The Norwegian Center for Child Behavioral Development

Developing tasks for the longitudinal study of parent-child interaction

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Abstract

- This presentation addresses issues of developing and adjusting tasks to be used in videotaped structured observations for assessing development of behavior-problems and social-competence in a general population of young Scandinavian children.

Background

- Videotaped structured observations that take place in the home or laboratory can provide an objective means for assessing parent-child interaction independent of participant report.
- Observational data have been shown to predict later child outcomes above and beyond parental or interviewer report.
- Videotaped parent-child interactions were to be included as part of a large developmental and population based longitudinal study with children aged 12 to 36 months.
- Existing structured observation tasks either did not cover development of behavior-problems and social-competence for the targeted age range, or were not appropriate for use with a non-clinical sample.

Objectives

- To adapt and adjust tasks for use in videotaped structured observations of parent-child interactions.
- To assess feasibility, acceptability and reliability of measures and range of variation of responses.

Main study

- The Behavior Outlook Norwegian Developmental Study (BONDS) is a longitudinal population based study of the development of behaviorproblems and social-competence that started data collection in fall 2006.
- Families are recruited at child health clinics for a first interview at age 6 months, and followed at least until age 4.
- Research issues include developmental trajectories of behaviorproblems and social-competence, and their patterns of interaction.
- The study's unique contribution will be its focus on very early development in a large sample of girls (n=750) and boys (n=550) in a Scandinavian context.

Method

- Input from research colleagues and clinical experts were elicited for designing or adjusting structured tasks for videotaping parent-child interaction.
- The tasks were designed to capture variation in behavior meaningful for the development of behavior-problems and social-competence. They included free-play, clean-up, teaching and waiting tasks appropriate for the respective ages.
- A microsocial coding system for capturing behavior during ongoing interaction based on The Family and Peer Process Code (FPPC, Oregon Social Learning C enter) was adapted for use with toddlers.
- Pilot studies were conducted in 2005-2006. Families with children aged 12 months (n=29), and 24 months (n=26) were recruited from child health clinics.
- Following personal interviews, videotaped structured observations of the child and one parent were conducted. To standardize the observations they were recorded in a laboratory setting.
- Multiple analytic frameworks were applied, including coding of interactions on a frame-by-frame basis.
- Trained coders scored the pilot videos using the preliminary coding system named Toddler and Parent Interaction Coding System (TOPICS).

Results

- Selected structured parent-child interaction tasks at 12 months included: (a) Free play (4 min), (b) parent clean-up toys (2 min), (c) teaching tasks with 2 toys (6 min) and (d) child waits in high chair while parent is busy (3 min).
- Selected structured parent-child interaction tasks at 24 months included: (a) Free play (4 min), (b) child clean-up toys (2 min), (c) teaching tasks with 2 toys (6 min), (d) child exposed to strange sound (2 min) and (e) waiting task with no toys (2 min).
- Pilot studies results revealed that the videotaped structured interaction tasks were rated as highly acceptable by parents with a mean of 4.1 (range 3-5) on a Likert scale ranging from 1 (very unacceptable) to 5 (very acceptable).
- Inter-rater reliabilities at both 12 and 24 months were acceptable.
- Coding results suggested that the selected interaction tasks seemed to generate meaningful variation in codeable behaviors.

Table 1. Descriptive statistics for main coding categories

	12 months n=29		*24 months n=26*	
	M (SD)	%	M (SD)	%
Verbal behavior	174.86 (31.44)	42	370.42. (63.18)	70
Vocal behavior	89.31 (25.38)	21	56.23 (18.77)	11
Nonverbal behavior	160.58 (45.79)	37	102.50 (42.73)	19

Table 2. Inter-rater reliabilities

	12 months 7/29	*24 months 8/26*
Overall agreement	80%	76%
Choen's kappa	0.76	0.69

Conclusion

- The developed structured interaction tasks seem appropriate, acceptable and feasible for assessing development of behavior-problems and social-competence in children aged 12 and 24 months in a Scandinavian setting.

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