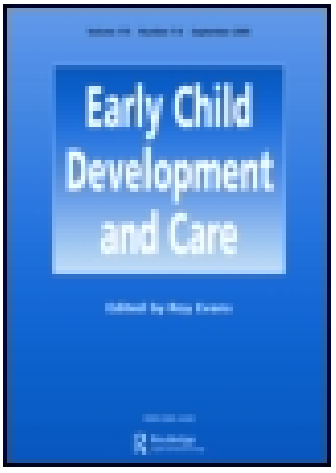
This article was downloaded by: [Griffith University]
On: 30 June 2015, At: 00:29
Publisher: Routledge
Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



CrossMark
Click for updates

Early Child Development and Care
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/gecd20

A new measure of toddler parenting practices and associations with attachment and mothers' sensitivity, competence, and enjoyment of parenting

Melanie J. Zimmer-Gembeck[a], Haley J. Webb[a], Rae Thomas[b] & Stefanie Klag[c]

[a] School of Applied Psychology and Griffith Health Institute, Behavioural Basis of Health, Griffith University, Gold Coast, Australia

[b] Faculty of Health Sciences and Medicine, Centre for Research in Evidence-Based Practice, Bond University, Gold Coast, Australia

[c] Evolve Interagency Services, Gold Coast, Australia

Published online: 22 Jan 2015.

To cite this article: Melanie J. Zimmer-Gembeck, Haley J. Webb, Rae Thomas & Stefanie Klag (2015): A new measure of toddler parenting practices and associations with attachment and mothers' sensitivity, competence, and enjoyment of parenting, Early Child Development and Care, DOI: 10.1080/03004430.2014.1001753

To link to this article: http://dx.doi.org/10.1080/03004430.2014.1001753

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at http://www.tandfonline.com/page/terms-and-conditions

Downloaded by [Griffith University] at 00:29 30 June 2015

Early Child Development and Care, 2015
http://dx.doi.org/10.1080/03004430.2014.1001753

Routledge
Taylor & Francis Group

A new measure of toddler parenting practices and associations with attachment and mothers' sensitivity, competence, and enjoyment of parenting

Melanie J. Zimmer-Gembeck[a]*, Haley J. Webb[a], Rae Thomas[b] and Stefanie Klag[c]

[a]*School of Applied Psychology and Griffith Health Institute, Behavioural Basis of Health, Griffith University, Gold Coast, Australia;* [b]*Faculty of Health Sciences and Medicine, Centre for Research in Evidence-Based Practice, Bond University, Gold Coast, Australia;* [c]*Evolve Interagency Services, Gold Coast, Australia*

(*Received 5 November 2014; accepted 19 December 2014*)

Self-determination theorists argue that parents can support or thwart their children's psychological needs for relatedness, autonomy, and competence. The first aim of this study was to develop a measure to assess six dimensions of parenting theoretically linked to meeting toddlers' needs. The second aim was to examine the associations of these dimensions with mothers' sensitivity, attachment, and parenting attitudes. Participants were 61 mothers who expressed having parenting difficulties. Mothers completed questionnaires to assess their warmth, autonomy support, structure, rejection, coercion, and chaos, and self-reported their parenting competence and enjoyment. Mother–toddler interactions were observed to assess mothers' sensitivity, and attachment was assessed with the Strange Situation. Mothers who reported less coercion were more sensitive. Most parenting practices were associated with parents' perceptions of competence and enjoyment of parenting in the expected directions. Self-reported parenting was not associated with attachment, but greater sensitivity was observed among secure compared to insecure mother–toddler pairs.

Keywords: self-determination theory; emotional sensitivity; parenting practices; parenting attitudes

Downloaded by [Griffith University] at 00:29 30 June 2015

Fulfilment of children's psychological needs to feel connected, competent, and autonomous plays a defining role in their well-being and future development (Grolnick et al., 2014; Joussemet, Landry, & Koestner, 2008; Skinner, Johnson, & Snyder, 2005; Zimmer-Gembeck & Collins, 2003). Although social relationships are important contexts serving to assist or prevent the fulfilment of humans' psychological needs across the entire lifespan, parents are the primary context providing such opportunities for very young children via their specific caregiving practices and behaviours. Although the individual behaviours of parents that promote or undermine young children's needs are numerous and diverse, three positive core features of warmth, structure, and autonomy support, and three negative features of rejection, chaos, and coercion have been useful for organising parenting practices (Skinner et al., 2005). Parental warmth is expressed by affection and caring, whereas rejection is expressed through hostility or

*Corresponding author. Email: m.zimmer-gembeck@griffith.edu.au

© 2015 Taylor & Francis

criticism. Structure is predictability, consistency, and providing limits, whereas chaos is inconsistent, erratic, or arbitrary parenting behaviours. Autonomy support provides messages that encourage and value agency and individual expression, whereas coercion involves over-controlling practices and demanding of obedience.

Self-determination theory (SDT; Ryan & Deci, 2000) is the most directly relevant theory supporting the notion of these six dimensions of parenting as important for children's need satisfaction, development, and well-being. In SDT, these six social-contextual conditions are described as those that support versus subvert three psychological needs of relatedness, competence, and autonomy (Deci & Ryan, 2008; Ryan & Deci, 2000). Empirically, the enhanced outcomes associated with social settings and relationships that support relatedness, competence, and autonomy have been demonstrated across decades of research. These include improved learning and educational performance, psychotherapy outcomes, relationship functioning, weight loss, and physical health outcomes (Ng et al., 2012; Niemiec & Ryan, 2009; Patrick, Knee, Canevello, & Lonsbary, 2007; Ryan & Deci, 2008; Silva et al., 2010).

More closely related to the current study, the six parenting dimensions have been previously examined in relation to social and emotional adjustment of children and adolescents. Parental warmth and affection have been described as the most basic and critical parenting quality (Skinner et al., 2005), with higher levels of warmth being prospectively associated with children's lower levels of behavioural problems and higher levels of social functioning (Waller et al., 2014; Zhou et al., 2002). On the other hand, parental rejection has been shown to predict children's elevated symptoms of anxiety, depression, and aggression, as well as concerns about social rejection in children and adolescents (Roelofs, Meesters, ter Huurne, Bamelis, & Muris, 2006; Rowe, Zimmer-Gembeck, Rudolph, & Nesdale, 2015).

Parenting practices that support child or adolescent autonomy have received substantial research attention, with results consistently showing that autonomy-supportive parenting is predictive of enhanced psychosocial outcomes in children and adolescents, including attachment security, life satisfaction, and depression (Ferguson, Kasser, & Jahng, 2011; Soenens, Park, Vansteenkiste, & Mouratidis, 2012; Whipple, Bernier, & Mageau, 2011; see Zimmer-Gembeck, Ducat, & Collins, 2011 for a review). In contrast, autonomy-restrictive (i.e. coercive) parenting has been linked with increasing psychopathology over time, including social anxiety and depressive symptoms (Rowe et al., 2015). Finally, the provision of structure is a parenting quality with a long history of research attention. Benefits have been observed in children's reduced internalising and externalising symptoms, and increased academic competence in association with consistent limit-setting and high parental expectations (Mattanah, 2001; Simons-Morton, Haynie, Crump, Eitel, & Saylor, 2001). Inconsistent and ineffective (i.e. chaotic) parenting has been linked with psychopathology and conduct problems in children (Dwairy, 2010).

Measurement of the six parenting dimensions

In order to examine these six dimensions of parenting, Skinner et al. (2005) developed the Parent as Social Context Questionnaire (PSCQ) for adolescents. Using this measure parental warmth, autonomy support, and structure were associated with self and teacher reports of lower child maladjustment and higher school engagement (McBride, 2008; Skinner, Kindermann, & Furrer, 2009), whereas parental rejection, coercion, and chaos were associated with greater maladjustment (McBride, 2008). Notably, no study could be located that has assessed the six general parenting dimensions in parents of toddlers.

Downloaded by [Griffith University] at 00:29 30 June 2015

There is evidence that these dimensions are relevant for young children, however. In particular, the PSCQ measure was modified to examine parenting dimensions in relation to young children's (age 4–7 years) eating behaviour, and results showed that parents' coercion and chaos exacerbated children's disinhibited eating (Joyce & Zimmer-Gembeck, 2009). Accordingly, the first aim of the present study was to modify the PSCQ to be suitable as a measure of the six parenting dimensions with reference to toddlers. The second aim was to assess whether the six toddler parenting dimensions were associated with observed parenting (mothers' emotional sensitivity), parent–child attachment, parents' sense of their parenting competence, and their enjoyment of parenting.

Caregivers' sensitivity and attachment, and parents' competence and enjoyment

Caregivers' sensitivity. Sensitivity – caregivers' ability to detect, interpret, and effectively respond to their child's cues – is typically assessed through the observation of parent–child interactions (see Biringen, Robinson, & Emde, 2000; De Wolff & van Ijzendoorn, 1997; Thomas & Zimmer-Gembeck, 2011). Caregivers' sensitivity is considered to be a key predictor of a range of psychosocial outcomes in children, including parent–child attachment security (De Wolff & van Ijzendoorn, 1997; Eshel, Daelmans, de Mello, & Martines, 2006). Notably, lower sensitivity has been associated with higher levels of harsh parenting practices, concurrently and over time (Joosen, Mesman, Bakermans-Kranenburg, & van IJzendoorn, 2012). Similarly, we anticipated that parents who demonstrate greater sensitivity to their toddlers' needs would report more positive and fewer negative parenting practices.

Caregiver–child attachment. During early childhood, key developmental tasks involve establishing trust in the world and developing an understanding of autonomy (Erikson, 1959). During the first two years of life, an expectation of truthfulness of others and sense of oneself as valuable originates within the parent–child relationship, and depends on the caregiver meeting the child's basic needs for comfort and sustenance (Bowlby, 1988; Erikson, 1959). Between ages two and four years, toddlers develop the cognitive and motor abilities to begin exploration of the world. A caregiver's ability to support that exploration, encourage attempts to face new challenges, and support the development of individual interests is theorised to promote the toddler's sense of autonomy. Such a pattern of interactions between caregivers and their toddlers has been captured through the assessment of their attachment relationships. Thus, attachment security has been described as providing the child with a safe haven from which to venture, and return to, for comfort (Bowlby, 1988), whereas appropriate parental limits provide safe boundaries around exploration. Such notions highlight the importance of parental practices that are warm, but especially those that provide support for autonomy, in order to satisfy the salient needs of toddlers and establish a secure attachment relationship. Thus, in the present study we anticipated that warmth and autonomy support would be associated with attachment security, whereas parental rejection and coercion would be elevated among children classified as insecure.

Parents' sense of parenting competence and enjoyment of parenting. Caregivers' beliefs about their efficacy or competence as a parent have been identified as an important correlate of parental enjoyment of their caregiving role and the quality of the family context (Coleman & Karraker, 1998). Theory suggests that caregivers with a higher sense of parenting competence will show confidence and proficiency in their parenting behaviours, whereas caregivers with a lower sense of competence may struggle to respond effectively

Downloaded by [Griffith University] at 00:29 30 June 2015

in challenging caregiving situations (Jones & Prinz, 2005). Accordingly, research shows that parenting self-efficacy does accompany positive parenting, including warmth, involvement, responsiveness, limit-setting, non-punitive caregiving, and efforts to enhance parenting skills through attending formal parenting programmes and self-education (for reviews, see Coleman & Karraker, 1998; Jones & Prinz, 2005). In line with these findings, we hypothesised that caregivers reporting a higher sense of parenting competence would also report more positive, and less negative, toddler parenting practices.

Although not widely studied, enjoyment or personal meaning within the parenting role has also been linked with parenting beliefs and behaviours, including lower intolerance and negative feelings towards the child, and greater prioritising of the child's needs (Ashton-James, Kushlev, & Dunn, 2013; Lerner & Galambos, 1985). It is theorised that satisfaction within the mother role is related to more adaptive parenting practices through enhanced mood, fulfilment, and self-efficacy accompanied by role satisfaction (Lerner & Galambos, 1985). Accordingly, we predicted that caregivers reporting greater pleasure in interactions with their toddlers would also endorse more positive, and less negative, parenting practices.

Downloaded by [Griffith University] at 00:29 30 June 2015

The current study

To address our aims of (1) assessing six dimensions of parenting in a new measure for parents with toddlers and (2) examining the association of these dimensions with observations and self-report methods, we used multiple methods of assessment. Caregivers' sensitivity and attachment security were assessed via observation of mother–toddler interactions, and female caregivers also completed a self-report questionnaire. We anticipated that the six parenting practice dimensions would be moderately correlated with each other. We also anticipated that the positive parenting dimensions of warmth, autonomy support, and structure would each be uniquely associated with parents' greater feelings of competence and enjoyment of parenting, and elevated sensitivity. Conversely, we anticipated that the three negative parenting dimensions of rejection, coercion, and chaos would be uniquely associated with parents' lower levels of competence and enjoyment, as well as less sensitivity.

Moreover, given previous research that has associated warmth and autonomy support, in particular, with attachment and sensitivity (Whipple et al., 2011), we expected that these parenting dimensions would be associated with observed attachment status and caregivers' sensitivity. We expected that mothers of secure toddlers would report more warmth and autonomy support and display greater sensitivity compared with insecure toddlers. Moreover, given that rejection and coercion are parenting strategies that undermine children's needs for relatedness and autonomy (Skinner et al., 2005), we also expected rejecting and coercive parenting to be lower in toddlers classified as securely attached compared with other toddlers, and that mothers who were observed to be more sensitive would report lower levels of rejecting and coercive parenting practices.

Method

Participants

Participants were 61 female caregivers (M_{age} = 30 years, SD = 6.5 years, range: 19–44 years) and their children (37 boys, 24 girls; M_{age} = 21.4 months, SD = 5.2 months,

range: 12–35 months). Overall, 66 mothers entered the study, but the observational equipment failed for 5 participants. Of the 61 participants, most caregivers were biological mothers (95%). The remaining 5% were female foster carers or female relatives. For simplicity, we refer to the caregivers as mothers. The majority of mothers had completed some high school (79%), and 20% reported some tertiary education. Two mothers (3%) identified as being Australian Aboriginal or Pacific Islander.

Fifty-seven per cent of the participants were referred from family and child health and welfare agencies (43% from child protection authorities, 12% from government health services, and 2% from community social service organisations) for this study and a parenting intervention programme. The remaining 43% of participants were self-referred. Only mothers' sensitivity differed between agency and self-referred participants. Mothers who were self-referred were observed to be more sensitive ($M = 5.71$, SD = .94) when compared with mothers referred from child welfare and other agencies ($M = 5.13$, SD = .93). Only data collected prior to the parenting programme were used in the present study.

Downloaded by [Griffith University] at 00:29 30 June 2015

Measures

Parenting dimensions. The PSCQ (Skinner et al., 2005), originally developed for parents of older children and adolescents, was shortened and modified to be appropriate for parents of toddlers (PSCQ-Toddlers (PSCQ-T), see Appendix 1). The original PSCQ measured six dimensions of parenting with five items each, including three positive dimensions of warmth, autonomy support, and structure, and three negative dimensions of rejection, coercion, and chaos. For the current study, the items were modified to be age appropriate and reduced from 5 to 4 items per subscale. As in the original PSCQ, response options ranged from 1 (*not true at all*) to 4 (*very true*). Sample items include the following: 'I can always find time for my child' (warmth) and 'I find myself getting into power struggles with my child' (coercion). Cronbach's α was .71 for warmth, .71 for structure, .70 for autonomy support, .62 for rejection, .63 for chaos, and .60 for coercion. Appropriate items were averaged to form a composite for each parenting dimension.

Mothers' observed sensitivity. We used the sensitivity subscale of the Emotional Availability scales to assess mothers' observed sensitivity (Biringen, 2008). This measure considered the mother's affect, ability to respond to the child's signals, flexibility, and accessibility to the child. Mothers were rated from 1 (*highly insensitive*) to 9 (*highly sensitive*). Two independent coders who were blind to other measures rated the middle 10-minute segment of a 20-minute video-recorded parent–toddler free play session. This middle 10-minute section was chosen as it provides a 5-minute settle-in period at the beginning and does not utilise the final 5 minutes when some toddlers appeared to tire. Because the difference between raters was never more than two points, the final sensitivity score for each interaction was calculated as the mean of the two ratings. Coders kept the young age of the children in mind when assigning scores.

Attachment security. The Strange Situation Procedure (Ainsworth, Blehar, Waters, & Wall, 1978) was conducted with mothers and toddlers to assess attachment organisation. Two independent raters coded all video-recorded Strange Situation sessions and were blind to other measures. The coders were trained and obtained reliability in Ainsworth's A, B, C coding system prior to this study. Classifications were assigned according to secure, insecure avoidant, and insecure anxious-resistant groups (Ainsworth

et al., 1978). Agreement on the attachment classifications for the present sample was 87%.

Parenting sense of competence. The 17-item Parenting Sense of Competence scale (Johnston & Mash, 1989) was used to measure self-esteem pertaining to parenting. Response options ranged from 1 (*strongly disagree*) to 6 (*strongly agree*). An example item is 'I honestly believe that I have all of the skills necessary to be a good mother/father to my child'. A composite score was calculated by averaging all items with a high score reflecting greater perceived competence, Cronbach's $\alpha = .87$.

Enjoyment of parenting. The 10-item Parent Perceptions of the Child scale (Fagot & Kavanagh, 1993) was used to assess the extent to which parents view interactions with their children as pleasurable or not pleasurable. Response options ranged from 1 (*dislike*) to 5 (*very much enjoy*). Sample items include 'Putting the child to bed' and 'Talking to the child'. Items were averaged to form a composite score, with higher scores reflecting more positive perceptions, Cronbach's $\alpha = .84$.

Downloaded by [Griffith University] at 00:29 30 June 2015

Procedure

Ethical clearance was obtained prior to study recruitment. Parents contacted the university psychology clinic because they were referred to, or interested in, a parenting programme for toddlers. Once contact was made, parents were invited to attend the clinic where they completed two in-clinic parent–toddler observational assessments and a self-report questionnaire. The observational assessments were completed in two sessions prior to the completion of the questionnaire at home or in the second or a third session. The Strange Situation was completed in the first session, and the free play session was videotaped in the second session. Taxi or bus fare, and childcare were provided for other children, if needed. The parenting programme was free and advertised widely through community agencies, schools, parenting magazines, and Internet forums (e.g. a programme website and Facebook).

Results

Intercorrelations between measures

First, Pearson's correlations between all continuous measures were estimated. These correlations, as well as variable means and SDs, are presented in Table 1. Mothers reporting less coercion and more sense of competence were observed to be more sensitive. Also, mothers' sense of competence was associated with all parenting practices in the expected directions, and mothers who reported being warmer, more autonomy supportive, less rejecting, less chaotic, and less coercive felt more enjoyment of parenting.

Because parenting warmth, autonomy support, and structure were moderately associated, as were rejection, coercion, and chaos, we formed two composites by averaging the positive and averaging the negative subscales (Cronbach's α for positive parenting items was .84, and for negative parenting items it was .80). Negative parenting was negatively associated with mothers' sensitivity, and both negative and positive parenting were associated with mothers' reports of competence and enjoyment of parenting in the expected directions (see Table 1).

Downloaded by [Griffith University] at 00:29 30 June 2015

Table 1. Means, SDs, and Pearson's correlations between emotional sensitivity and other aspects of parenting ($N = 61$).

	1	2	3	4	5	6	7	8	9	10	11
1. Emotional sensitivity	–										
2. Parental warmth	.16	–									
3. Parental structure	−.01	.44**	–								
4. Parental autonomy support	.03	.60**	.41**	–							
5. Parental rejection	−.12	−.31*	−.02	−.13	–						
6. Parental chaos	−.13	−.27*	−.30*	−.18	.51**	–					
7. Parental coercion	−.25*	−.46**	−.14	−.24*	.57**	.48**	–				
8. Total pos parenting	.09	.85**	.78**	.85**	−.26*	−.33**	−.41**	–			
9. Total neg parenting	−.26*	−.45**	−.24	−.33**	.84**	.76**	.86**	−.75**	–		
10. Parent sense of comp	.26*	.55**	.39**	.41**	−.65**	−.53**	−.65**	.58**	−.75**	–	
11. Parenting enjoyment	.12	.34**	.10	.28*	−.64**	−.43**	−.50**	.36**	−.67**	.66**	–
Mean	5.34	2.93	2.80	3.43	1.58	1.58	1.66	3.13	1.62	4.26	3.95
SD	0.98	0.66	0.61	0.51	0.52	0.51	0.58	0.43	0.41	0.80	0.60

Note: Pos – positive, a composite of warmth, structure, and autonomy support. Neg – negative, a composite of rejection, chaos, and coercion. Comp – competence.
*$p < .05$.
**$p < .01$.

Table 2. Results of regressing emotional sensitivity, parents' sense of competence, and parenting enjoyment on positive and negative parenting behaviours.

	Sensitivity B (SE B), β	Competence B (SE B), β	Enjoyment B (SE B), β
Total positive parenting	−.10 (.33), −.04	.62 (.15), .33**	.14 (.14), .10
Total negative parenting	−.73 (.37), −.28*	−1.20 (.16), −.61**	−.93 (.15), −.63**

Notes: Positive parenting was a composite of warmth, structure, and autonomy support. Negative parenting was a composite of rejection, coercion, and chaos. Sensitivity $F(2, 58) = 2.23$, $p = .12$, $R^2 = .07$. Competence $F(2, 58) = 57.9$, $p < .01$, $R^2 = .65$. Enjoyment $F(2, 58) = 26.0$, $p < .01$, $R^2 = .45$.
*$p < .05$.
**$p < .01$.

Downloaded by [Griffith University] at 00:29 30 June 2015

To determine the unique associations of positive and negative parenting practices with sensitivity, mothers' perceived competence, and enjoyment, we regressed each of these measures on the two composite measures of parenting practices (see Table 2). As can be seen, negative parenting, but not positive parenting, was associated with less observed sensitivity and less enjoyment of parenting. Yet, both positive and negative parenting practices were associated with mothers' perceptions of their parenting competence, with positive parenting associated with mothers' reports of more competence and negative parenting associated with less competence.

Comparison of three attachment groups

One-way analysis of variances were conducted to assess differences between the three attachment groups (37 secure – 61%, 8 avoidant – 13%, and 16 anxious – 26%; see Table 3). There were no group differences in parenting practices, mothers' enjoyment of parenting, or sense of competence. Yet, mothers' sensitivity did differ between attachment groups, $F(2,58) = 3.20$, $p < .05$. Follow-up analyses revealed that the

Table 3. Comparison of three attachment groups ($n = 61$).

	Secure ($n = 37$) *M* (SD)	Avoidant ($n = 8$) *M* (SD)	Anxious ($n = 16$) *M* (SD)	*F* (2,58)
Emotional sensitivity	5.58 (0.89)	5.44 (1.05)	4.88 (1.00)	3.20*
Parental warmth	2.75 (0.54)	2.69 (0.87)	2.86 (0.70)	2.26
Parental structure	2.75 (0.54)	2.69 (0.87)	2.86 (0.70)	0.25
Parental autonomy support	3.42 (0.58)	3.47 (0.43)	3.41 (0.47)	0.04
Parental rejection	1.53 (0.49)	1.69 (0.40)	1.64 (0.54)	0.34
Parental chaos	1.59 (0.49)	1.69 (0.40)	1.45 (0.38)	0.82
Parental coercion	1.69 (0.62)	1.69 (0.64)	1.53 (0.42)	0.45
Total positive parenting	3.11 (0.39)	2.98 (0.41)	3.20 (0.39)	0.63
Total negative parenting	1.59 (0.41)	1.68 (0.34)	1.60 (0.35)	0.19
Parent's sense of competence	4.25 (0.93)	4.19 (0.48)	4.29 (0.68)	0.05
Parenting enjoyment	3.95 (0.62)	4.14 (0.50)	3.84 (0.61)	0.65

*$p < .05$.

secure group ($M = 5.58$, SD = 0.89) was rated higher on sensitivity than the anxious group ($M = 4.88$, SD = 1.00; $p < .05$). Sensitivity did not differ between the secure and avoidant groups or between the avoidant and anxious groups.

Discussion

We examined parenting practices, founded in SDT (Ryan & Deci, 2000; Skinner et al., 2005), and assessed these with a new self-report questionnaire specifically developed for parents of toddlers. We tested associations of these practices with observations of mothers' sensitivity, mother–child attachment, and mothers' self-reported parenting competence and enjoyment of parenting. Drawing from SDT, the new parenting practices measure included six dimensions of warmth, autonomy support, structure, rejection, coercion, and chaos. These are the parenting practices theorised to best meet children's needs for relatedness, autonomy, and competence (Skinner et al., 2005). Our measure of parenting practices was modified for use with parents of toddlers from the PSCQ (Skinner et al., 2005) developed for adolescents. The PSCQ-T showed solid inter-item correlations and the subscales were intercorrelated, as would be anticipated.

We expected that all practices assessed with the PSCQ-T would be associated with mothers' observed sensitivity, competence, and enjoyment of parenting. We also expected maternal warmth, autonomy support, rejection, and coercion would differ between secure, avoidant, and anxious attachment groups. We found support for many of these expected associations, with the exception of our hypothesis about attachment. In addition, associations were much stronger between self-report measures than between self-report and observations of parenting.

All subscales of the PSCQ-T were associated with both competence perceptions and maternal enjoyment of parenting, with only one exception (the association between structure and enjoyment of parenting). Yet, when positive practices and negative practices were examined in multivariate analyses of the correlates of competence and enjoyment, negative parenting practice stood out as particularly relevant for its associations with both lower mothers' perceptions of their competence and lower enjoyment of parenting. Positive parenting did remain a unique correlate of parents' perception of the competence, however. As such, these findings suggest that self-reported parenting practices are behavioural displays of parents' feelings about their own competence and whether or not they enjoy the parenting role.

Second, only coercion (or a composite of negative parenting that included rejection, coercion, and chaos) and mothers' sense of competence were associated with mothers' sensitivity. Mothers who reported fewer coercive parenting practices with their toddlers and who felt more competent as a parent were observed to be more emotionally sensitive. In multivariate analyses when composites of positive and negative parenting were examined and simultaneously considered, mothers who reported they were more negative (more rejecting, coercive, and chaotic) were observed to be less sensitive. Positive parenting did not have a unique association with sensitivity in this model.

Few previous studies have examined associations of sensitivity with both self-reported (or observed) negative and positive parenting practices. Yet, two recent studies (Bradley & Corwyn, 2007; Joosen et al., 2012) have found that negative parenting behaviours are relevant to understanding parents' insensitivity when interacting with their children. In these studies, caregivers rated as less sensitive to their children's needs were found to demonstrate higher levels of harsh parenting concurrently, and 1–2

Downloaded by [Griffith University] at 00:29 30 June 2015

years later. Joosen et al. (2012) theorised that insensitivity to child cues could result in the use of harsh discipline strategies through a lack of respect and empathy for children's needs, or misinterpretation of children's motivations. Our findings are consistent with this view. Coercion contains items that best reflect a lack of consideration of children's needs and potential use of harsh discipline or, at least, authoritarian parenting. Thus, parents' lack of perspective-taking may partly underlie both maternal insensitivity and negative parenting practices, but negative parenting also reflects actions that are more overtly hostile, coercive, and rejecting. This means that insensitivity and negative parenting practices are related, but not completely overlapping, aspects of parenting.

We did not find associations between observations of mothers' sensitivity and self-reported warmth or positive parenting practices. A few studies have examined positive parenting practices and sensitivity, and the findings suggest that associations are more likely found when both sensitivity and positive parenting behaviours are observed. In one study, for example, observed maternal warmth was associated with observed sensitivity in mother–child interactions (Spinrad et al., 2012). In summary, it does appear that negative parenting practices may be a stronger correlate of observed sensitivity than positive parenting practices, that negative parenting practices linked to less parental perspective-taking and hostile reactions may be most relevant to sensitivity, and that the way parenting practices are measured (i.e. via self-report or observation) could account for the strength of associations.

Third, consistent with the seven previous studies conducted with similar families in the USA and Canada (Bergin & McCollough, 2009; Candelaria, Teti, & Black, 2011; Diener, Nievar, & Wright, 2003; Espinosa, Beckwith, Howard, Tyler, & Swanson, 2001; Moran, Forbes, Evans, Tarabulsy, & Madigan, 2008; Niccols, 2008; Susman-Stillman, Kalkose, Egeland, & Waldman, 1996), it was the case that the securely attached group of mothers and toddlers was rated as more emotionally sensitive than the insecure group. This difference in sensitivity was particularly clear between the secure and the anxious attachment groups. However, unexpectedly, mother-reported parenting practices, parenting competence, and enjoyment of parenting did not differ between attachment groups. Therefore, despite some association of mothers' self-reported parenting practices with observed sensitivity, only sensitivity was associated with attachment classification. When the three attachment groups were compared, the difference was between the anxious and secure attachment groups, with mothers in the anxious group observed to be less sensitive than their securely classified counterparts. The avoidant group did not differ from either the secure or the anxious group. These results are consistent with classic attachment theory and the literature demonstrating the consistent association between the sensitivity of maternal behaviours and caregiver–child attachment security (Ainsworth et al., 1978; De Wolff & van Ijzendoorn, 1997). However, it was surprising that sensitivity did not differ between the secure and avoidant attachment groups. One explanation may be the rather small number of mother–toddler pairs who were classified as avoidant in this study.

Our hypothesis that more positive and fewer negative parenting practices, especially more warmth and autonomy support and less rejection and coercion, would be found in the secure attachment group compared with other groups was not supported. However, we did find associations of mothers' observed sensitivity with lower self-reported coercive parenting practices. Together with the findings of Diener et al. (2003), who found no significant association between attachment security and parenting self-efficacy, these results might indicate that, while mothers' sensitivity is linked with self-reported parenting practices in at-risk mothers, the assessment of specific behaviours often

Downloaded by [Griffith University] at 00:29 30 June 2015

cannot account for significant variability in attachment security. Alternatively, the lack of associations between attachment security and parenting practices and beliefs might be explained by our assessment methods. The association between mothers' sensitivity and attachment security may reflect a bias due to shared method variance, whereas mother-reported beliefs about parenting and attachment security are based on different assessment methods. Still another possibility is that mothers entering a treatment programme may have reasons not to self-report their parenting difficulties or may not be as accurate about their behaviours as other mothers, but the significant associations between observed sensitivity and parent reports of warmth and coercion do not support this explanation. Also, because the PSCQ-T has not been used in previous research, future research is needed to replicate the current findings, and it should be noted that the absence of associations with attachment security might be owing to our use of this modified measure.

In addition to the measurement limitations mentioned, one other limitation was that the inter-item correlations for the six subscales of the PSCQ-T were somewhat lower than ideal, although the inter-item correlations for all positive and all negative parenting were quite acceptable at .84 and .80, respectively. Thus, it is the case that future research should extend upon the present study to refine the PSCQ-T, especially recruiting a larger sample. The sample size was limited here, given the inclusion of two time-intensive observational tasks to assess sensitivity and attachment. As such, the sample size was relatively small and could have been underpowered to detect some associations. In fact, two associations, between attachment and warmth, and between sensitivity and rejection, could be called moderate in magnitude and meaningful, with a lower level of warmth among mothers in the avoidant category and greater sensitivity associated with lower rejection. Yet, neither of these differences was significant using the typical criterion of $p < .05$.

Downloaded by [Griffith University] at 00:29 30 June 2015

Conclusion

The findings of this study show that self-reported negative parenting practices (particularly coercive parenting) were associated with less observed sensitivity among mothers of toddlers. Moreover, multiple subscales of the positive and negative parenting practices assessed with this new parenting practices measure, the PSCQ-T, were moderately associated with more widely used measures of parents' sense of competence and enjoyment of parenting. Yet, only observed sensitivity, not self-reported parenting practices, was associated with observed parent–child attachment. Overall, the PSCQ-T has utility for assessing multiple theoretically derived parenting practices that may be relevant for understanding children's development and well-being in later life. The findings also confirm previous US and Canadian research, which has shown that mothers' heightened sensitivity is associated with secure attachment. Additional research should be conducted to assess the reliability and validity of the PSCQ-T in a larger sample of parents of toddlers, and to examine its relevance for understanding children's concurrent and later functioning.

Acknowledgements

We extend special thanks to Elbina Avdagic and Leanne McGregor for their work on the intervention programme associated with this project. We also are indebted to Shawna Mastro for her expert data management, and for the assistance of Codi White and Julie McLachlan in data

collection and entry, and Judith Warner, Brooke Mitchell, Samantha Ferguson, and Codi White in coding observations of parents and children. The Australian Rotary Association – Mental Health Project Scheme and the Queensland State Government funded this research.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes on contributors

Melanie J. Zimmer-Gembeck is Professor in Applied Psychology and the Griffith Health Institute at Griffith University. She received training in developmental psychology at Portland State University, where she received her Ph.D. in 1998. Her research focuses on relationships and social well-being, coping, emotion regulation, and promotion of health in children and adolescents.

Haley J. Webb is a Research Fellow in the School of Applied Psychology at Griffith University, and a practicing psychologist. She received her Ph.D. in Clinical Psychology at Griffith University in 2013. Her clinical and research work is focused on developmental psychopathology in children and adolescents, and she has a particular interest in parent–child relationships.

Rae Thomas is a Senior Research Fellow at Bond University, Centre for Research in Evidence-based Practice. She received her Ph.D. at Griffith University in 2008. She is a registered Psychologist concentrating her research on developmental pathways of maltreated children and dissemination of evidence-based interventions to community and government organisations.

Stefanie Klag is a Senior Psychologist at Evolve Therapeutic Services, QLD Health. She received her Ph.D. at Griffith University in 2006. Her research interests are in the areas of child maltreatment and abuse, children/adolescents in foster/residential care, and parenting programmes.

Downloaded by [Griffith University] at 00:29 30 June 2015

References

Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Lawrence Erlbaum.

Ashton-James, C. E., Kushlev, K., & Dunn, E. W. (2013). Parents reap what they sow: Child-centrism and parental well-being. *Social Psychological and Personality Science*, *4*, 635–642.

Bergin, C., & McCollough, P. (2009). Attachment in substance-exposed toddlers: The role of caregiving and exposure. *Infant Mental Health Journal*, *30*, 407–423.

Biringen, Z. (2008). *The emotional availability (EA) scales manual* (4th ed.). Boulder, CO: Colorado State University.

Biringen, Z., Robinson, J., & Emde, R. N. (2000). The emotional availability scales (2nd ed.; an abridged infancy/early childhood version). *Attachment & Human Development*, *2*, 251–255.

Bowlby, J. (1988). *A secure base: Parent-child attachment and health human development*. New York: Basic Books.

Bradley, R. H., & Corwyn, R. F. (2007). Infant temperament, parenting, and externalizing behavior in first grade: A test of the differential susceptibility hypothesis. *Journal of Child Psychology and Psychiatry*, *49*, 124–131.

Candelaria, M., Teti, D. M., & Black, M. M. (2011). Multi-risk infants: Predicting attachment security from sociodemographic, psychosocial, and health risk among African-American preterm infants. *Journal of Child Psychology and Psychiatry*, *52*, 870–877.

Coleman, P. K., & Karraker, K. H. (1998). Self-efficacy and parenting quality: Findings and future applications. *Developmental Review*, *18*, 47–85.

De Wolff, M. S., & van Ijzendoorn, M. H. (1997). Sensitivity and attachment: A meta-analysis on parental antecedents on infant attachment. *Child Development*, *68*, 571–591.
Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology*, *49*, 182–185.
Diener, M. L., Nievar, M. A., & Wright, C. (2003). Attachment security among mothers and their young children living in poverty: Associations with maternal, child, and contextual characteristics. *Merrill-Palmer Quarterly*, *49*, 154–182.
Dwairy, M. (2010). Parental inconsistency: A third cross-cultural research on parenting and psychological adjustment of children. *Journal of Child and Family Studies*, *19*, 23–29.
Erikson, E. H. (1959). *Identity and the life cycle*. New York: International Universities Press.
Eshel, N., Daelmans, B., de Mello, M. C., & Martines, J. (2006). Responsive parenting: Interventions and outcomes. *Bulletin of the World Health Organization*, *84*, 992–999. Retrieved from http://www.scielosp.org/pdf/bwho/v84n12/v84n12a16.pdf
Espinosa, M., Beckwith, L., Howard, J., Tyler, R., & Swanson, K. (2001). Maternal psychopathology and attachment in toddlers of heavy cocaine-using mothers. *Infant Mental Health Journal*, *22*, 316–333.
Fagot, B. I., & Kavanagh, K. (1993). Parenting during the second year: Effects of children's age, sex and attachment classification. *Child Development*, *64*, 258–271.
Ferguson, Y. L., Kasser, T., & Jahng, S. (2011). Differences in life satisfaction and school satisfaction among adolescents from three nations: The role of perceived autonomy support. *Journal of Research on Adolescence*, *21*, 649–661.
Johnston, C., & Mash, E. J. (1989). A measure of parenting satisfaction and efficacy. *Journal of Clinical Child Psychology*, *18*, 167–175. doi:10.1207/s15374424jccp1802_8
Grolnick, W. S., Raftery-Helmer, J. N., Marbell, K. N., Flamm, E. S., Cardemil, E. V., & Sanchez, M. (2014). Parental provision of structure: Implementation and correlates in three domains. *Merrill-Palmer Quarterly*, *60*, 355–384.
Jones, T. L., & Prinz, R. J. (2005). Potential roles of parental self-efficacy in parent and child adjustment: A review. *Clinical Psychology Review*, *25*, 341–363.
Joosen, K. J., Mesman, J., Bakermans-Kranenburg, M. J., & van IJzendoorn, M. H. (2012). Maternal sensitivity to infants in various settings predicts harsh discipline in toddlerhood. *Attachment & Human Development*, *14*, 101–117.
Joussemet, M., Landry, R., & Koestner, R. (2008). A self-determination theory perspective on parenting. *Canadian Psychology*, *49*, 194–200.
Joyce, J. L., & Zimmer-Gembeck, M. J. (2009). Parent feeding restriction and child weight. The mediating role of child disinhibited eating and the moderating role of the parenting context. *Appetite*, *52*, 726–734.
Lerner, J. V., & Galambos, N. L. (1985). Maternal role satisfaction, mother-child interaction, and child temperament: A process model. *Developmental Psychology*, *21*, 1157–1164.
Mattanah, J. F. (2001). Parental psychological autonomy and children's academic competence and behavioral adjustment in late childhood: More than just limit-setting and warmth. *Merrill-Palmer Quarterly*, *47*, 355–376.
McBride, M. C. (2008). *Maternal depression and child maladjustment: The role of parental style* (Theses, Dissertations, Professional Papers). Paper 651. Retrieved from http://scholarworks.umt.edu/etd/651/
Moran, G., Forbes, L., Evans, E., Tarabulsy, G. M., & Madigan, S. (2008). Both maternal sensitivity and atypical maternal behavior independently predict attachment security and disorganization in adolescent mother-infant dyads. *Infant Behavior & Development*, *31*, 321–325.
Ng, J., Ntoumanis, N., Thogersen-Ntoumani, E. C., Deci, E. L., Ryan, R. M., Duda, J. L., & Williams, G. C. (2012). Self-determination theory applied to health contexts: A meta-analysis. *Perspectives on Psychological Science*, *7*, 325–340.
Niccols, A. (2008). 'Right from the Start': Randomized trial comparing an attachment group intervention to supportive home visiting. *Journal of Child Psychology and Psychiatry*, *49*, 754–764.
Niemiec, C. P., & Ryan, R. M. (2009). Autonomy, competence, and relatedness in the classroom: Applying self-determination theory to educational practice. *Theory and Research in Education*, *7*, 133–144.

Downloaded by [Griffith University] at 00:29 30 June 2015

Patrick, H., Knee, C. R., Canevello, A., & Lonsbary, C. (2007). The role of need fulfillment in relationship functioning and well-being: A self-determination theory perspective. *Journal of Personality and Social Psychology*, *92*, 434–457.
Roelofs, J., Meesters, C., ter Huurne, M., Bamelis, L., & Muris, P. (2006). On the links between attachment style, parental rearing behaviors, and internalizing and externalizing problems in non-clinical children. *Journal of Child and Family Studies*, *15*, 331–344.
Rowe, S. L., Zimmer-Gembeck, M. J., Rudolph, J., & Nesdale, D. (2015). A longitudinal study of rejecting and autonomy-restrictive parenting, rejection sensitivity, and socioemotional symptoms in early adolescents. *Journal of Abnormal Child Psychology*. doi:10.1007/s10802-014-9966-6.
Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*, 68–78.
Ryan, R. M., & Deci, L. D. (2008). A self-determination theory approach to psychotherapy: The motivational basis for effective change. *Canadian Psychology*, *49*, 186–193.
Silva, M. N., Vieira, P. N., Coutinho, S. R., Minderico, C. S., Matos, M. G., Sardinha, L. B., & Teixeira, P. J. (2010). Using self-determination theory to promote physical activity and weight control: A randomized controlled trial in women. *Journal of Behavioral Medicine*, *33*, 110–112.
Simons-Morton, B., Haynie, D. L., Crump, A. D., Eitel, P., & Saylor, K. E. (2001). Peer and parent influences on smoking and drinking among early adolescents. *Health Education & Behavior*, *28*, 95–107. Retrieved from http://heb.sagepub.com/content/28/1/95.full.pdf
Skinner, E. A., Johnson, S., & Snyder, T. (2005). Six dimensions of parenting: A motivational model. *Parenting: Science and Practice*, *5*, 175–235.
Skinner, E. A., Kindermann, T. A., & Furrer, C. J. (2009). A motivational perspective on engagement and disaffection. *Educational and Psychological Measurement*, *69*, 493–525.
Soenens, B., Park, S. Y., Vansteenkiste, M., & Mouratidis, A. (2012). Perceived parental psychological control and adolescent depressive experiences: A cross-cultural study with Belgian and South-Korean adolescents. *Journal of Adolescence*, *35*, 261–272.
Spinrad, T. L., Eisenberg, N., Silva, K. M., Eggum, N. D., Reiser, M., Edwards, A., … Gaertner, B. M. (2012). Longitudinal relations among maternal behaviors, effortful control and young children's committed compliance. *Developmental Psychology*, *48*, 552–566.
Susman-Stillman, A., Kalkose, M., Egeland, B., & Waldman, I. (1996). Infant temperament and maternal sensitivity as predictors of attachment security. *Infant Behavior & Development*, *19*, 33–47.
Thomas, R., & Zimmer-Gembeck, M. J. (2011). Accumulating evidence for best practice: The case of Parent-Child Interaction Therapy and child maltreatment. *Child Development*, *82*, 177–192.
Waller, R., Gardner, F., Viding, E., Shaw, D. S., Dishion, T. J., Wilson, M. N., & Hyde, L. W. (2014). Bidirectional associations between parental warmth, callous unemotional behavior, and behavior problems in high-risk pre-schoolers. *Journal of Abnormal Child Psychology*, *42*(8), 1275–1285.
Whipple, N., Bernier, A., & Mageau, G. A. (2011). Broadening the study of infant security of attachment: Maternal autonomy-support in the context of infant exploration. *Social Development*, *20*, 17–32.
Zhou, Q., Eisenberg, N., Losoya, S. H., Fabes, R. A., Reiser, M., Guthrie, I. K., … Shepard, S. A. (2002). The relations of parental warmth and positive expressiveness to children's empathy-related responding and social functioning: A longitudinal study. *Child Development*, *73*, 893–915. Retrieved from http://www.jstor.org/stable/3696258
Zimmer-Gembeck, M. J., & Collins, W. A. (2003). Autonomy development during adolescence. In G. R. Adams & M. Berzonsky (Eds.), *Blackwell handbook of adolescence* (pp. 175–204). Oxford: Blackwell.
Zimmer-Gembeck, M. J., Ducat, W., & Collins, W. A. (2011). Autonomy development during adolescence. In B. B. Brown & M. Prinstein (Eds.), *Encyclopedia of adolescence* (pp. 66–76). New York: Academic Press.

Downloaded by [Griffith University] at 00:29 30 June 2015

Appendix 1. Items on the parenting context scale – toddler version

(1) I don't understand my child very well (Rejection)
(2) I make it clear what will happen if my child does not follow our rules (Structure)
(3) I let my child get away with things I really shouldn't allow (Chaos)
(4) I always encourage my child to express his/her feelings (Autonomy Support)
(5) My child fights me at every turn (Coercion)
(6) I really know how my child feels about things (Warmth)
(7) Sometimes my child is hard to like (Rejection)
(8) I make it clear to my child what I expect from him/her (Structure)
(9) When my child gets in trouble, my reaction is not very predictable (Chaos)
(10) I support my child's efforts to try new things on his/her own (Autonomy Support)
(11) To get my child to do something, I have to yell at him/her (Coercion)
(12) I do something special with my child (Warmth)
(13) At times the demands that my child makes feel like a burden (Rejection)
(14) My child doesn't seem to know what I expect from him/her (Chaos)
(15) I set aside time to talk to my child about what is important to him/her (Warmth)
(16) My child needs more than I have time to give to him/her (Rejection)
(17) When I tell my child I'll do something, I do it (Structure)
(18) I support my child to be him/herself (Autonomy Support)
(19) I sometimes feel that I have to push my child to do things (Coercion)
(20) I can always find time for my child (Warmth)
(21) I can get mad with my child without warning (Chaos)
(22) I allow my child to explore things by him/herself (Autonomy Support)
(23) I find myself getting into power struggles with my child (Coercion)
(24) I expect my child to follow our family rules (Structure)

Downloaded by [Griffith University] at 00:29 30 June 2015