may represent a lack of awareness regarding the importance of emotion in their children's behavioural and social development, and/or the lack of guidance concerning how best to address their children's emotional needs. Indeed, there is a long history of behaviour management and skill building intervention with parents of children with delays

(Baker 1996), but a paradigm for guiding these families in the socialisation of emotion specifically has not yet been developed. Alternatively, it is possible that parents' priorities reflect a perceived hierarchy of needs (Maslow 1943), whereby certain personal achievements are thought to depend upon other, more rudimentary achievements. A relative focus on the acquisition of daily living skills may represent parents' beliefs that their children's emotional lives may be largely dependent upon their ability to function adequately on a practical level. The degree to which children's emotion regulation abilities may facilitate or impede the development of adaptive functioning, and vice versa, is an important area for future research.

Noteworthy is the high likelihood of developmental change in parent priorities over time, particularly among parents of children with delays. As these children move into adolescence and prepare for adulthood, parental concerns regarding independent functioning are likely to intensify which may, in turn, alter parenting behaviour. Similarly, parents may show individual differences in the degree to which they consider long-term goals during their children's early and middle childhood years. Investigation into how parents' hopes and expectations for their children's futures might influence early prioritisation and parenting behaviour would be interesting.

Considerable attention has been paid to fostering social skills in children with delays. These efforts have focused primarily on the teaching of social skills (Gresham *et al.* 2001) or on working with parents to improve their social coaching abilities (Guralnick *et al.* 2006). Although some overlap likely exists between parental social coaching and emotion socialisation behaviours, intervention efforts have not generally focused on children's emotional development specifically. As the socialisation of emotion in families of children with developmental delays is better understood, implications for infusing emotion-related parenting practices into social skills interventions for these children are likely to abound.

Important research has taken a developmental approach to the study of social skills in children with intellectual disability through examination of social-cognitive abilities (e.g. Leffert, Siperstein & Millikan 2000). Early models of social cognition designed to understand processing in typically

developing children included references to emotion, but did not emphasise the role of core emotion processes (Crick & Dodge 1994). More recent adaptations have argued for the centrality of emotion in social-information processing (e.g. Lemerise & Arsenio 2000), but little is known about the relationship between emotion regulation and social cognition in children with delays. Relevant to the current study, it is possible that parent–child emotion-related discourse, found to promote emotional understanding in typically developing children, may also provide a platform for the development of social cognitive abilities in children with and without developmental delays (Fenning & Baker 2008).

The current study examined the degree to which parents focused on emotion, which must be distinguished from the *quality* of emotion socialisation provided. Convergent findings involving this sample (Baker et al. 2007) and others (e.g. Guralnick et al. 2008) suggest that parents are able to provide sensitive, developmentally appropriate scaffolding to their children with delays. It is possible that, despite a lower focus on emotion, parents of children with delays may continue to provide high quality emotion socialisation on par with parents of typically developing children. Indeed, findings from Kopp et al. (1992) found that parents of children with Down Syndrome prioritised social facilitation less than the teaching of other areas, but did not differ from parents of typically developing children in the degree to which they reported teaching their children social skills. In the current study, however, relative emotion focus was positively related to social skills for the entire sample, suggesting that the quantity of attention itself represents an important correlate or potential causal factor in the development of children's social skills. These findings are consistent with studies utilising typically developing samples that found that proportions of emotion talk (regardless of quality) related to later child emotional competence (e.g. Dunn et al. 1987). This study represents one of the first investigations to apply an emotion-socialisation framework to families of children with delays, and considerably more information is needed in this area. Studies examining the quality of emotion socialisation behaviours in families of children with and without delays, including parents' reactions to child emotion, own

expressiveness and emotion coaching, would be particularly helpful.

The present study took a family-level approach to investigating emotion socialisation by combining mother and father variables. Impressive work in the study of parent and child gender differences in emotion talk have suggested the presence of extremely complex processes (e.g. gender-byemotion type interactions, suggestion of parent-bychild gender interactions – Fivush *et al.* 2000), and a comprehensive analysis of gender differences in emotion socialisation was beyond the scope of the present study. Future studies examining how parent and child gender may interact with child developmental risk in emotion socialisation would be interesting.

Study limitations

Several limitations are present in this study. First, children were matched on chronological rather than mental age. Debate exists as to whether children with mild-to-moderate cognitive delays exhibit qualitatively different intelligence profiles as compared with typically developing children or whether the cognitive functioning of these children is similar in structure and sequence to younger typically developing children (Bennett-Gates & Zigler 1998). To our knowledge, this debate has not yet addressed models of children's emotional development, and it is currently unclear as to whether or not children with delays exhibit similar or qualitatively different forms or trajectories of emotional development than typically developing children. Indeed, the substantially higher diagnostic rate of psychiatric disorder in children with disabilities provides convincing evidence for a 'difference' perspective in this area, in that most typically developing children do not move through stages of emotional behaviour indicative of psychopathology. Indeed is it possible that transactions between children's cognitive delays and chronologically age-based life circumstances may partially account for the development of social-emotional difficulties in this population. This may be particularly true with regard to the parenting of children with delays, where chronologically age-influenced life circumstances and/or expectations from parents may transact with child difficulties to challenge parent-child interaction

(Fenning et al. 2007). Information on how parents think about and address the emotional development of their children with delays is not available to guide the field as to how to match participants in this area, nor does there appear to be convincing knowledge from the typically developing literature as to how parents prioritise aspects of their children's development in this regard. Although there are costs and benefits to each approach (Kasari & Bauminger 1998), inclusion of a mental-age matched group would provide additional information - specifically regarding the extent to which parent differences in emotion prioritisation and focus may be tied to children's developmental level. However, it is important to note that parents were not rated on the *complexity* of emotion talk, but rather the degree to which they focused on emotion, which is more independent of child functioning and could reflect the most basic of behaviours (e.g. labelling of emotions). Furthermore, the overall mental age of the sample with delays would approximate a period of development in which parent-child discourse about emotion is thought to be prevalent, and typically developing children as young as 2 years of age have shown the ability to identify feeling states and to discuss their causes (Dunn et al. 1987). It is a limitation of the current study that data were not available longitudinally for parent priorities and emotion focus, and this information would prove valuable in clarifying the course of these beliefs and behaviours over time.

Another limitation is that the priorities task was chosen with the assumption that parents have limited resources and that increased attention to one area must reduce attention to another (i.e. that priorities are a 'zero-sum game'). However, it was believed that the alternative approach – allowing each parent to rate the highest score for every area, would be even more problematic. Future approaches to the study of priorities that are able to appreciate both the 'balanced' nature of priorities and the fact that parents likely differ in their absolute levels of effort and resources would provide valuable information. Similarly, the boundaries between priority areas were arguably less distinct than the titles suggested (e.g. emotional and social development are obviously closely related). However, the simultaneous presentation of all areas to the parent and the forced-choice format likely

assisted the parents in discriminating between these areas. In addition, the sample size utilised in the present study was relatively small for latent variable modelling and it will be important to replicate results with a larger group. Also, findings showed that the hypothesised model was supported, but this does not rule out the possibility that some alternative models may also show promise. The present study was not intended to definitively outline direction of effects but rather to highlight the importance of emotion priorities and focus and to situate these constructs within the larger web of families and development. Finally, because of our interest in developmental risk broadly defined, children with undifferentiated developmental delays were most heavily targeted for initial enrolment, and subsequent, specific diagnostic information was not available, leaving the examination of differences by specific diagnostic groups and/or aetiologies a fruitful avenue for future research.

The current study is thought to represent a first step in considering how parents of children with early developmental delays think about their children's emotional development and how these schemas might translate into parenting behaviour and, in turn, relate to child development. Although it would be premature to draw strong conclusions at this point, this study provides preliminary evidence for the usefulness of integrating parentalbeliefs and emotion-socialisation frameworks in the study of families of children with developmental delays, which has important implications for both researchers and service professionals working with this population.

Acknowlegements

Data collection for this study was funded through The Collaborative Family Study, supported by National Institute for Child Health and Human Development Grant 34879-1459 (K. Crnic, principal investigator; B. Baker, J. Blacher & C. Edelbrock, co-investigators). Preparation of this manuscript was funded through the above grant as well as University of Miami training grant NICHD T32 HD007473-14. This study utilised data drawn from the dissertation of the first author at the Pennsylvania State University and a portion of these data was presented at the 2008 Gatlinburg Conference,

San Diego, CA. We thank the staff and students of the CFS Study for assistance with data collection, and UCLA undergraduates Merz, Fox, Hinohara, Dickson, Avedissian, Khodari & Song for the coding of observational data. Most importantly, we thank the children and families of the CFS Study for their generous time and effort.

References

- Achenbach T. M. (2000) Manual for the Child Behavior Checklist 11/2-5. University of Vermont, Department of Psychiatry, Burlington, ON.
- Arbuckle J. L. (2005) Amos 6.0 User's Guide. Amos Development Corp., Spring House, PA.
- Baker B. L. (1996) Parent training. In: Manual of Diagnosis and Professional Practice in Mental Retardation (eds J. Jacobson & J. Mulick), pp. 289–99. American Psychological Association, Washington, DC.
- Baker B. L., Blacher J., Crnic K. A. & Edelbrock C. E. (2002) Behavior problems and parenting stress in families of three-year-old children with and without developmental delay. *American Journal on Mental Retardation* 107, 433–44.
- Baker J. K., Fenning R. M., Crnic K. A., Baker B. L. & Blacher J. (2007) Prediction of social skills in 6-year-old children with and without developmental delays: contributions of early regulation and maternal scaffolding. *American Journal on Mental Retardation* **112**, 375–91.
- Bayley N. (1993) *Bayley Scales of Infant Development*. The Psychological Corporation, San Antonio, TX.
- Bennett-Gates D. & Zigler E. (1998) Resolving the developmental-difference debate: an evaluation of the triarchic and systems theory models. In: *Handbook of Mental Retardation and Development* (eds J. Burack, R. Hodapp & E. Zigler), pp. 115–31. Cambridge University Press, New York.
- Cardoso-Martins C. & Mervis C. B. (1985) Maternal speech to prelinguistic children with Down syndrome. *American Journal of Mental Deficiency* **89**, **45**1–8.
- Cole P. M., Michel M. K. & Teti L. O. (1994) The development of emotion regulation and dysregulation: a clinical perspective. *Monographs of the Society for Research in Child Development* 59, 250–83.
- Cole P. M., Teti L. O. & Zahn-Waxler C. (2003) Mutual emotion regulation and the stability of conduct problems between preschool and early school age. *Development and Psychopathology* **15**, 1–18.
- Crick N. R. & Dodge K. A. (1994) A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin* **115**, 74–101.

- Davis H., Stroud A. & Green L. (1988) The maternal language environment of children with language delay. *British Journal of Disorders of Communication* 22, 253–66.
- Denham S. A. & Auerbach S. (1995) Mother-child dialogue about emotions and preschoolers' emotional competence. *Genetic, Social, and General Psychology Monographs* 121, 311–37.
- Denham S. A. & Kochanoff A. (2002) Why is she crying? Children's understanding of emotion from preschool to preadolescence. In: *The Wisdom in Feeling: Psychological Processes in Emotional Intelligence* (eds L. Barrett & P. Salovey), pp. 239–70. The Guilford Press, New York.
- Dix T. (1991) The affective organization of parenting: adaptive and maladaptative processes. *Psychological Bulletin* **110**, 3–25.
- Dunn J. & Brown J. B. (1991) Family talk about feeling states and children's later understanding of others' emotions. *Developmental Psychology* 27, 448–55.
- Dunn J., Bretherton I. & Munn P. (1987) Conversations about feeling states between mothers and their young children. *Developmental Psychology* **23**, 132–9.
- Eisenberg N., Cumberland A. & Spinrad T. L. (1998) Parental socialization of emotion. *Psychological Inquiry* **9**, 241–73.
- Emerson E. (2003) Prevalence of psychiatric disorders in children and adolescents with and without intellectual disability. *Journal of Intellectual disability Research* **47**, 51–8.
- Enders C. K. & Bandalos D. L. (2001) The relative performance of full information maximum likelihood estimation for missing data in structural equation models. *Structural Equation Modeling* **8**, 430–57.
- Fenning R. M. & Baker J. K. (2008, March) Family factors in the emergence of social cognition in children with and without developmental delays. In: *Parenting Processes Observed in Multiple Contexts* (ed. J. Blacher, Chair). Symposium presented at the 41st Annual Gatlinburg Conference, San Diego, CA.
- Fenning R. M., Baker J. K., Baker B. L. & Crnic K. A. (2007) Parenting children with borderline intellectual functioning: a unique risk population. *American Journal* on Mental Retardation **112**, 107–21.
- Fivush R., Brotman M. A., Buckner J. P. & Goodman S. H. (2000) Gender differences in parent–child emotion narratives. Sex Roles 42, 233–53.
- Floyd F. J. & Saitzyk A. R. (1992) Social class and parenting children with mild and moderate mental retardation. *Journal of Pediatric Psychology* **17**, 607–31.
- Ganiban J., Barnett D. & Cicchetti D. (2000) Negative reactivity and attachment: Down syndrome's contribution to the attachment-temperament debate. *Development and Psychopathology* **12**, I–21.
- © 2009 The Authors. Journal Compilation © 2009 Blackwell Publishing Ltd

- Greenspan S. (1979) Social intelligence in the retarded. In: *Handbook of Mental Deficiency, Psychological Theory and Research* (ed. N. R. Ellis), pp. 483–531. Lawrence Erlbaum Associates, Hillsdale, NJ.
- Gresham F. M. & Elliott S. N. (1990) Social Skills Rating System Manual. American Guidance Service, Circle Pines, MN.
- Gresham F. M., Sugai G. & Horner R. H. (2001) Interpreting outcomes of social skills training for students with high-incidence disabilities. *Exceptional Children* **67**, 33I-44.
- Guralnick M., Paul-Brown D., Groom J., Booth C. L., Hammond M. A., Tupper D. B. *et al.* (1998) Conflict resolution patterns of preschool children with and without developmental delays in heterogeneous playgroups. *Early Education and Development* 9, 49–77.
- Guralnick M. J. & Groom J. M. (1987) The peer relations of mildly delayed and nonhandicapped preschool children in mainstreamed playgroups. *Child Development* 58, 1556–72.
- Guralnick M. J. & Groom J. M. (1988) Friendships of preschool children in mainstream playgroups. *Developmental Psychology* 24, 595–604.
- Guralnick M. J., Connor R. T., Neville B. & Hammond M. A. (2006) Promoting the peer-related social development of young children with mild developmental delays: effectiveness of a comprehensive intervention. *American Journal on Mental Retardation* **111**, 336–56.
- Guralnick M. J., Neville B., Hammond M. A. & Connor R. T. (2008) Mothers' social communicative adjustments to young children with mild developmental delays. *American Journal on Mental Retardation* 113, 1–18.
- Howse R. B., Calkins S. D., Anastopoulos A. D., Keane S. P. & Shelton T. L. (2003) Regulatory contributors to children's kindergarten achievement. *Early Education and Development* **14**, 101–19.
- Kasari C. & Bauminger N. (1998) Social and emotional development in children with mental retardation. In: *Handbook of Mental Retardation and Development* (eds J. Burack, R. Hodapp & E. Zigler), pp. 411–33. Cambridge University Press, New York.
- Kopp C. B., Baker B. L. & Brown K. W. (1992) Social skills and their correlates: preschoolers with developmental delays. *American Journal of Mental Retardation* 96, 357–66.

- Leffert J., Siperstein S. & Millikan E. (2000) Understanding social adaptation in children with mental retardation: A social-cognitive perspective. *Exceptional Children* 66, 530–45.
- Lemerise E. A. & Arsenio W. F. (2000) An integrated model of emotion processes and cognition in social information processing. *Child Development* **71**, 107–18.
- Marfo K. (1990) Maternal directiveness in interactions with mentally handicapped children: an analytical commentary. *Journal of Child Psychology and Psychiatry* **31**, 531–49.
- Maslow A. H. (1943) A theory of human motivation. *Psychological Review* **50**, 370–96.
- Morris A. S., Silk J. S., Steinberg L., Myers S. S. & Robinson L. R. (2007) The role of the family context in the development of emotion regulation. *Social Development* 16, 361–88.
- Reiss S., Levitan G. W. & Szyszko J. (1982) Emotional disturbance and mental retardation: diagnostic overshadowing. American Journal of Mental Deficiency 86, 567–74.
- Rubin K. H., Coplan R. J., Fox N. A. & Calkins S. D. (1995) Emotionality, emotion regulation, and preschoolers' social adaptation. *Development and Psychopathology* 7, 49–62.
- Rydell A. M., Berlin L. & Bohlin G. (2003) Emotionality, emotion regulation, and adaptation among 5- to 8-year old children. *Emotion* **3**, 30–47.
- Saarni C., Mumme D. L. & Campos J. J. (1998) Emotional development: action, communication, and understanding. In: *Handbook of Child Psychology: Social, Emotional, and Personality Development* (eds W. Damon, Series & N. Eisenberg), pp. 237–309. Wiley, New York.
- Tingley E. C., Gleason J. B. & Hooshyar N. (1994) Mothers' lexicon of internal state words in speech to children with Down syndrome and to nonhandicapped children at mealtime. *Journal of Communication Disorders* 27, 135–55.
- Wilson B. J., Fernandes-Richards S., Aarskog C., Osborn T. & Capetillo D. (2007) The role of emotion regulation in the social problems of boys with developmental delays. *Early Education and Development* **18**, 201–22.

Accepted 22 January 2009