

MOTHER-CHILD INTERACTION: LIVE QUALITATIVE RATINGS

Companion Document

NICHD SECCYD Manual Chapter 10-1

Description

Mother-child interaction during an entire visit was rated using the qualitative ratings of the Observational Record of the Caregiving Environment (ORCE), conducted during observations in child care settings when study participants were 6 months old. In the ORCE, ratings are made of eight features of the caregiver's interaction with the infant: sensitivity/responsivity to distress, sensitivity/responsivity to nondistress, intrusiveness, detachment/disengagement, stimulation of development, positive regard for the child, negative regard for the child, flatness of affect. Five features of the child's behavior in the child care setting are rated: positive mood, negative mood, activity level, sociability, sustained attention. Ratings are made on a 4-point scale ranging from 1 = *not at all characteristic* to 4 = *highly characteristic*. See p. 94-120 of Chapter 10-1 in the NICHD common protocol operations and administration manuals for the qualitative ratings definitions and rating scale descriptors.

Administration: 6 months

The ORCE qualitative ratings were used to rate mother-child interaction during the 6-month common protocol home visit. Ratings were made following observation of the mother and child during the entire home visit ($n = 127$).

Scoring: NICHD Study of Early Child Care & Youth Development

Duration

The amount of time that the live qualitative ratings of maternal and child behavior were based on was recorded on the rating form. In cases where the infant was sleeping during some portion of the visit, the duration of the rating period was shorter than the visit itself. There are some cases of missing data on this variable due to the research assistant failing to note the time.

Duration of rating period (rating time in minutes) = **M6QUALRT**
 $N = 118, M = 72.33, SD = 26.51, \text{range} = 10-135$

Maternal Behavior

Higher scores indicate greater evidence of the indicated quality of maternal behavior toward the infant.

Sensitivity/responsivity to distress = **M6SENDIS**
 $N = 88, M = 3.23, SD = 0.77, \text{range} = 1-4$

Sensitivity/responsivity to nondistress = **M6SENNOD**
 $N = 125, M = 3.39, SD = 0.67, \text{range} = 2-4$

Intrusiveness = **M6INTRUS**
 $N = 126, M = 1.20, SD = 0.44, \text{range} = 1-3$

Detachment = **M6DETACH**
 $N = 126, M = 1.15, SD = 0.44, \text{range} = 1-4$

Stimulation of development = **M6STIMD**
 $N = 126, M = 2.26, SD = 0.90, \text{range} = 1-4$

Positive regard for the child = **M6POSREG**
N = 126, *M* = 3.63, *SD* = 0.57, range = 1-4

Negative regard for the child = **M6NEGREG**
N = 126, *M* = 1.04, *SD* = 0.20, range = 1-2

Flatness of affect = **M6FLAT**
N = 126, *M* = 1.13, *SD* = 0.42, range = 1-4

Child Behavior

Higher scores indicate greater evidence of the indicated quality of the child’s behavior.

Positive mood = **CH6MPMD**
N = 126, *M* = 2.87, *SD* = 0.64, range = 1-4

Negative mood = **CH6MNMD**
N = 127, *M* = 1.84, *SD* = 0.71, range = 1-4

Activity level = **CH6MACT**
N = 126, *M* = 2.61, *SD* = 0.76, range = 1-4

Sociability = **CH6MSOC**
N = 126, *M* = 3.01, *SD* = 0.73, range = 1-4

Sustained attention = **CH6MATTN**
N = 126, *M* = 2.87, *SD* = 0.64, range = 2-4

Interobserver Reliability

Because there was only one research assistant at each 6-month home visit, interobserver reliability was determined based on coding of ORCE reliability test tapes used in the child care common protocol and calculating agreement between the research assistants and the master coder. Each research assistant completed reliability tests on six test segments: segments 2, 3, & 4 on test tape #1, and segments 2, 3 & 5 on test tape #2. These test segments represent home-based caregiving situations (family day care, nanny care, father care).

Interobserver reliability was computed in two ways. First, we computed % exact agreement and % collapsed agreement (not characteristic = 1 or 2 rating, characteristic = 3 or 4 rating). Across the three research assistants who conducted 6-month home visits, overall reliability with the master coder was 66% exact and 87% collapsed. Agreements also were calculated for the individual rating scales. Second, we computed Cohen’s kappa coefficients with linear weighting on the individual scales for three pairs of raters.

	Exact agreement	Collapsed agreement	Kappa range	Average kappa
Maternal behavior				
Sensitivity to distress	17%	61%	.29 to .67	.43
Sensitivity to nondistress	78%	94%	.67 to .70	.69
Intrusiveness	72%	100%	-.20 to .33	.15
Detachment	61%	83%	.38 to .68	.57

	Exact agreement	Collapsed agreement	Kappa range	Average kappa
Stimulation of development	67%	100%	.74 to 1	.83
Positive regard for the child	72%	89%	.53 to .74	.61
Negative regard for the child	94%	100%	n/a	n/a
Flatness of affect	83%	100%	.65 to .84	.77
Child behavior				
Positive mood	44%	78%	.14 to .57	.37
Negative mood	78%	94%	.25 to .63	.43
Activity level	61%	78%	.17 to .50	.33
Sociability	61%	83%	.31 to .67	.49
Sustained attention	56%	67%	-.28 to .37	.08

Analysis Data Set

SS6MO

Raw Data Set

M6QUAL