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DEVELOPMENTS

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## Development and initial validation of the comprehensive early childhood parenting questionnaire (CECPAQ) for parents of 1–4 year-olds

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### ABSTRACT

Parenting is a multifaceted task and the way in which parents fulfill this task plays an important role in children's growth and development, especially in early childhood. Conceptualization and assessment of parenting behavior is elementary for research on child and family development and would fill a gap in clinical work, as there is a lack of questionnaires simultaneously assessing multiple parenting behaviors specific for early childhood. Therefore the Comprehensive Early Childhood Parenting Questionnaire (CECPAQ) was designed; a parent report measure of commonly occurring behaviors in five domains of parenting (i.e., support, stimulation, structure, harsh discipline, and positive discipline) central to early childhood. Data were collected from 1139 mothers and 526 fathers of 1–4 year-old children. Confirmatory factor analysis confirmed a five-factor structure (composed of 54 items). The five parenting domains were found to have good internal consistency and temporal stability. Preliminary evidence of validity of the CECPAQ was demonstrated by moderate relationships with measures of parental stress and child problem behavior. It is concluded that the CECPAQ is a promising measure of self-perceived parenting behavior for parents of 1–4 year-old children.

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Parenting is a multifaceted task and the way in which parents fulfill this task plays an important role in children's growth and development, especially in early childhood (0–5 years; e.g., Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000). Conceptualization and measurement of parental behavior constitutes an elementary component of research on child development, and researchers and practitioners are increasingly concerned with assessing parental behavior (e.g., Duppung Hurley, Huscroft-D'Angelo, Trout, Griffith, & Epstein, 2013). Self-report

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measures are considered a useful approach to assess these behaviors, as they are easy to administer and provide summary reports of behavior over longer periods of time or in situations that are difficult to observe. Whereas recently a comprehensive parenting questionnaire was published concerning children aged 5–13 (Sleddens et al., 2014), for younger children no such questionnaire is yet available. The development and initial validation of a comprehensive parenting questionnaire assessing various parenting behaviors central to the development of toddlers and preschoolers is described in this article.

At least three main theories regarding the role of parenting in early childhood are important. First, the attachment theory (Bowlby, 1969) states that parents need to serve as a warm and secure base, enabling children to feel comfortable to explore their environment, manipulate objects, and interact with others; experiences that form the foundation for healthy child development (Bowlby, 1969; Sroufe, 1979). Parents form a secure base by showing *affection* to their child, by being *sensitive* to their cues, and by being *responsive* by satisfying the child's needs and helping the child to regulate its behavior and emotions. In addition, parents have to provide an organized environment and external structure for children by setting clear and consistent rules (*consistency*) and follow-through on them (i.e., *not being lax*), without being *overreactive* by having their emotional state interfere too much with their responses to their child (Grolnick & Pomerantz, 2009; Lorber, 2012). Indeed, previous studies showed that high levels of parental support and structure are associated with positive developmental outcomes of the child (Davidov & Grusec, 2006; Verhoeven, Junger, Van Aken, Deković, & Van Aken, 2010a; Zimmer-Gembeck & Thomas, 2010).

A second theory, formulated by Vygotsky, states that parents stimulate their child to learn and develop (Holden, 2010) by *engaging them in learning activities* (i.e., storytelling, singing, dancing) and providing a variety of *experiences* (i.e., grocery shopping, watering plants, playing with other children). Indeed, such activities and experiences are known to contribute to the child's cognitive, communicative, motor and socio-emotional development (Cates et al., 2012; Miquelote, Santos, Caçola, Montebelo, & Gabbard, 2012). In addition, the provision of age appropriate *toys* has been associated with better cognitive and language development and reduction of the need for early intervention to support their development (Dos Santos et al., 2008; Thepsuthammarat, Thinkhamrop, & Choprapawon, 2012; Tomopoulos et al., 2006).

Thirdly, social learning theory (Bandura, 1977) states that children learn how to behave in their social context through modeling and observational learning. Parents can stimulate both positive and negative behavior in their children by using rewards and punishment. The parenting domain of *positive discipline* refers to parental behavior that reinforces the child's adaptive behavior, for example, parental induction (e.g., explaining why certain behavior is unwanted) and praising (Choe, Olson, & Sameroff, 2013; Kerr, Lopez, Olson, & Sameroff, 2004).

In contrast, the domain of *harsh discipline* refers to disciplinary techniques, such as *verbal and physical punishment* and *psychological control*, with which parents try to reduce unwanted behavior, but also induce fear and aggression in their children. Indeed, children who are frequently exposed to harsh disciplinary techniques are more likely to show oppositional and aggressive behaviors (Gershoff, 2002; Lansford et al., 2011; Lysenko, Barker, & Jaffee, 2013; Stormshak, Bierman, McMahon, & Lengua, 2000). The use of *psychological control*- i.e., parents' attempts to control their children's behavior through psychological means, like intrusive behavior, love withdrawal and guilt induction (Barber, 1996)- is thought to limit the child's opportunities to build a healthy self-image and results in more behavior problems (Aunola & Nurmi, 2005; Verhoeven et al., 2010a; Verhoeven, Junger, Van Aken, Deković, & Van Aken, 2010b).

Based on these three theories, we deduced five domains of parenting that we considered important for our questionnaire: support (sensitivity, responsiveness, affection), stimulation (activities, exposure, toys), structure (consistency, laxness, overreactivity), and positive or harsh discipline (physical and verbal punishment, psychological control) (see Appendix 1). Existing questionnaires often fall short of assessing this wide range of parenting behaviors simultaneously (Duppong-Hurley et al., 2014).

Another restriction of the existing self-report questionnaires is that they often include items that refer to parental attitudes, beliefs, and feelings of self-efficacy rather than behavior (Lovejoy, Weis, O'Hare, & Rubin, 1999). Although these cognitions and feelings of efficacy are important determinants of parenting behavior (Bugental & Johnston, 2000; Jones & Prinz, 2005), they represent different aspects of parenting. The inclusion of such aspects hampers the interpretation of the measured constructs.

As a consequence of these restrictions, many researchers rely on a combination of subscales of existing measurement instruments, use different items, and make their own adjustments to item content to render them age-appropriate. This hinders the comparison of research results and limits the possibilities to develop universal theories about the role of parenting in child development.

We therefore developed a new questionnaire that captures a range of parenting behaviors that are specific and potentially important for early child development: the CECPAQ. We wanted our measure to focus on behaviors that could be shown by the parent – and not include parental attitudes and beliefs- and that have a strong theoretical foundation regarding the relationship to early child development. To ensure our questionnaire is valid to assess parenting behaviors of both mothers and fathers, we included a sample of fathers in our study.

In the current study, we report on the development of the CECPAQ and its psychometric properties by (1) describing the item-selection for the questionnaire, (2) studying the factor structure and reliability of the CECPAQ, and (3) examining how the CECPAQ is associated with parental stress and child problem behavior as means of validity.

## Methods

### Participants

Participants were recruited through day care centers and preschools and consisted of 1139 families of 1–4 year-old children ( $M = 26.05$  months,  $SD = 9.35$ ; 50.8% girls). From 526 families both parents participated. As such, the sample consists of 1139 mothers and 526 fathers. The average age was  $M = 33.17$  years ( $SD = 4.39$ ) for mothers and  $M = 35.29$  years ( $SD = 5.00$ ) for fathers. The majority of the parents were Dutch/Caucasian (97.2% of the mothers, 99.8% of the fathers) and currently living together (97.4%). Most parents were college educated (62% of the mothers and 56.5% of the fathers). The average number of children living in the family was  $M = 1.82$ ,  $SD = .82$ , ranging from 1 to 6.

### Procedure

Families received a recruitment letter explaining the goals of the project (i.e., to examine how mothers and fathers parent their 1–4 year-old child). Following the families consent, self-report questionnaires were mailed and parents were asked to return the completed questionnaires within two weeks.

### Measures

#### CECPAQ

Starting from our conceptualization of parenting as consisting of five main domains (support, structure, stimulation, harsh discipline, and positive discipline), four parenting experts selected a range of existing measures of parenting behavior that were available and commonly used to assess parenting behaviors in toddlers and preschoolers. After reviewing these questionnaires, the experts agreed on 60 potential items to assess the parenting behaviors described in the introduction; 15 items for each of the first 4 parenting domains and 5 items to assess positive discipline. Six of these items were dropped because of redundancy or ambiguity. An overview of the remaining 54 items and how they are clustered in (sub)domains of parenting is provided in Appendix 1.

All items were assessed on a 6-point scale, indicating how often parents showed the described behavior (1 = *never* to 6 = *always*). For nine items (item 14–23), ratings were made on 6-point scales that are anchored by one effective and one ineffective response to the presented parenting situation.

#### Parental stress

A subsample of 224 mothers and 214 fathers filled out the Parental Stress Index, Short Form (PSI-SF; Abidin, 1995), Dutch version (De Brock, Vermulst, Gerris, & Abidin, 1992); a self-report measure of 25 items measuring parenting stress on

a 6-point Lickert Scale ranging from 1 = *Not applicable* to 6 = *Very applicable*. Cronbach's alpha's in the current study were  $\alpha_{\text{Mother}} = .92$ , and  $\alpha_{\text{Father}} = .88$ .

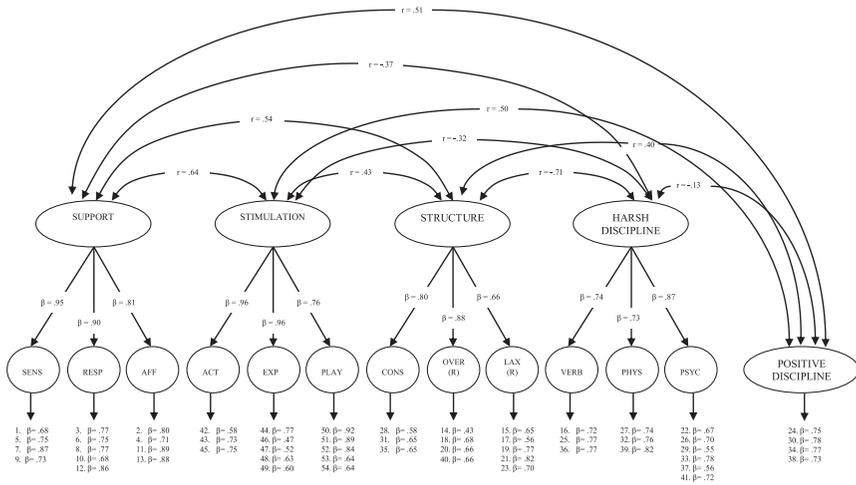
### *Child behavior problems*

A subsample of 181 mothers and 176 fathers filled out the Child Behavior Checklist 1½–5 (Achenbach & Rescorla, 2000) to assess their child's internalizing and externalizing behavior. The two broad scales of externalizing ( $n = 24$  items) and internalizing behavior ( $n = 36$  items) were used. Cronbach's alpha in the current study for internalizing and externalizing behavior respectively were:  $\alpha_{\text{Mother}} = .85$  and  $.89$ ,  $\alpha_{\text{Father}} = .78$  and  $.89$ .

### *Data analyses*

To test whether hypothesized theoretical model fits the data we used, the CECPAQ is examined by means of Confirmatory Factor Analyses using MPlus version 6.0 (Muthén & Muthén, 2011). The nested structure of the data (i.e., for 526 families both parents participated and reported parenting behavior regarding the same child) was accounted for by means of testing 'complex structure' (Muthén & Muthén, 2011). The goodness of fit of the models was assessed by multiple criteria: root mean squared error of approximation (RMSEA) value less than .08, the comparative fit index (CFI), and the Tucker Lewis index (TLI) greater than .90 are considered an acceptable fit (Hu & Bentler, 1999; Kline, 2005). Factor loadings were considered salient when they were at least .40 (Stevens, 2002). As the data are ordered-categorical measures and not normally distributed (skewness of item scores ranged from  $-4.77$  to  $4.76$ ; kurtosis from  $-1.04$  to  $29.83$ ), we used the Robust Weighted Least Squares procedure for parameter estimation (Muthén & Muthén, 2011). Full information maximum likelihood estimation (Muthén & Muthén, 2011) was used to handle missing data. Missing data regarding parenting items was limited to 1–2.5%. Parents who had missing data on 1 or more items of the CECPAQ did not differ from parents with full data on the CECPAQ regarding their age, gender, education level, family size, levels of experienced stress or levels of reported child internalizing and externalizing behavior (statistics were:  $-0.052 < t < 2.680$ ;  $.007 < p < .682$ ). There was, however, a small –but significant – difference of 3 months in the mean age of the child they were raising ( $t = 3.564$ ,  $p < .001$ ).

We tested the hypothesized factor structure of the CECPAQ representing all 54 items, concerning 12 subdomains (lower order), and 5 parenting domains: four higher order (Support, Stimulation, Structure, and Harsh Discipline) and one first order factor (Positive Discipline) (see Figure 1; five-factor model). Items loaded on just one subdomain of parenting, and each subdomain of parenting loaded on only one parenting domain. The five parenting domains were allowed to correlate (Figure 1). Two comparison models were tested: A statistical comparison model, in which one higher-order factor loaded on all 13 (sub) domains of parenting (one-factor model), and a comparison model discerning



**Figure 1.** Factor structure of the CECPAQ and standardized parameters.

Notes: Sens = sensitivity, Resp = responsiveness, Aff = affection, Act = learning activities, Exp = exposure to learning environment, Play = provision and playing with toys, Cons = consistency, Over (R) = overreactivity, reversed coded, Lax = laxness, reversed coded, Verb = verbal punishment, Phys = physical punishment, Psc = psychological punishment.  $r$  = correlations between parenting domains,  $\beta$  = factor loadings. Item numbers in the Figure refer to the questions in Appendix 1.

two higher-order factors (two-factor model), ‘Warmth/Support’ loading on the subdomains of Support (responsiveness, sensitivity, affection) and Stimulation (activity, exposure, play), and ‘Control’ loading on the subdomains of Structure (consistency, overreactivity, laxness), Harsh Discipline (verbal punishment, physical punishment, psychological control) and the domain of Positive Discipline. The five-factor model is nested in each of the two comparison models. A significant ( $p < .01$ ) difference in the model’s chi-square would indicate that the five-factor model explains the data better than the comparison model. As we used robust maximum-likelihood estimation, and differences between two robust chi-square goodness-of-fit statistics do not have a chi-square distribution (Satorra, 2000), an adjusted chi-square difference test was used to compare model fit (Muthén & Muthén, 2011; Satorra & Bentler, 1999).

The CECPAQ was considered reliable when the Cronbach’s alpha is  $>.70$  in each parenting domain (Kline, 2000). The validity of the CECPAQ was determined by examining its correlations with parental stress and children’s behavior problems. Based on previous studies, medium correlations are expected between parenting and parental stress (e.g., Anthony et al., 2005; Mackler et al., 2015), and small to medium correlations between parenting and child problem behavior (e.g., Lansford et al., 2011; Lysenko et al., 2013; Stormshak et al., 2000; Verhoeven et al., 2010a, 2010b). These correlations are expected to be negative for all parenting domains, except for Harsh Discipline.

**Table 1.** Fit measures of the three tested models regarding parenting.

	Model fit measures				Adjusted Chi-Square difference test	
	(df) $\chi^2$	RMSEA	CFI	TLI	(df) $\chi^2$	<i>p</i>
<i>Hypothesized model</i>						
five-factor model	(1355) 6383.05	.05	.92	.91		
<i>Comparison models</i>						
one-factor model	(1364) 12,310.55	.07	.82	.81	(9) 1306.98	.00
two-factor model	(1363) 9949.93	.06	.86	.85	(8) 828.47	.00

## Results

### Factor structure

Fit measures are presented in Table 1. Model fit indices were only acceptable for the 5-factor solution (Table 1). The adjusted chi-square difference test showed that the hypothesized 5-factor solution fitted the data significantly better than the 1-factor and 2-factor solutions. Estimated standardized parameters of the five-factor model are presented in Figure 1. All lower-order factor loadings were statistically significant ( $p < .001$ ), with standardized loadings ranging from  $\beta = .43$  to  $\beta = .92$ . In addition, the factor loadings regarding the higher order factors were all statistically significant ( $p < .001$ ) and ranged from .66 to .96. The correlations between the parenting domains were all statistically significant ( $p < .001$ ) and ranged from  $r = -.14$  to  $r = -.71$ .

### Reliability

The full sample of 1665 parents was used to estimate the internal consistency of the CECPAQ. Cronbach's alpha's for mothers/fathers were respectively: .88/.88 for Support, .82/.86 for Stimulation, .75/.77 for Structure, .79/.79 for Harsh Discipline, and .76/.77 for Positive Discipline.

### Validity

Correlations between the CECPAQ and the PSI and CBCL are presented in Table 2. For both mothers and fathers, Support and Structure were negatively and Harsh Discipline was positively related to parental stress. For fathers, but not for mothers, Stimulation and Positive Discipline were also negatively related to parental stress. The statistically significant correlations varied from .23 to .48.

Three of the five parenting domains were related to child problem behavior. Structure was negatively related and Harsh Discipline positively, to internalizing and externalizing behaviors, for mothers as well as fathers. For fathers Support was negatively associated with children's internalizing and externalizing behaviors, whereas for mothers this association was only statistically significant for

**Table 2.** Descriptives of the CECPAQ scores and correlations with parental reported stress (PSI-SF) and child behavior problems (CBCL).

	M(SD) <sup>a</sup>	Median	Interquar- tile Range	Correlations		
				PSI-SF <sup>b</sup>	Child's Int. Behavior <sup>c</sup>	Child's Ext. Behavior <sup>c</sup>
<i>Mothers</i>						
Support	5.15 (.45)	5.15	.54	-.36***	-.10	-.19*
Stimulation	4.94 (.52)	4.92	.69	-.11	-.05	-.02
Structure	4.88 (.47)	4.89	.58	-.48***	-.20**	-.32***
Harsh discipline	1.92 (.47)	1.92	.58	.44***	.24**	.35***
Positive discipline	4.82 (.77)	5.00	.75	-.13	-.02	-.02
<i>Fathers</i>						
Support	4.75 (.52)	4.77	.62	-.43***	-.19*	-.16*
Stimulation	4.44 (.62)	4.46	.85	-.23**	-.02	-.01
Structure	4.70 (.51)	4.75	.58	-.39***	-.15*	-.20**
Harsh discipline	2.11 (.49)	2.08	.67	.36***	.15*	.21**
Positive discipline	4.60 (.76)	4.75	1.00	-.20**	.03	-.09

Note: All presented results are based on sum scores. <sup>a</sup>Means, standard deviations, and medians are based on sum scores of 1139 mothers and 526 fathers. Theoretical range is 1-6 for all parenting domains; <sup>b</sup>Correlations between the CECPAQ and PSI-SF are based on 224 mothers and 214 fathers; <sup>c</sup>Correlations between CECPAQ and CBCL are based on 181 mothers and 176 fathers. Int. behavior = Internalizing Behavior; Ext. Behavior = Externalizing Behavior.

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

externalizing behaviors. The statistically significant correlations varied from .15 to .35. The parenting domains of Stimulation and Positive Discipline were unrelated to children's problem behavior.

## Discussion

The CECPAQ was developed as a comprehensive self-report measure to assess five main domains of parenting behaviors central to the development of toddlers and preschoolers. The current study provides initial support for the factor structure, reliability, and validity of the CECPAQ.

### Factor structure and reliability

A confirmatory factor analysis including all final 54 items of the CECPAQ, provided a good fit with the intended five factor structure and showed that all factor loadings had a greater value than .40. The reliabilities of the five parenting domains -with the lowest Cronbach's alpha of .75- is acceptable and relatively high for a self-report parenting questionnaire: According to a recent review by Duppong Hurley, Huscroft-D'Angelo, Trout, Griffith, and Epstein (2014) the majority of existing parenting questionnaires had Cronbach's alpha ratings between .50 and .69. The relatively high internal consistencies and the moderate correlations between the different parenting domains indicate that the CECPAQ

is capable of reliably assessing five distinct domains of parenting. Some parenting domains were strongly correlated (e.g., Support with Stimulation, Structure with Harsh Discipline), but a more parsimonious factor structure in which the subdomains of these parenting domains were collapsed into a single factor did not improve the model's fit. This confirms the idea that these parenting domains are conceptually different, and justifies our decision to keep them separated.

### **Validity**

We also found support for the validity of the CECPAQ. The relations found between parental stress and parenting were as expected – both regarding strength as well as direction. Medium to strong correlations were found between parental stress and parenting, with negative relations for parental reports of support and structure, and positive relations for harsh discipline. For fathers, stress was also negatively related to reported stimulation and positive discipline. This is in line with previous findings (Anthony et al., 2005; Mackler et al., 2015) and Belsky's (1984) model of parenting, stating that parents who report high levels of stress may have fewer social, emotional, and tangible resources on which to draw as parents. Consequently, these parents may be more irritable and distressed when dealing with their children, as expressed in lower levels of support, stimulation, structure and positive discipline, and higher levels of harsh discipline.

Furthermore lower levels of support and structure, and more use of harsh discipline were significantly associated with more problem behavior in children, with small to medium effect sizes. This is also in accordance with previous studies (e.g., Lansford et al., 2011; Lysenko et al., 2013; Stormshak et al., 2000; Verhoeven et al., 2010a, 2010b). Parental stimulation was unrelated to the child's problem behavior. This is not surprising, as parental behaviors in this domain are aimed at stimulating cognitive, motor, and language development, rather than social-emotional behaviors. Future studies should examine how the parenting domains assessed by the CECPAQ are related to children's developmental outcomes, other than problem behavior.

No relation was found between parental positive discipline and the children's behavior problems. This might reflect the 'bad is stronger than good' principle, which states that good events (e.g., positive discipline) have less impact than bad events (Baumeister, Bratlavsky, Finkenauer, & Vohs, 2001). It could also be that the majority of the children in our sample is too young to find an effect of positive discipline on behavioral problems, as children just start to internalize rules of conduct in the preschool period (Calkins & Fox, 2002). Perhaps no association was found between positive discipline and child problem behavior as this domain was assessed by only four items, concerning just two discipline techniques: induction and praising. Passini, Pihet, and Favez (2014) recently found that mothers of toddlers also use techniques including timeout and

removal of privileges. Further study of the concept of positive discipline and its relation to children's behavior is recommended. In-depth interviews with parents could further our insight in disciplinary techniques parents of toddlers and preschoolers use.

The results of this study should be interpreted in the light of its limitations. First, the sample of this study was rather homogenous (mainly high educated, intact families), limiting the generalizability of the results. In addition, the use of a single reporter for most data might have inflated the correlations between the CECPAQ and the other parent and child measures. Also, social desirability may have caused bias, especially when assessing negative parenting behaviors. Future studies regarding the validity of the CECPAQ should use multiple methods, such as observations of parent-child interactions to examine the relation between CECPAQ and actual parenting behavior. An important next step is to examine the suitability of the CECPAQ in other target groups (e.g., low-educated parents, clinical samples).

In conclusion, the CECPAQ seems successful in assessing parental perceptions regarding five parenting domains, for mothers and fathers of 1–4 year-olds: Support, Stimulation, Structure, Harsh and Positive Discipline. Although not exhaustive, these parenting domains are focal in a range of theoretical models explaining child behavioral and developmental problems and are therefore highly relevant for researchers and clinicians working with young children.

## Disclosure statement

No potential conflict of interest was reported by the authors.

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## Appendix 1.

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### Support

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Support refers to the extent to which parents are attuned, supportive and acquiescent to the child's needs and demands, and consists of three subdomains:

#### *Sensitivity*

1. I notice when my child is sad or doesn't feel good
5. I know what my child feels or needs
7. I listen to my child's feelings and understand them
9. I understand why my child is scared or upset

#### *Responsiveness*

3. When my child is having a hard time, I am able to help him/her
6. I am able to comfort my child when s/he is scared
8. I am able to calm my child when s/he is irritable
10. I am good at attracting my child's attention
12. When my child is not feeling well, I'm able to comfort him

#### *Affection*

2. I hug, kiss, or hold my child for no particular reason
4. I tell my child how happy s/he makes me
11. My child and I have warm, intimate times together
13. I express affection by hugging, kissing, and holding my child

Sources: Nijmeegse Opvoed Vragenlijsten (NOV: Gerris et al., 1993), Parent Behavior Inventory (PBI; Lovejoy et al., 1999), Child Rearing Questionnaire (CRQ: Sanson, 1996), Parental Cognitions and Conduct Toward the Infant Scale (PACOTIS, Boivin et al., 2005)

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### Stimulation

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Stimulation refers to the extent to which parents engage their child in learning activities and consist of three subdomains:

#### *Activities*

42. I tell my child stories or read books to him/her.
43. I sing and dance with my child or listen to music with him/her
45. I encourage my child to play alone and explore his/her environment

#### *Exposure*

44. I take my child outside to play, walk, or cycle
46. I regularly let my child play with other children
47. I regularly let my child play with adults, other than the parents
48. I involve my child in daily activities such as cooking, taking care of pets, or watering plants
49. I take my child with me to do the grocery shopping

#### *Toys*

50. My child and I play together with colorful toys made of different materials (e.g., soft toys, wooden blocks, rattle book)
51. My child and I play together with toys that can roll (e.g., ball, cars, pull animal)
52. My child and I play together with building blocks, Lego, or other stacking toys
53. My child has his/her own books that s/he may play with, even though s/he is not careful with them
54. My child and I play together with musical toys (e.g., drum, flute)

Sources: Longitudinal Study of Australian children, the Affordances in the Home Environment for Motor Development (AHMED; Rodrigues, Saraiva, & Gabbard, 2005), StimQ Cognitive Home Environment (Dreyer, Mendelsohn, & Tamis-LeMonda, 1996, 2001).

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 Structure
 

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Structure refers to the extent to which parents provide an organized environment and external structure for their child, and consists of three subdomains:

*Consistency*

- 28. When my child misbehaves, I let my child out of a punishment early
- 31. It happens that my child is not punished when s/h has done something wrong
- 35. My child talks me out of being punished after s/he has done something wrong

*Overreactivity*

- 14. When I'm upset or under stress...I'm on my child's back/I am no more picky than usual
- 18. When there is a problem with my child... Things build up and I do things I don't mean to/Things don't get out of hand
- 20. When my child misbehaves... I handle it without getting upset/I get so frustrated or angry that my child can see I'm upset
- 40. The punishment I give to my child depends on my mood

*Laxness*

- 15. When my child does something I don't like... I do something about it every time it happens/I often let it go
- 17. When my child won't do what I ask... I often let it go or end up doing it myself / I take some other action
- 19. When I give a fair threat or warning... I often don't carry it out / I always do what I said
- 21. When I say my child can't do something... I let my child do it anyway / I stick to what I said
- 23. When my child is upset when I say 'no'... I back down and give in / I stick to what I said

Sources: Alabama Parenting Questionnaire (APQ; Shelton, Frick, & Wootton, 1996), shortened Parenting Scale (PS; Irvine, Biglan, Smolkowski, & Ary, 1999)

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 Harsh discipline
 

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Harsh discipline refers to the extent with which parents use harsh, power assertive disciplinary techniques, including three subdomains :

*Verbal punishment*

- 16. When my child misbehaves... I raise my voice or yell/I speak to my child calmly
- 25. When my child disobeys, I get angry and raise my voice
- 36. When my child is whining, I get angry and raise my voice

*Physical punishment*

- 27. I slap my child when s/she has done something wrong
- 32. When my child misbehaves, I get angry and grab hold of him/her
- 39. I spank my child for whining

*Psychological control*

- 22. When my child does something I don't like, I insult my child
- 26. I tell my child that s/he should be ashamed when s/he misbehaves
- 29. When my child does something I don't like, I scowl at him/her and pretend he/she does not exist
- 33. I make my child feel guilty when s/he doesn't meet my expectations
- 37. When my child does something I don't like, I don't talk to him/her until he/she behaves better
- 41. I criticize my child when s/he doesn't meet my expectations

Sources: Alabama Parenting Questionnaire (APQ; Shelton et al., 1996), Parenting Style and Dimension Questionnaire (PSDQ; Robinson, Mandelco, Olsen, & Hart, 2001)

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 Positive discipline
 

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Positive discipline refers to the extent with which parents use disciplinary techniques that promote positive child behavior, including induction and praising:

- 24. I explain to my child why certain rules must be followed
- 30. I explain to my child why s/he is being punished or restricted
- 34. I compliment or hug my child when s/he does something well
- 38. I explain to my child the consequences of his/her behavior

Sources: Alabama Parenting Questionnaire (APQ; Shelton et al., 1996), Nijmeegse Opvoed Vragenlijst (NOV; Gerris et al., 1993)

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