

APPRAISALS OF PARENTING, PARENT–CHILD
INTERACTIONS, PARENTING STYLES, AND
CHILDREN: AN ANNOTATED BIBLIOGRAPHY

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PREFACE

Introduction

Contemporary society imposes a myriad of demands on parents at a time when extended family supports have diminished appreciably. Parents are beset with a host of worries, including financial stresses, extensive family and job responsibilities, a scarcity of quality child care, child discipline issues, sibling rivalries, the media, crime, and other potential threats. Even the most responsible and sensitive parents are overwhelmed at times.

Many pediatricians, nurse practitioners, social workers, and occupational therapists are aware of these stresses. At the same time, these professionals are also aware that parenting styles can vary greatly—and that some styles can be detrimental to a child's emotional and social well-being. Markedly ineffective parenting, for example, has been associated with child neglect, abandonment, or abuse. The more than 3 million cases of child abuse reported in 1997 attest to the seriousness of the problem.

An increasingly important issue for clinicians involves finding suitable ways to identify parents who require assistance, whether in the form of services or information. These challenges are complicated by the diversity of parenting needs. Some parents need only simple advice, for example, on dealing with their toddler's temper tantrums. Other parents' needs may stem from a lack of sufficient knowledge about child-rearing and appropriate parenting strategies—gaps that can lead to major disruptions in family functioning. An all-too-common example is the consistently oppositional child with parents who are ill-equipped to deal with his or her problems. Then there are parents with major concerns of their own (e.g., those with chronic depression, or young adolescent mothers), which can divert attention from parenting responsibilities. A multidisciplinary team of clinicians is often necessary to deal with the varied and complex problems facing these parents and their children. Perhaps an even more formidable and urgent challenge is responding to family situations where child abuse is suspected.

Clinicians, and pediatricians in particular, increasingly are being asked to recognize and respond to parents' needs—whatever their origin, nature, or gravity. Although helping parents with child-rearing is a long-standing tradition in pediatrics, physicians' advice often is not informed by objective criteria and parents' individual needs (Halpern, 1988; Parmelee, 1995). At the very least, promotion of child health and development requires identification of effective and noneffective parenting so that interventions can be offered when appropriate. Clearly, a great deal more is expected of today's pediatricians at a time when health care practices are subject to increased financial and time constraints.

The diversity of demands on clinicians has led to a proliferation of ideas—and associated measures—for the appraisal of parenting styles, parent–child interactional skills, and parents’ child-rearing knowledge. Some measures are rooted in clinician expertise, while others are grounded in contemporary developmental and parenting research. Often the measures attempt to deal with one or more fundamentals of parenting. As described by Hartup (1985) and Parke and Buriel (1998), essential elements of parenting include: developing a close parent–child relationship, helping the child acquire social and emotional skills, arranging safe havens for play and exploration, understanding developmental and temperament-related needs, and, when appropriate, sharing some aspects of decision-making with the child. Although mutual decision-making is often associated with negotiation that takes place between parents and their older children, reciprocal activity can apply even to infants and toddlers. Examples include taking into consideration an infant’s food preferences and accommodating a toddler’s desire to choose which clothes to wear (within limits, of course).

While a number of techniques include good ideas, few offer an appraisal of parenting that is brief, comprehensive, parent-sensitive, psychometrically sound, nonintrusive, and appropriate to child development. The Commonwealth Fund is supporting the development of such efforts, particularly for parents of infants and young children. This annotated bibliography is intended to provide clinicians, clinical researchers, and researchers interested in applied issues with information about those parenting skills measures that are available.

Despite the fact that parents ask for, or need, assistance in parenting for their children’s sake, the appraisal of parenting is truly a formidable task. Several cautionary messages about evaluating parents and parenting emerge from the literature:

1. *Blaming a parent (usually the mother) for all of a child’s ills—as numerous professionals have attempted to do in past decades—denies the child’s input into interactions, relationships, and even the child’s own development* (e.g., Bell, 1977; Lerner and Busch-Rossnagel, 1981). Moreover, child age, health, neurological status, developmental status, and temperament are important factors in eliciting responses from others in the immediate environment and, in turn, the responses of others that influence the child (Rothbart and Bates, 1998).
2. *Although the importance of parenting has been clearly acknowledged, no single attribute or experience can fully account for a child’s development.* Ample testimony is provided in Hartup and Parke and Buriel, as noted above, and by others (see Bornstein, 1995; Grusec and Kuczynski, 1997). As a practical corollary, there is no single parenting activity that has a privileged role in child development.

3. *Good parenting reflects developmental changes in that parents adapt their child-rearing to take into account the age-related skills of their child.* Good parenting also involves some level of parent–child reciprocity, such that even young children have the opportunity to control some aspect of their own lives (e.g., undisputed ownership of a few playthings).
4. *Most sociocultural groups share a core set of social values and norms, but parents also have beliefs and standards that are unique to their own ethnic and cultural backgrounds* (e.g., Garcia-Coll, Meyer, and Brillon, 1995). Again, as a practical matter, attempts to create a parenting blueprint that is insensitive to the diversity of cultural beliefs are bound to fail.

Ethical Concerns

A bibliography of this kind invariably prompts questions about the selection of measures for use in a clinical setting, the training of professional staff, and the choosing of safeguards to ensure the rights of parents and children. Additional issues arise over informed consent, privacy, access to information, and labeling.

Although this bibliography was not designed to address these ethical concerns, it is worth emphasizing that selection and use of measures to appraise parents, parenting, and children requires acute sensitivity to family, parent, and child rights. This is particularly important, since there is no widely accepted nosology of parenting or parent–child social relationship psychopathology that can be derived from existing parenting assessment approaches. To imply such would be a gross misuse of these clinical tools.

Specifics of the Bibliography

General orientation. The annotated bibliography primarily focuses on measures that have been peer reviewed and published in the clinical literature (e.g., pediatrics, pediatric psychology, nursing). This means that some techniques for parent or child assessments are not included in this bibliography. Exclusions cover some clinical measures that are in early stages of development, and as yet have not been peer reviewed in clinical journals. Another exclusion pertains to measures that are primarily research-oriented, albeit a few exceptions have been made. Where exceptions occur, a statement is made about the *value* of a particular idea or measure for clinical use.

Two types of exclusion deserve additional comment. First, most clinicians agree that the organization of household routines and schedules has a facilitative effect on child behavior, as does the provision of age-appropriate books, toys, and games. Variations of questionnaires that elicit information about everyday rules (e.g., Gralinski and Kopp, 1993) or measures that reflect the quality of the home environment (e.g., Bradley, 1995) could be useful in a pediatric setting *if they could meet the criteria of brevity, ease of use, and external validity*. To date, these criteria have not been met.

Second, findings clearly document that children's development may be compromised by parental psychopathology, particularly that related to maternal depression (e.g., Dinwiddie and Bucholz, 1993). A number of measures have been developed to screen for maternal mental health (e.g., Thompson, Harris, Lazarus, and Richards, 1998), albeit most have not been designed for clinic settings where both mothers and their children could be observed. However, there is value in alerting pediatricians about behaviors that might signal maternal depression or other psychopathology. Thus a few maternal mental health measures are included in the bibliography. Should suspicions arise, there must be immediate recourse for recommendations to mental health professionals.

The search procedure. Overall, a multistep procedure was used to identify relevant literature for the bibliography. The key goal was to identify clinically based—as opposed to research-oriented—measures that focused on parents, parenting, parental perceptions, parental responses to child temperament, and parent–child interactions. A first step involved creating a list of key words for searching Medline and Psychlit databases. Key words included the following: *pediatrics, parenting, health, behavior, assessment, measurement, perceptions, observations, competence, mothering, interactions, infants, child, and temperament*. Many key words were cross-referenced. Article abstracts relevant to pediatric or other clinical types of measures were compiled from the extensive database. Each article was then reviewed and summarized, and each measure was examined in terms of psychometric properties. The nature of the summaries, and their organization, was reviewed several times to determine an optimal format for reader usefulness. Lastly, informal interviews were held with Barbara Korsch, M.D., Toni Marcy, M.D., and Arthur H. Parmelee, M.D., for their insights about the kinds of parental appraisal approaches useful for pediatric clinic and office settings.

Format of entries. The measures are categorized by major focus: parent–child interaction, parent perceptions, parent concerns, parental health and well-being, quality of parenting, child temperament and behavior, and child development and assessment. Category identification was based on thematic issues found in the developmental, parenting, and pediatric literatures. Of note, the child development and assessment entries primarily refer to screening and criterion-referenced measures that may be useful in clinical settings. Note, too, that some measures include items that overlap categories.

The measures are annotated using a similar format. Each entry includes descriptive information obtained from the specific publication about goals for the measure, how the measure was incorporated into the particular research study, and related results. Because some studies focused only on psychometrics, there are no summary of findings (e.g., group comparisons).

This descriptive information is followed by objective information from the study, including the behavioral dimensions addressed in each measure. Samples that were used included demographics, the research setting, the specifics of the measure, and the psychometric characteristics. Most entries conclude with one or more comments. Although the entries share a common format, they differ in content detail and in length. The reasons for this vary: some articles involved complex designs or very detailed information about the parenting measure, and a few included two or more evaluative studies in the same article. The length of the entry is not indicative of quality.

Lastly, some entries refer to the same measure, which was reported in two or more studies. A notation (e.g., Study 1, 2, or 3) identifies a multiple entry. In general, multiple entries involved use of the measure with different samples of children, modified research designs (e.g., longitudinal, cross-sectional), or revised outcome variables. An additional overview comment is provided in instances that involve multiple entries.

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ANNOTATIONS

A. PARENT–CHILD INTERACTIONS

Identifying the nature of interactions between two or more individuals depends partly on the ages of the participants, the types of behaviors that are of interest (e.g., verbal, gestural, facial expressions), and the context of the interactions. These variations are evident in the annotations that make up this section: each represents different perspectives toward observations and the ways to record and systematize observations. There is a common theme, though: observations of parent–child interactions require objective coding systems and thoughtful interpretations.

Avant, K., 1979. Nursing diagnosis: Maternal attachment. *Advances in Nursing Science* 2:45–55.

This study attempted to confirm a step-by-step strategy for making clinical (nursing) diagnoses. A general framework was outlined and then applied to the diagnosis of maternal attachment.

<i>Dimensions:</i>	Codes are not clearly structured, but fall into the following general categories: visual contact, touch, affect, reciprocal interaction, and vocalizations. The categories were outlined from ideas found in the attachment literature, particularly those that related to bonding.
<i>Age Group:</i>	Mothers (mean age = 23 years) and their newborn infants
<i>Type of Sample:</i>	Mothers with no medical problems and who had vaginally delivered full-term, healthy infants
<i>Sample Size:</i>	15 mother-infant dyads
<i>Type of Article:</i>	Clinical research
<i>Psychometrics:</i>	Data were not analyzed because of the small sample size. Measures of central tendency and dispersion were included in the article.
<i>Setting:</i>	Hospital, during feeding session between mother and infant
<i>Type of Measure:</i>	20 one-minute observations with coding
<i>Comments:</i>	The reliability and validity of this observational framework were not examined statistically. The list of codes might be a useful reference for future studies.

Casey, P. H., R. H. Bradley, J. Y. Nelson, and S. A. Whaley, 1988. The clinical assessment of a child's social and physical environment during health visits. *Journal of Developmental Behavioral Pediatrics* 9:333–338. (Study 1)

The aim of this study was to establish the validity of the Pediatric Review and Observation of Children's Environmental Support and Stimulation (PROCESS). The Home Observation Measurement of Environment (HOME) inventory and the PROCESS were used to examine two aspects of the child's physical environment: 1) the organization of the environment, and 2) the quality of developmental stimulation. In addition to a maternal questionnaire, the PROCESS

involves observation of mother–child interactions during a routine pediatric visit; interactions were observed at several stages of the examination as the child experienced varying degrees of stress (i.e., progressing from having the child on the mother’s lap to having the child on the exam table). Mother–child interactions were also rated in a naturalistic free-play situation.

Results indicate that the PROCESS was significantly correlated with the HOME inventory as well as with the assessment of child–parent interaction, suggesting that the PROCESS taps environmental dimensions similar to those measured by the HOME. However, the PROCESS did not predict scores on a measure of developmental status (Bayley Scales of Infant Development) that was administered four to six months later. The authors suggest that the PROCESS might be useful as a screening tool to identify families at risk whose home environments warrant more detailed observations.

<i>Dimensions:</i>	The parent questionnaire includes items on parent–child interaction, father’s caregiving, mother’s responsiveness, mother’s perception of temperament, child sleep routines, feeding routines, and toys provided for the child at home. The clinical observation section of the PROCESS includes items about the mother’s interest in and attitude toward her child, responsiveness to and interaction with the child, degree of warmth exhibited, and conversation skills, as well as the cleanliness of the child.
<i>Age Group:</i>	2–18 months, with average age of 8 1/2 months
<i>Type of Sample:</i>	59 infants at routine health visits; 17 infants seen at a diagnostic clinic for growth abnormalities
<i>Sample Size:</i>	76 mother–infant pairs
<i>Type of Article:</i>	Clinical research
<i>Psychometrics:</i>	<i>Internal consistency:</i> for PROCESS, $r = .76$; Cohen’s $\kappa = .92$ <i>Concurrent validity:</i> moderate correlations with HOME (.35–.70); moderate correlations with parent–child interactions, $n=30$ (.69–.85)
<i>Setting:</i>	Pediatricians’ offices during visits; homes of participants
<i>Type of Measure:</i>	24-item questionnaire answered by parent and 20 observation items rated by pediatrician
<i>Comments:</i>	The results suggest that the PROCESS has sufficient concurrent validity for use in a pediatric setting with infants and toddlers.

Casey, P. H., K. Barrett, R. H. Bradley, and D. Spiker, 1993. Pediatric clinical assessment of mother–child interaction: Concurrent and predictive validity. *Developmental and Behavioral Pediatrics* 14:313–317. (Study 2)

The purpose of this research was to evaluate the concurrent and predictive validity of the PROCESS. As noted above, the PROCESS is a measure designed for pediatricians to assess mother–infant interactions. The association between the PROCESS and several other measures was also examined (e.g., HOME, additional measures of mother–child interactions [videotapes of laboratory interactions], and later measures of the child’s developmental and behavioral status [Bayley Scales of Infant Development, Stanford-Binet Intelligence Test, and Achenbach Child Behavior Checklist]). The HOME observations took place at 12 and 36 months, mother and

child interaction was measured at 30 months, the Bayley Scales of Infant Development were administered at 12 and 24 months, and the Stanford-Binet Intelligence Test and the Achenbach Child Behavior Checklist were administered at 36 months.

Findings revealed that clinical ratings of mother–child interactions at health visits, based on the PROCESS, were associated with both concurrent and later assessments of the home environment, and with later measures of mother–child interaction at 30 months, and intellectual performance and behavioral problems at 36 months.

- Dimensions:* The parent questionnaire includes items on parent–child interaction, father’s caregiving, maternal responsiveness, maternal perception of temperament, child sleep routines, feeding routines, toys provided for the child at home. The clinical observation section of the PROCESS includes items on mother’s interest in and attitude toward child, maternal responsiveness and interaction with child, maternal warmth, maternal conversation skills, and cleanliness of child.
- Age Group:* Mothers of 8-month-old infants
- Type of Sample:* Low-birth weight infants
- Sample Size:* 46 mother-infant dyads
- Type of Article:* Clinical research
- Psychometrics:* *Criterion-related validity:* correlation with HOME = .60 to .68; correlations with mother–child interactions at 30 months = .34 to .46; correlations with 36 months measures ranged from .35 to .54.
- Setting:* Clinic visits
- Type of Measure:* 20 observation items (Likert scale); rated by a pediatrician
- Comments:* The results of this study suggest that the PROCESS is a useful measure for pediatricians to use as a part of routine health maintenance for infants who were born preterm. The results support both the concurrent and predictive validity of the PROCESS. However, note that the generalizability of the findings may be limited due to the sample; also, a single observer (a pediatrician) collected data on all 46 infants.

Summary: The studies by Casey et al., suggest that the PROCESS has sufficient concurrent and predictive validity with both full-term and preterm infants. The PROCESS is a brief measure that can be administered by pediatricians as part of health maintenance visits. However, it is important to note that the full-term sample was studied with a cross-sectional research paradigm primarily with Caucasian families, whereas the study that involved preterm infants was longitudinal research that involved 56 percent African-American families. Both studies were based on samples that are relatively small, and both samples were drawn from families that reside in Arkansas. The generalizability of the findings should be evaluated with additional research.

Clark, G. M., and R. Seifer, 1985. Assessment of parents' interactions with their developmentally delayed infants. *Infant Mental Health Journal* 6:214–225.

This measure was used to evaluate the quality of interactions in child-parent dyads that were enrolled in an early-intervention program for children with developmental delays. A specific goal was to evaluate the efficacy of the intervention program.

<i>Dimensions:</i>	The scales examine intrusive, responsive, and general social behavior by the parent, and social and avoidant behavior by the child.
<i>Age Group:</i>	Designed for children with levels of developmental functioning between birth and 18 months
<i>Type of Sample:</i>	Children were part of an early-intervention program for children with developmental delays (e.g., Down syndrome, neurological impairments, multiple handicaps, high risks)
<i>Sample Size:</i>	Not stated
<i>Type of Article:</i>	Clinical
<i>Psychometrics:</i>	<i>Inter-rater reliability:</i> between three pairs of raters, scores were within one scale point 91 percent of the time; agreement for differentiation between clinical and nonclinical significance (1 or 2 vs. 3 or greater) was 89 percent
<i>Setting:</i>	Laboratory area with toys
<i>Type of Measure:</i>	Mothers were videotaped interacting with their infants for eight minutes. Tapes were rated with 10 rating scales (1 = poor to 5 = excellent). The subscales of this measure are focused on interaction style, social referencing, and assessment of context.
<i>Comments:</i>	This measure was intended for use by professionals who work in intervention programs as an addition to their current intervention protocols. Information about the external validity of the measure was not provided.

Hayes, E. E., 1983. Assessment of early mothering: A tool. *Issues in Health Care of Women* 6:361–366.

The purpose of this descriptive study was to summarize a nursing tool potentially useful for assessing the quality of mothering of newborn infants. Nurses observed mothering during feeding sessions and/or as the mother interacted with her infant in the obstetric ward 24 to 36 hours after delivery. A predetermined list of behaviors was used.

<i>Dimensions:</i>	The assessment includes items on how mothers hold, touch, and talk to the infant, whether she refers to features that make him/her unique, her responsiveness to the infant, and the infant's responsiveness to her.
<i>Age Group:</i>	Newborn infants and their mothers
<i>Type of Subjects:</i>	Not stated
<i>Sample Size:</i>	Not stated
<i>Type of Article:</i>	Clinical article

Psychometrics: Not stated

Setting: Hospital ward

Type of Measure: In a scheduled observation 24 to 36 hours after delivery, nurses responded to a 10-item open-ended questionnaire.

Comments: The authors note the assessment was helpful to nursing students. They often tended to be concerned about the physical needs of mother and child, while neglecting to observe the quality of mothering. No training was mentioned for those individuals who used the tool. No psychometric data were presented.

Kumar, R., and E. Hipwell, 1996. Development of a clinical rating scale to assess mother-infant interaction in a Psychiatric Mother and Baby Unit. *British Journal of Psychiatry* 169:18–26. (Study 1)

This article focused on the psychometric properties of the Bethlem Mother-Infant Interaction Scale (BMIS). The BMIS was intended to assist psychiatrists in forming opinions about the competency and motivation of mentally ill mothers to be consistent, adequate, and safe parents to newborns. In addition, the BMIS provides a means to assess the ability of the caregiver to care for the baby's daily needs and to establish a routine.

Findings focus on assessment of the reliability of the BMIS.

Dimensions: Subscales of the BMIS include eye contact, physical contact, vocal contact, and mother's mood. A dialogue score is computed from a summary of the first four subscales. There is a general routine subscale and an assessment of risk subscale. These two subscale scores and the dialogue score are computed to derive a total score. A separate subscale is used to define the baby's contribution to interactions.

Age Group: Caregivers of young infants (mean age = 5.4 weeks)

Type of Sample: Mentally ill mothers and their infants

Sample Size: 78 mother–infant dyads

Type of Article: Clinical research

Psychometrics: *Internal consistency:* .93 for complete scale
Inter-rater reliability: for subscales, ranged from .44 to .97, with the assessment of risk showing the least effective inter-rater reliability
Criterion-related validity: compared with Ainsworth Global Rating Scales, correlations for subscales ranged from .54 to .67
Predictive validity: unavailable

Setting: Psychiatric hospitals

Type of Measure: Observations made by nurses on a weekly basis; nurses made ratings (from 0 to 5) and narrative notes for a total of 35 items.

Comments: The entire instrument is appended to the article.

Hipwell, A. E., and R. Kumar, 1996. Maternal psychopathology and prediction of outcome based on mother-infant interaction ratings (BMIS). *British Journal of Psychiatry* 169:655–661. (Study 2)

The Bethlem Mother-Infant Interaction Scale was used to determine infants at risk for neglect and dysfunctional interactions with their severely mentally ill mothers. Mothers were rated on their ability to maintain contact with their infant, sensitivity/responsiveness, maintaining routines with their infants, and neglect. The goal was to identify mothers who could be considered adequate mothers at the time of discharge from the psychiatric unit.

Findings reveal that the nature of the mother's illness and the nurses' ratings of interactions during the second week after admission were the variables most strongly related to outcome at discharge. Mean discharge periods ranged from approximately two to 10 weeks, with mothers who had a diagnosis of schizophrenia having a significantly longer residential period than mothers who had unipolar or bipolar depression.

<i>Dimensions:</i>	Subscales of the BMIS include eye contact, physical contact, vocal contact, mother's mood, general routine, assessment of risk, and baby's contribution. A dialogue score is computed from a summary of the first four subscales, and a total score is computed from a summary of the six maternal subscales.
<i>Age Group:</i>	1–36 weeks at time of admission
<i>Type of Sample:</i>	Severely mentally ill mothers (unipolar depression, bipolar and manic disorders, and schizophrenia)
<i>Sample Size:</i>	78 mother-infant dyads
<i>Type of Article:</i>	Clinical research
<i>Psychometrics:</i>	Not stated
<i>Setting:</i>	Mother and baby unit of psychiatric ward
<i>Type of Measure:</i>	Observations made by nurses on a weekly basis; nurses made ratings (from 0 to 5) and narrative notes for a total of 35 items.
<i>Comments:</i>	The nurses that evaluated the mothers using the BMIS were also directly responsible for their care. As a part of that care, the nurses attended weekly meetings to discuss the mother's current condition with other staff members. Because of this relation, it is possible that the weekly BMIS scores were affected by the nurses' knowledge of the mothers' diagnoses and behavior during the week.

Summary: These studies are relatively unique in that they represent an attempt to deal with the measurement of parenting skills among a group of mentally ill mothers. The BMIS has interesting behavioral codes that may be well-suited to clinical settings in which professional staff have repeated opportunities to observe mothers and to spend time with them and their babies. Of importance, the data obtained in this study were generated after a short-term follow-up period. Thus, additional research is needed to determine the long-term value of the measure. The authors also note that "more data are needed from normative samples to determine what 'good-enough' mothering really means."

Lobar, S. L., and S. Phillips, 1992. A clinical assessment strategy for maternal acquaintance-attachment behaviors. *Issues in Comprehensive Pediatric Nursing* 15:249–259.

The purpose of this research was to discuss the Acquaintance-Attachment Assessment Strategy for Maternal Behaviors (AASMB), a measure designed for nurses caring for preterm or ill infants. The measure was designed to appraise maternal-infant attachment, particularly in hospital settings.

<i>Dimensions:</i>	Behaviors were divided into two subscales: opportunity items (noting the amount of time elapsed before the mother first saw her infant) and proximity-seeking items (on the part of the mother).
<i>Age Group:</i>	Not specified
<i>Type of Sample:</i>	Not stated
<i>Sample Size:</i>	Not stated
<i>Type of Article:</i>	Clinical article
<i>Psychometrics:</i>	Face validity established by “expert panel review”
<i>Setting:</i>	Nurses observe behavior during well-baby pediatric visits
<i>Type of Measure:</i>	After observations, nurses completed the 12-item AASMB, which includes ratings of behaviors; ratings range from 0 to 2 (0 = absence of behavior; 2 = the optimal expression of the behavior).
<i>Comments:</i>	This measure includes interesting items to judge proximity-seeking behaviors of mothers. Concepts in the instrument derive from the developmental literature (e.g., attachment). No psychometric or other data were reported.

Rubenstein, J. L. and C. Howes, 1979. Caregiver and infant behavior in day care and in homes. *Developmental Psychology* 15:1–24.

This research study compared caregivers in the home to caregivers in a day care setting using a categorization scheme that included verbal interaction, tactile contact, and sharing or mediating the use of toys. Data analyses focused on similarities and differences between infants reared in the home and in day care. The coding system is relevant to the bibliography.

<i>Dimensions:</i>	Dimensions include verbal interaction, categories of adult speech (labeling, praising, directions, imitation, and reprimands), non-caregiving touching (hugging and holding), looking, smiling, playing, and social mediation of inanimate objects (sharing, mutual play, praising, directions about use of objects, and intrusiveness).
<i>Age Group:</i>	17–20 months
<i>Type of Sample:</i>	Healthy, full-term infants
<i>Sample Size:</i>	30 children; 15 in the home and 15 in day care
<i>Type of Article:</i>	Research

Psychometrics: *Inter-rater reliability:* .94

Setting: Naturalistic; in the home or at day care

Type of Measure: Time-sampled observations (2.5 hr); investigators used checklists and narratives.

Comments: The results of this study suggest the coding system provided a useful and reliable tool for assessing caregiver-infant interaction. Though a lengthy time-sampling procedure is difficult to apply to clinical settings, the coding categories could be useful for identifying patterns of maternal scaffolding. Note the sample was relatively small and limited to full-term, healthy infants.

B. PARENTAL PERCEPTIONS, BELIEFS, AND FEELINGS ABOUT THE CHILD

Every individual has a system of beliefs and feelings about salient individuals and events. However, clinically oriented research that has focused on parents and children has revealed varying levels of acceptance of the *meaningfulness* of personal reports. In recent years there has been an increasing acceptance of, and sophistication about interpreting, parents' reports. The annotations listed below deal with parental perceptions and beliefs in a variety of ways. However, the underlying theme centers on understanding parents' perceptions and thinking as clues to parental needs and behaviors.

Blank, D. M., 1985. Development of the Infant Tenderness Scale. *Nursing Research* 34:211–216.

The aim of this study was to assess the psychometric properties of a measure for determining mothers' perceptions of "infant tenderness needs" called the Blank Infant Tenderness Scale (BITS). More specifically, the goal was to determine whether the scale could be used to determine if a mother's perceptions of her baby's needs are realistic.

The results indicated the BITS had high internal consistency and construct validity, and sufficient split-half reliability.

<i>Dimensions:</i>	These infant tenderness needs included both physiological and contact requirements.
<i>Age Group:</i>	Mothers of newborns
<i>Type of Sample:</i>	Healthy, low-income, mostly African-American mothers of infants
<i>Sample Size:</i>	65 mothers
<i>Type of Article:</i>	Research; measure validation
<i>Psychometrics:</i>	<i>Internal consistency:</i> overall measure: .89; subscales: physiological needs (.82), psychological contact requirements (.73); subscale intercorrelations: .79
<i>Settings:</i>	Postpartum clinic in hospital (low-income mothers)
<i>Type of Measure:</i>	Questionnaire (36 items) rated by mother
<i>Comments:</i>	Factor analysis and other techniques were used to estimate the construct validity of the BITS; the small sample size suggests caution in data interpretation. However, the emphasis on mothers' perceptions of infant behaviors (e.g., cuddling, smiling, crying) is valuable and could be explored further. The generalizability of the measure to mothers who belong to other ethnic groups remains to be determined.

Gross, D., and L. Rocissano, 1988. Maternal confidence in toddlerhood: Its measurement for clinical practice and research. *Nurse Practitioner* 13:19–29.

The purpose of this article was to evaluate the reliability and validity of the Toddler Care Questionnaire (TCQ), a measure derived from Bandura's self-efficacy theory. The goal of the TCQ was to examine maternal confidence in the ability to parent a toddler. Mothers low in confidence could be provided with relevant supports.

Findings revealed that major predictor variables included the extent of mothers' earlier experiences with child care, birth order, and maternal reports of toddler health problems and handicapping conditions. As a group, mothers of preterm infants who had cerebral palsy were less confident than other subgroups of mothers.

<i>Dimensions:</i>	Maternal confidence in the ability to parent a toddler
<i>Age Group:</i>	Caregivers of toddlers between 12 and 36 months, mean age = 23 months
<i>Type of Sample:</i>	Middle-class mothers
<i>Sample Size:</i>	50 mothers, all married at the time of the study
<i>Type of Article:</i>	Clinical research
<i>Psychometrics:</i>	<i>Internal consistency:</i> .95 <i>Test-retest reliability:</i> .87 after four weeks <i>Concurrent validity:</i> correlation of TCO with Beck Depression Inventory ($r = -.31, p < .03$); correlation of TCO with maternal education ($r = .30, p < .04$).
<i>Setting:</i>	Waiting room of pediatrician's office
<i>Type of Measure:</i>	37-item maternal self-administered questionnaire (Likert scale); completed in five minutes
<i>Comments:</i>	An important strength of this study pertains to the identification of groups of mothers who might benefit from early parenting interventions that are both supportive and informative.

Huxley, P., and R. Warner, 1993. Primary prevention of parenting dysfunction in high-risk cases. *American Journal of Orthopsychiatry* 63:582-588.

The authors utilized the Adult/Adolescent Parenting Inventory (AAPI) to assess parental attitudes toward child care. This measure was combined with other measures to assess the effectiveness of a parenting dysfunction prevention program.

Findings indicated that the group receiving intervention had decreases in the number of cases requiring child protective services compared to a standard care group.

<i>Dimensions:</i>	The AAPI includes four subareas: expectations (i.e., inappropriate expectations of children), empathy (i.e., inability to be empathically aware of children's needs), punishment (i.e., belief in the value of corporal punishment), and role (i.e., parents adopting dependent roles while children adopt caring roles).
<i>Age Group:</i>	Adolescent and adult parents referred during prenatal period or first three years of their child's life
<i>Type of Sample:</i>	At-risk parents referred to a program for the prevention of parenting dysfunction. Control families were matched by mother's age and the following (if possible): number of siblings, age of the referred child, and date of referral.

Sample Size: 20 treated families and 20 matched families that were referred but not treated

Type of Article: Research: program evaluation

Psychometrics: Not stated

Setting: Not stated

Type of Measure: A self-report measure; number of items not reported

Comments: The details of the AAPI were not discussed in this article.

McCarthy, P. L., D. V. Cicchetti, S. D. Sznajderman, B. C. Forsyth, M. A. Baron, H. D. Fink, N. Czarkowski, H. Bauchner, and K. Lustman-Findling, 1991. Demographic, clinical, and psychosocial predictors of the reliability of mothers' clinical judgments. *Pediatrics* 88:1041–1046.

The authors used the Acute Illness Observation Scales (AIOS) to assess whether demographic, clinical, and psychosocial data measured at the two-week well-baby visit predicted the reliability of mothers' judgments during acute illness episodes over the subsequent 32 months. Mothers were randomly assigned to the intervention and control groups.

Results indicated that a variety of demographic, clinical, and psychosocial factors had adverse effects on the reliability of maternal judgments, including higher levels of anxiety and concern about the baby, experiences with acute illnesses in other children, pregnancy complications, and residing in an inner city. Of note, the major proportion of variability in judgments was not explained by single sociodemographic variables such as marital status and level of maternal education.

Dimensions: Mothers' clinical judgments of infants' acute illness episodes

Age Group: Recruited at two-week well-child visits; followed over 32 months

Type of Sample: Mothers recruited from an inner-city clinic and a suburban private practice office

Sample Size: 183 mothers used the AIOS; 186 mothers used a three-point global assessment scale

Type of Article: Research

Psychometrics: No psychometric information was reported.

Setting: At location of acute illness and in pediatrician's office

Type of Measure: Six-item, three-point observation scale scored independently by both mothers and pediatricians

Comments: The demographic, clinical, and psychosocial information collected in this study contains interesting psychosocial items relevant to concerns and anxiety. Note that clinical information was heterogeneous and ranged from having previous children to having experienced pregnancy complications.

Perrin, J. M., W. E. MacLean, Jr., and E. C. Perrin, 1989. Parental perceptions of health status and psychologic adjustment of children with asthma. *Pediatrics* 83:26–30.

This study focused on the relation between severity of illness and psychological adjustment in children with asthma. The Health Resource Inventory (HRI) was used to assess parent reports of child psychological adjustment.

The authors note the results of their study were complex; however, an important finding was that children’s psychological adjustment was not associated with the severity of their illness.

<i>Dimensions:</i>	The HRI is a parental rating of the social competence or resilience of the child, with higher scores indicating better adjustment or competence.
<i>Age Group:</i>	5 to 16 years
<i>Type of Sample:</i>	Parents of children with asthma, mostly middle-class and Caucasian
<i>Sample Size:</i>	Complete data on 46 parents (out of a larger sample of 72)
<i>Type of Article:</i>	Clinical research
<i>Psychometrics:</i>	Not stated
<i>Setting:</i>	Mailed questionnaire
<i>Type of Measure:</i>	53-item questionnaire rated by parents on a five-point Likert scale of agreement (e.g., “expresses ideas willingly,” “copes well with failure”). Details of the measure were not provided in article.
<i>Comments:</i>	The Health Resources Inventory was originally described in Gesten, E., 1976, <i>Journal of Consulting and Clinical Psychology</i> . The fact that severity of illness was unrelated to adjustment suggests that <i>blanket-type</i> parenting interventions for parents of children who have chronic illnesses may not be efficacious.

Schaefer, E. S., and N. Bayley, 1963. Maternal behavior, child behavior, and their intercorrelations from infancy through adolescence. *Monographs of the Society for Research in Child Development* 28 (serial no. 87).

In this research monograph, the authors used data from the Berkeley Growth Study to explore the role of maternal behavior in development and child behavior. The study was longitudinal. An unnamed rating scale was used to assess maternal behavior toward her child. Each general dimension of interaction was rated separately and then combined with other ratings for an overall score. All rating scales were not provided, but an example follows below. The value of this study lies with the content ideas represented in the sample questions.

- Does this mother ignore or reject her child?
- Does she often comment on how much extra work or trouble the child is?
- Does she tend to “leave the situation” during the examination as though she is glad the baby is in someone else’s hands?
- Would she be willing to have others assume most of the responsibility for care of the child?
- Does the mother seem to know very little about the child?
- Does she tend to overlook the needs of the child?

- Does she give the impression that the child is not necessarily her principal interest?
- Does she fail to show much beyond polite interest in the child during the examination?

<i>Dimensions:</i>	Maternal behavior toward her child
<i>Age Group:</i>	Not specified for this rating scale
<i>Type of Sample:</i>	Full-term Caucasian infants
<i>Sample Size:</i>	54 children
<i>Type of Article:</i>	Research
<i>Psychometrics:</i>	<i>Inter-rater reliability:</i> .82 during early observations; .85 during later observations
<i>Setting:</i>	Laboratory: three judges rate caregivers on the basis of medical records and Berkeley Growth Data.
<i>Type of Measure:</i>	Rating scale; specific scales not provided
<i>Comment:</i>	A number of items represented in this could be useful for observations made of mothers' interest, knowledge, and caring demonstrated to their infants and young children, within a clinical setting. Additional study is warranted.

C. PARENTAL HEALTH AND WELL-BEING

A growing body of research has shown that effective parenting in part depends on parents who are broadly defined as physically and emotionally healthy. However, identifying the emotional well-being of an individual can be challenging, and determining the boundaries of the emotional well-being of parents is equally challenging. Ethical issues abound for parents and for children—particularly when a child’s behavioral and developmental well-being is at issue. The annotations listed below provide interesting examples of measuring risks to the child when a parent is not emotionally or physically healthy.

Louis, A., J. Condon, R. Shute, and R. Elzinga, 1997. The development of the Louis MACRO (Mother and Child Risk Observation) forms: Assessing parent-infant-child risk in the presence of maternal mental illness. *Child Abuse and Neglect* 21:589–606.

The purpose of this study was to determine the psychometric properties of the Louis Mother and Child Risk Observations (MACRO). The measure assessed risks to the child as a function of maternal mental illness. Face validity was obtained for the measure by asking pediatricians, social workers, and other professionals to rate items. Items that were retained had good agreement among professionals. The resulting measure involved weekly nurse ratings.

<i>Dimensions:</i>	Infants: ratings for mothers include infant safety, care (i.e., nourishment and cleanliness), and emotional responsiveness. Toddlers: care, parenting style (i.e., parental guidance, teaching, limit-setting), and emotional responsiveness. Ratings for children include adaptability, absence of irritability, and responsiveness. Mothers are also rated on mental state (i.e., indications of psychosis, depression, anxiety, and somatization). A single item taps social support.
<i>Age Group:</i>	Birth–4 years
<i>Type of Subjects:</i>	Children of mentally ill mothers
<i>Sample Size:</i>	MACRO1: 110 mother-infant dyads; MACRO2: 85 mother-toddler dyads
<i>Type of Article:</i>	Research
<i>Psychometrics:</i>	<i>Internal consistency:</i> MACRO1: .96; MACRO2: .97; alphas for subscales: MACRO1: .79–.95; MACRO2: .79–.95 <i>Inter-rater reliability:</i> range stated for subscales—MACRO1: .81–.93; MACRO2: .79–.90 <i>Test-retest reliability:</i> MACRO1: .71–.93; MACRO2: .87–.95
<i>Setting:</i>	A small South Australian inpatient facility (maximum 6 families) for mentally ill mothers and their children.
<i>Type of Measure:</i>	Observer-rated checklists for parent–child interaction (MACRO1 for infants under one year; MACRO2 for infants from one to four years). Both forms include 10 items on mother and 10 items on child, plus 10 items on mother’s mental state, rated on a five-point Likert scale.
<i>Comments:</i>	The content of the MACRO forms were derived from an impressive multidimensional theoretical framework, which is detailed and illustrated in

the article. Moreover, in devising the MACRO, the authors were guided by several questions: How does mental illness affect the parent–child relationship? What mechanisms are involved when parental ill health adversely affects children? What influences stem from acute affects and which stem from chronic conditions? Which parents are more, or less, vulnerable? A unique feature of the article is the inclusion of three case vignettes that reveal how the MACRO was used in the clinical setting.

Milner, J. S., R. G. Gold, C. Ayoub, and M. Jacewitz, 1984. Predictive validity of the Child Abuse Potential Inventory. *Journal of Consulting and Clinical Psychology* 52:879–884. (Study 1)

The purpose of this study was to evaluate the predictive validity of the Child Abuse Potential (CAP) inventory by comparing the CAP abuse scores and subsequent reports of abuse, neglect, or failure to thrive. All of the parents subsequently reported for abuse had scored above the investigators' cutoff score for risk of abuse on the CAP, though the majority of parents scoring above the cutoff did not subsequently abuse their children.

Findings indicated a modest correlation between abuse scores and later confirmed reports of abuse. The study did not use a control group; all participants received treatment throughout the study.

<i>Dimensions:</i>	Child abuse scale with factors on distress, unhappiness, negative concept, child with problems, problems for family, rigidity, loneliness
<i>Age Group:</i>	Under 6 months at entry into the program
<i>Type of Sample:</i>	Parents identified as "at risk" for later abuse; parents were participating in an intervention program during the study.
<i>Sample Size:</i>	200 parents
<i>Type of Article:</i>	Research
<i>Psychometrics:</i>	<i>Internal consistency:</i> .92 to .96 for a variety of control, "at risk," neglect, and abuse groups (cited from Milner, 1980) <i>Validity:</i> 94 percent correct classification into abuse/nonabuse categories (based on current level of abuse)
<i>Setting:</i>	Hospital (including pediatric unit)
<i>Type of Measure:</i>	160-item questionnaire (agree/disagree with each item) that includes an abuse scale consisting of 77 items that are randomly distributed throughout the questionnaire and a Lie Scale (used to eliminate questionable protocols) consisting of 18 items.
<i>Comments:</i>	This is one of the few studies that has a longitudinal component.

Milner, J. S., R. G. Gold, R. C. Wemberly, 1986. Prediction and explanation of child abuse: Cross-validation of the Child Abuse Potential Inventory. *Journal of Consulting and Clinical Psychology* 54:865–866. (Study 2)

This study provided cross-validation data for the CAP by determining classification rates for physical child abusers and for a matched control group. The abuse scale correctly identified 82.7 percent of the abusers and 88.2 percent of the control subjects. These rates were improved by using the instrument's Lie Scale to eliminate questionable protocols; of the valid protocols, 89.2 percent of abusers and 96.3 percent of the control subjects were correctly identified. Six factors were obtained with a factor analysis.

<i>Dimensions:</i>	Factors identified in this study included distress, rigidity, unhappiness, problems with child and self, problems with family, and problems from others.
<i>Age Group:</i>	Parents in the abuse group: M = 26.8 years; in control group: 28.4 years.
<i>Type of Sample:</i>	Parents identified as active, untreated, physical child abusers obtained from a preventive service program and from departments of social services; matched with individuals receiving some form of agency assistance.
<i>Sample Size:</i>	220 parents
<i>Type of Article:</i>	Research; measure validation
<i>Psychometrics:</i>	<i>Predictive validity:</i> overall 85.4 percent correct classification into abuse/non-abuse categories; with use of Lie Scale, 93.2 percent
<i>Setting:</i>	Protective service agencies
<i>Type of Measure:</i>	160-item questionnaire (agree/disagree with each item) that includes an abuse scale consisting of 77 items that are randomly distributed throughout the questionnaire and a Lie Scale consisting of 18 items

Nehring, W. M., and F. L. Cohen, 1995. The development of an instrument to measure the effects of a parent's chronic illness on parenting tasks. *Issues in Comprehensive Pediatric Nursing* 18:111–123.

The goal of the article was to assess reliability and validity of the Parenting Tasks Index (PTI). The authors used the Parenting Tasks Index to assess the specific parenting tasks that were affected by a parent's chronic illness or disability. Criterion-related validity was assessed by using the Parenting Sense of Competence Scale (PSOC), which is a measure of parents' ability to meet situational demands in parenting. Four groups of mothers were assessed in this study: (1) mothers who had narcolepsy, whose oldest child was between one and 10 years, (2) mothers without chronic illness, with a child aged as above, (3) mothers with narcolepsy, whose oldest child was age 11 to 21 and (4) mothers without chronic illness, with a child aged as above.

Findings indicated that more than 50 percent of mothers with narcolepsy reported moderate to severe difficulty in meeting parenting demands.

<i>Dimensions:</i>	Demographic data plus items on discipline and limit-setting, housework, outings, helping with child's homework, child sleep schedule, school
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activities, playing with child, providing meals, visiting friends or extended family, hosting parties, providing transportation, and family vacations.

- Age Group:* Mothers of children ages 1–10 and mothers of children ages 11–21
- Type of Sample:* Mothers with narcolepsy
- Sample Size:* 40 children, 10 in each group
- Type of Article:* Clinical research
- Psychometrics:* *Content validity:* established by nurses and child development experts
Criterion-related validity (with PSOC): assessed with different subscales; over all subscales, ranged from $-.61$ to $.21$, none were statistically significant; therefore, two measures were not measuring the same constructs.
Test-retest reliability (3 months): ranged from $.88$ for narcoleptic child group; $.62$ for normal child group; $.75$ for narcoleptic adolescent group; $.86$ for normal adolescent group. Statistically significant ($p < .01$) only for normal adolescent group and the narcoleptic child group.
Internal consistency: Cronbach's alpha for four groups ranged from $.94$ to $.96$ (time 1) and $.93$ to $.96$ (time 2).
- Setting:* Mail—self-report measures
- Type of Measure:* Self-report rating scale ranging from 0 (no difficulty) to 3 (severe difficulty); 40 items for childhood and 32 items for adolescence.
- Comments:* The results of this study indicate that the PTI was a fairly reliable measure, with homogeneous items. However, it clearly did not measure the same thing as the PSOC. Of note, mothers with narcolepsy appeared to have the most difficulty with demands that are related to time management planning, schedules, and discipline. Whether similar challenges exist for mothers with other forms of chronic illness is not known.

Ostberg, M., 1998. Parental stress, psychosocial problems, and responsiveness in help-seeking parents with small (2–45 months old) children. *Acta Paediatrica* 87:69–76.

The author used the Swedish Parenting Stress Index (S-PSI), based on the Parent Domain of an American instrument, the Parenting Stress Index (PSI), to examine the stress levels of parents in a clinical sample and parents in a comparison sample.

Findings indicated an association between higher stress and parental unresponsiveness to the child. Mothers in the clinical sample reported a greater sense of incompetence, more health problems, and more social isolation than mothers in the comparison group.

- Dimensions:* The S-PSI includes five subscales (Incompetence, Role Restriction, Social Isolation, Spousal Problems, and Health Problems) tapping parents' daily management of stress.
- Age Group:* Mothers and fathers of children ages 2 to 45 months; comparison group: ages 6 to 36 months
- Type of Sample:* Parents seeking help for child behavior problems or for parents' problems at Specialist Child Health Centers in Sweden (medical facilities with the

aims of early intervention and assessment). Comparison mothers were randomly selected from a national population registry.

- Sample Size:* Intervention group: 75 mothers, 65 fathers; Comparison group: 1,081 mothers
- Type of Article:* Clinical sample
- Psychometrics:* "High internal consistency for total scale and subscales"; "good stability over a mean of 30 days." No values provided.
Inter-rater reliability: this study, Cohen's $\kappa = .93$
- Setting:* Intervention sample: Given to mothers and fathers at first home visit.
Comparison sample: Mailed to mothers.
- Type of Measure:* 34-item questionnaire using a five-point Likert scale: parents rate degree of agreement with statements
- Comments:* One purpose of this study was to demonstrate the discriminant and construct validity of the S-PSI; however, no psychometric statistics were provided in this article. This is one of the few studies that includes some data on fathers' stress, and comparisons of mothers' versus fathers' stress levels.

Summary: The available data on the CAP inventory indicates usefulness for classification of child abusers. It should be noted that most research with the CAP inventory took place more than a decade ago.

D. QUALITY OF PARENTING

There is general agreement that the quality of parenting involves behaviors such as recognition of, and sensitivity to, individual child characteristics; emotional warmth directed to the child; contingent responses to child needs; and provision of a safe and interesting environment for exploration and learning. The challenge for researchers and clinicians has been to devise measures that accurately identify these kinds of behaviors. The annotations in this section reveal clinically oriented measures designed to appraise "quality" in parenting.

Bavolek, S. J., D. F. Kline, J. A. McLaughlin, and P. R. Publicover, 1979. Primary prevention of child abuse and neglect: Identification of high-risk adolescents. *Child Abuse and Neglect* 3:1071–1080.

The purpose of this study was to test the psychometric properties, including content validity, of the Parenting Inventory, a questionnaire designed to assess adolescents' attitudes toward parenting and child-rearing practices. Experts determined the items to be valid in terms of content validity (through expert ratings), and a factor analysis confirmed the structure. The questionnaire was then given to adolescents who were previously identified as abused and to a non-abused control group. The goal of the questionnaire was to identify adolescents who had attitudes about child rearing that might be indicative of future abusive behaviors in the adolescent toward his/her own children.

<i>Dimensions:</i>	Inappropriate parental expectations of the child, inability of parent to be empathically aware of the child's needs, strong parental belief in the value of punishment, and role reversal (i.e., parent looks to child for satisfaction of parent's emotional needs)
<i>Age Group:</i>	Adolescents, grades 10 through 12
<i>Type of Sample:</i>	Mostly Caucasian sample from Utah and rural communities influenced by the Church of Jesus Christ of the Latter-Day Saints
<i>Sample Size:</i>	3,000 adolescents
<i>Type of Article:</i>	Research; measure validation
<i>Psychometrics:</i>	<i>Internal consistency:</i> subscales: inappropriate parental expectations of the child (.70), inability of the parent to be empathically aware of the child's needs (.75), strong parental beliefs in the value of punishment (.81), role reversal (.82) <i>Test-retest reliability:</i> after one week, .76 for overall scale
<i>Setting:</i>	High schools in Utah and Idaho
<i>Type of Measure:</i>	64-item Likert scale questionnaire rated by parent.
<i>Comments:</i>	One of the most interesting findings reported in the study concerned the construct related to empathic awareness of child needs. The authors note that this construct "had the greatest discriminatory capability." This finding has interesting implications for parent education programs, particularly geared to improving sensitivity toward children.

Mrazek, D. A., P. Mrazek, and M. Klinnert, 1995. Clinical assessment of parenting. *Journal of the American Academy of Child and Adolescent Psychiatry* 34:272–282.

The authors describe the Parenting Risk Scale (PRS) and five key dimensions of parenting, as well as a method for rating parent difficulties using a semistructured interview. The PRS was developed with two cohorts of young children, a group who were at risk for asthma and a group of children without risk for asthma. In this article, the authors report the reliability and validity of the PRS.

<i>Dimensions:</i>	The PRS assesses five dimensions of parenting: emotional availability, control (i.e., degree of flexibility and permission), psychiatric disturbance, knowledge base (i.e., developmental knowledge and basic child care principles), and commitment (i.e., adequate prioritization of child care responsibilities).
<i>Age Group:</i>	Caregivers of children
<i>Type of Article:</i>	Research; measure validation
<i>Psychometrics:</i>	<i>Inter-rater reliability:</i> reliability of parenting ratings was acceptable with appropriate training <i>Concurrent validity:</i> excellent <i>Predictive validity:</i> excellent <i>Stability:</i> high stability was documented
<i>Setting:</i>	Clinical settings
<i>Type of Measure:</i>	60–90 minute interview of parents (abbreviated 30-minute format available) using the Stress and Coping interview, a semi-structured interview in which the interviewer aims to obtain sufficient information to rate parents on seven Likert scales in the areas of marital functioning, severity of recent stressors, and level of maternal coping. After the interview, parents are categorized by the PRS as Parenting Difficulties (parents with at least one problem in one of the five parenting dimensions), Concerns about Parenting (some concern about one of the five dimensions), and Adequate Parenting (parents appropriate in all dimensions).
<i>Comments:</i>	Interesting constructs and conceptual categories. Additional specifics would be helpful for clinicians wishing to use the measure.

Murphy, E., C. R. Brewin, and L. Silka, 1997. The assessment of parenting using the Parental Bonding Instrument: Two or three factors? *Psychological Medicine* 27:333–342.

Murphy, et al., examined the factor structure of the Parental Bonding Instrument (PBI) to determine whether two or three factors would be most representative of the PBI's underlying structure. The PBI is a measure of children's reports of their parents' behavior toward them. Three factors (care, denial of psychological autonomy, and encouragement of behavioral freedom) were found to be satisfactory, seem to increase the accuracy of prediction, and allow for a greater understanding of underlying processes. The authors suggest that with modifications, the PBI could be used to effectively measure these factors.

Dimensions: Care, denial of psychological autonomy, and encouragement of behavioral freedom.

Age Group: U.S. mean: 20.2 years; U.K. means: 17.7 years, 20.5 years

Type of Sample: High school, college, and medical school students

Sample Size: 583 U.S. and 236 U.K. students

Type of Article: Research

Psychometrics: *Internal consistency:* for scales, .775 to .921

Setting: Not stated

Type of Measure: 25-item Likert self-report questionnaire

Comment: Extensive discussion of factor structure is included in the article.

Parker, G., J. Roussos, D. Hadzi-Pavlovic, P. Mitchell, K. Wilhelm, and M. P. Austin, 1997. The development of a refined measure of dysfunctional parenting and assessment of its relevance in patients with affective disorders. *Psychological Medicine* 27:1193–1203.

The authors used the PBI scales to develop a new measure, the Measure of Parenting Style (MOPS), that would more directly address parenting behaviors that put a child at risk for later psychopathology. The instrument was developed by administering it to depressed adults, who reported their experiences with their own parents in responding to questionnaire items.

Dimensions: Parental indifference, over-control, and parental abuse.

Age Group: 17–72 years (M = 40.7)

Type of Sample: Depressed adult patients at a psychiatric inpatient mood-disorder unit.

Sample Size: 152 patients (65% female)

Type of Article: Research; measure validation

Psychometrics: *Internal consistency:* for scales, .76 to .93

Setting: Clinical settings

Type of Measure: 15-item self-report questionnaire (Likert scale)

Comments: A number of items in the scale showed markedly skewed distributions (e.g., 42% with zero scores for maternal indifference). If scores are skewed in a clinical population, how relevant is the scale to a non-clinical sample?

Seideman, R. Y., R. Williams, P. Burns, S. Jacobson, F. Weatherby, and M. Primeaux, 1994. Culture sensitivity in assessing urban Native American parenting. *Public Health Nursing* 11:98–103.

The purpose of this study was to test the effectiveness of the HOME and the Nursing Child Assessment Teaching Scale (NCATS) with urban Native American mothers and their children. The HOME was used to assess the quantity and quality of social, emotional, and cognitive support available to children in their homes, and the NCATS was used to assess parent–child interactions during a teaching session.

Findings suggested that Native American mothers were unlikely to structure and intervene in their children's activities and likely to use nonverbal parenting techniques (i.e., parents emphasized their children's attention and observation over verbal communication).

<i>Dimensions:</i>	The NCATS includes dimensions of parents' responsivity to child's cues, response to child's distress, social and emotional growth fostering, and cognitive growth fostering. Child dimensions include clarity of cues to parent and responsiveness to caregiver.
<i>Age Group:</i>	3–36 months
<i>Type of Sample:</i>	Native American children
<i>Sample Size:</i>	63 children
<i>Type of Article:</i>	Research; measure validation
<i>Psychometrics:</i>	Not stated
<i>Setting:</i>	Home visits
<i>Type of Measure:</i>	Observations made by trained observers during home visits; some questions asked of caregivers. Number of items was not stated.
<i>Comments:</i>	This is one of the few studies that has focused on measurement of Native American parenting practices. The authors concluded that the two instruments were appropriate measures to use with Native American children and their families. Both positive and negative aspects of Native American parenting were identified.

E. PARENTAL CONCERNS

The annotations in this section deal with a variety of general and specific concerns expressed by parents, including sleep patterns, excessive crying, rates of developmental change, vulnerabilities due to illness, and more. A variety of approaches has been used by clinicians to gauge these differing concerns.

Dulcan, M. K., E. J. Costello, A. J. Costell, C. Edelbrock, D. Brent, and S. Janiszewski, 1990. The pediatrician as gatekeeper to mental health care for children: Do parents' concerns open the gate? *Journal of the American Academy of Child and Adolescent Psychiatry* 29:453–458.

The authors used data from a study of children seen for pediatric care (HMO setting) to examine the factors that contribute to pediatric identification of child psychiatric problems, and referrals to a mental health specialist. An interview was used to elicit parent concerns about child problems and to identify whether or not parents had sought additional consultations for child problems.

Findings indicated that the likelihood that pediatricians identified children's behavioral problems was higher when parent concerns were taken into account. Parent concerns were unrelated to SES, child's gender, age, and presence of father in the family. Parent concerns *were* associated with a *Diagnostic and Statistical Manual of Mental Disorders, Third Edition* (DSM-III) diagnosis of child mental health problems, the presence of family history of mental health problems, and with higher scores on a measure of maternal psychiatric distress. Pediatricians overlooked emotional and behavioral problems in 83 percent of a group of 52 children who had received independent diagnoses of clinical problems. Thus, parents emerged from these analyses as crucial informants to pediatricians about their child's emotional and behavioral problems.

<i>Dimensions:</i>	Parent concerns about child problems, parent requests for referrals to other professionals about child problems
<i>Age Group:</i>	7 to 11 years
<i>Type of Sample:</i>	A total sample of 300 comprised all children scoring above the 90th percentile on the Achenbach and Edelbrock CBCL (n=126) and a randomly selected subsample of those children scoring at or below the 90th percentile (174).
<i>Sample Size:</i>	300 children
<i>Type of Article:</i>	Clinical and research article
<i>Psychometrics:</i>	Not stated in article
<i>Setting:</i>	The HMO was the site of the parent interview, and an additional home visit was scheduled to obtain additional information about child and parent functioning.
<i>Type of Measure:</i>	Open-ended interviews of varying lengths with parent conducted by pediatrician
<i>Comments:</i>	The authors suggest that other studies lend evidence to their findings about pediatricians' ambivalence about identifying and stigmatizing children with emotional and behavioral problems. More recent reports indicate that an

HMO practice may not afford adequate time to interview parents about child problems. In terms of the comparison group, almost one-quarter of the nonclinical sample refused a home visit. Therefore, sample selectivity may be a factor in the study's findings.

Forsyth, B. W. C., and P. F. Canny, 1991. Perceptions of vulnerability 3 1/2 years after problems of feeding and crying behavior in early infancy. *Pediatrics* 88:757-763.

The goal of this research was to determine if children who have problems with feeding and crying behavior during infancy are later perceived by their parents as more vulnerable. The Child Vulnerability Scale (CVS) was used to assess parents' perceptions of their children's vulnerability. The Richman Behavior Checklist was used to measure child behavior problems, and the Cohen Child Personality Scale was used to measure child personality. Additional information about the child's health and use of health care was also collected.

Findings reveal that perception of greater vulnerability on the CVS was significantly associated with several sociodemographic characteristics. Mothers who were younger, single, and had lower incomes tended to view their children as more vulnerable. Children who had feeding and crying problems in infancy and had a change in formula were significantly more likely at 3.5 years to be viewed as more vulnerable (problems in infancy without change of formula were not associated with later perceived vulnerability). The authors suggest that for pediatricians, an approach to feeding and crying problems which acknowledges parent concerns without suggesting that the child is allergic or has other "intrinsic abnormalities" may decrease parental perceptions of vulnerability.

<i>Dimensions:</i>	The CVS measures general concerns about health and other specific concerns, with items on parent perceptions of how often child gets sick, needs to stay indoors, has accidents, does not eat well or look well, and has stomach pains, as well as how often parent thinks about calling the doctor.
<i>Age Group:</i>	Children were followed from birth to 3.5 years (CVS administered at age 3)
<i>Type of Sample:</i>	Mothers enrolled in postpartum period; 95 percent Caucasian
<i>Sample Size:</i>	379 infants
<i>Type of Article:</i>	Research on clinical population
<i>Psychometrics:</i>	The validity of this measure was examined by comparing the CVS with parental reports. Children that were identified as vulnerable on the CVS had more visits to the pediatrician in the previous year and their parents phoned the pediatrician more frequently than children who were not considered vulnerable.
<i>Setting:</i>	Mothers were interviewed postpartum prior to their discharge from the hospital, then interviewed by phone when infants were 4 months old, then completed mailed questionnaires at home when children were age 3.5.
<i>Type of Measure:</i>	10-item questionnaire; the mother is asked to check one of three statements that best describes her child. The ratings represent degree of "average-ness" (e.g., my child is abnormally susceptible to an illness).

Comments: Other than criterion validity, no other validity data were provided about the CVS. As the study used parent report data on perceptions of child health, it does not “differentiate between those children who were truly ill and vulnerable and those who were well children” who were perceived to be vulnerable. An understanding of the factors that distinguish the two groups would be essential for planning parenting interventions. Notwithstanding, the research again points to the value of parents’ perceptions in young children’s *outcomes*.

Glascoc, F. P., W. E. MacLean, and W. L. Stone, 1991. The importance of parents’ concerns about their child’s behavior. *Clinical Pediatrics* 30:8–11. (Study 1)

This study piloted a parent interview (later standardized and named the Parents’ Evaluations of Developmental Status, or PEDS; see entries below), with the aim of assessing the utility of parents’ concerns in identifying significant child behavior problems. Parent concerns were elicited with an interview comprising open-ended questions about child learning and development; parent responses were categorized by area of development. Only data on concerns about child behavior were used for this study. The Eyberg Child Behavioral Inventory (ECBI) was used to measure child conduct problems.

Results revealed that 70 percent of those children with conduct problems had parents who expressed concern about their children; 73 percent of parents who did not express concern had children without conduct problems; and of the parents expressing concerns, almost half (41%) had children with conduct problems. Of the parents without concerns, 90 percent had children without serious conduct problems. The authors interpret these findings as suggesting that parents of most children with behavior problems will voice their concerns to pediatricians, but that additional assessment will be needed to identify those with valid concerns. There are a significant number of children with behavior problems, however, whose parents do not voice concerns, and may not be identified without standardized screening methods.

Dimensions: Parent concerns about child learning and development, with probes in domains of behavior control, gross and fine motor, receptive and expressive language, articulation, personal-adaptive, social-affective, school skills, medical/sensory status, and/or global development.

Age Group: 24–78 months

Type of Sample: Children were included if they were not acutely ill

Sample Size: 45 parent–child dyads

Type of Article: Clinical

Psychometrics: *Concurrent validity:* sensitivity = 70 percent; specificity = 73 percent

Setting: Pediatric clinics

Type of Measure: Open-ended interview with parent, followed by structured probes in specific child development domains ECBI: List of 36 common behavior problems; parents report whether or not they have encountered each behavior.

Comments: The ECBI items are listed in the article.

Glascoe, F. P., 1991. Can clinical judgment detect children with speech-language problems? *Pediatrics* 87:317–322. (Study 2)

This study further tested the Parents' Evaluations of Developmental Status (PEDS), with the aim of assessing the utility of parental concerns in identifying children with speech-language problems. Parental concerns were measured with the PEDS, an interview comprising open-ended questions about child learning and development; parent responses were categorized by area of development. Only data on concerns about their child's articulation and expressive language skills were used in this study. Children were also assessed with the Battelle Developmental Inventory Screen and Articulation Screening Tests.

Findings revealed that of children with language problems, 72 percent of their parents had concerns. Of the children with negative screening results, 83 percent had parents who were *without* concerns. Of the children with speech-language problems, 17 percent had parents without concerns, and of the children without speech-language problems, 28 percent had parents who were concerned. The authors note that PEDS may be useful as a prescreening procedure, but that parent concerns must be confirmed by standardized screening instruments.

<i>Dimensions:</i>	Parent concerns about child learning and development, with probes in domains of behavior control, gross and fine motor, receptive and expressive language, articulation, personal-adaptive, social-affective, school skills, medical/sensory status, and/or global development.
<i>Age Group:</i>	6–77 months
<i>Type of Sample:</i>	Children were included if they were not acutely ill
<i>Sample Size:</i>	157 parent–child dyads
<i>Type of Article:</i>	Clinical
<i>Psychometrics:</i>	<i>Test-retest reliability:</i> 88 percent, time period not stated <i>Inter-rater agreement:</i> 88 percent (cited from Glascoe, Altemeier, and MacLean, 1989; Glascoe, 1988; Glascoe, Altemeier, MacLean, 1988)
<i>Setting:</i>	Pediatric clinics and private pediatric offices
<i>Type of Measure:</i>	One open-ended question (“Please tell me any concerns about how your child is learning, developing, and behaving”) followed by probes in specific child development domains (“Do you have any concerns about how he/she understands what you say?...talks?...makes speech sounds?...uses hands and fingers to do things?...uses arms and legs?...behaves?...gets along with others?...is learning to do things for himself/herself?...is learning preschool and school skills?”). Administration time is approximately three minutes.
<i>Comments:</i>	This article did not provide a psychometric analysis of the PEDS, but the data are available elsewhere. Of importance, the rate of parent concerns about speech-language problems are largely in accord with diagnostic findings.

Glascoe, F. P., 1994. It's not what it seems: The relationship between parents' concerns and children with global delays. *Clinical Pediatrics* 94:292–296. (Study 3)

The purpose of this study was to determine if pediatricians should screen broadly or ask domain-specific questions about child behavior with respect to global delays. The authors first evaluated children with well-known psychometric instruments to identify developmental delays. Then they utilized the Parents' Evaluations of Developmental Status (PEDS) to identify parental concerns about their children's development.

Results indicated that 18 of 95 children were found to have global delays; however only five parents of these children identified global delays. In contrast, parents' concerns about their children's behavior or their concerns about speech were symptomatic of global delays. The author notes that clinicians might overlook children's global delays if they rely solely on parents' concerns about global delays. The study's findings underscore the importance for clinicians to screen more broadly when parents raise concerns about their children's behavior or speech.

<i>Dimensions:</i>	Parent concerns about child learning and development, with probes in domains of behavior control, gross and fine motor, receptive and expressive language, articulation, personal-adaptive, social-affective, school skills, medical/sensory status, and/or global development.
<i>Age Group:</i>	3–81 months, with a mean age of 38.8 months
<i>Type of Sample:</i>	Children from five day-care centers
<i>Sample Size:</i>	95 parents (mostly mothers) and their children; diverse ethnic and SES representation
<i>Type of Article:</i>	Research
<i>Psychometrics:</i>	Not stated
<i>Setting:</i>	Not stated
<i>Type of Measure:</i>	One open-ended question ("Please tell me any concerns about how your child is learning, developing, and behaving") followed by probes in specific child development domains ("Do you have any concerns about how he/she understands what you say?...talks?...makes speech sounds?...uses hands and fingers to do things?...uses arms and legs?...behaves?...gets along with others?...is learning to do things for himself/herself?...is learning preschool and school skills?"). Administration time is approximately three minutes.
<i>Comments:</i>	This article did not include a psychometric analysis of the PEDS, but data are available elsewhere.

Glascoe, F. P., 1997. Parents' concerns about children's development: Prescreening technique or screening test? *Pediatrics* 99:522–528. (Study 4)

Glascoe attempted to determine whether parents' concerns could be utilized as a screening measure or if concerns should be used to isolate a subset of children who should be screened. The Parents' Evaluations of Developmental Status (PEDS) was used to elicit parental concerns. The results suggest that pediatricians can make reasonably focused referrals based on parental concerns. When

parents had concerns but their child did not have a disability, the child was more likely to show subtle delays on developmental measures than children whose parents had no concerns.

- Dimensions:* Parent concerns about child learning and development, with probes in domains of behavior control, gross and fine motor, receptive and expressive language, articulation, personal-adaptive, social-affective, school skills, medical/sensory status, and/or global development.
- Age Group:* Parents of 21-to-83-month-olds
- Type of Sample:* Representative sample from diverse regions of the United States; Kindergarten and first-grade children, and their younger siblings
- Sample Size:* 408 children
- Type of Article:* Research/clinical
- Psychometrics:* *Inter-rater reliability:* 88 percent
Test-retest reliability: 88 percent agreement (duration unspecified) (cited from Glascoe, Altemeier and MacLean, 1989; Glascoe, 1991)
Concurrent validity: sensitivity = 79 percent; specificity = 72 percent (based on an extensive battery of assessments, using criteria for special education placement)
- Setting:* School in this article
- Type of Measure:* One open-ended question ("Please tell me any concerns about how your child is learning, developing, and behaving") followed by probes in specific child development domains ("Do you have any concerns about how he/she understands what you say?...talks?...makes speech sounds?...uses hands and fingers to do things?...uses arms and legs?...behaves?...gets along with others?...is learning to do things for himself/herself?...is learning preschool and school skills?"). Administration time is approximately three minutes.
- Comments:* The results of this study provide compelling evidence that parental concerns can supply pediatricians with valuable information. Based on this study, the concurrent and internal validity of the PEDS seem strong.

Summary: These four studies probe the value of the PEDS in terms of their utility for diagnosing child *outcomes* such as behavior problems, global developmental delays, and language problems. Taken together, the findings seem more strong for the utility of parental reports on specific aspects of child functioning than on parental worries about global functioning. While there is no doubt that parental concerns provide valuable information to pediatricians, the variable and sometimes low rates of parental concerns *when there is independent evidence of a developmental problem*, indicate that sole reliance on parental reports is unwarranted. Indeed, Glascoe and colleagues suggest that pediatricians should routinely elicit parental concerns using a standardized measure, such as the PEDS or the ECBI, and then consider referring children with positive results for *additional* screening. Lastly, it is important to note that many of the PEDS' items are most appropriate for children from the preschool years and older.

Jensen, A. M., and D. C. Harper, 1991. Correlates of concern in parents of high-risk infants at age five. *Journal of Pediatric Psychology* 16:429–445.

The purpose of this study was to assess whether the developmental, social, and medical concerns of parents of 5-year-olds who had been classified as high-risk infants were congruent with the child's medical history and developmental performance at age 5. Throughout the five-year study, parents completed the Child Behavior Checklist, the Parent Concern Survey, and children were assessed with the Denver Developmental Screening Test. The article specifically focused on the Parent Concern Survey and examined the factor structure of the measure and its relation to parent concerns.

Findings indicate that parents who had high levels of concern tended to have children with low birth weights, early births, and longer periods of neonatal hospitalization. These children also had lower outcomes on cognitive measures and more behavior problems at age 5. These results were unanticipated from previous developmental screenings.

<i>Dimensions:</i>	The factor structure indicates relevant dimensions including: concerns raised by medical personnel, information given about developmental status of infant in the first 3 months of life, whether parental concerns increased or decreased, specific difficulties of child, concerns about child's future developmental progress, and an estimate of child's readiness for school.
<i>Age Group:</i>	Longitudinal study: at the time of study, all children were 5 years old.
<i>Type of Sample:</i>	Children had initially been enrolled in the program at birth because of risk: low birth-weight, respiratory distress syndrome, central nervous system infection, etc.
<i>Sample Size:</i>	223 parent–child dyads
<i>Type of Article:</i>	Research with a clinical sample
<i>Psychometrics:</i>	<i>Internal consistency:</i> .64 for current sample
<i>Setting:</i>	Pediatrician's office and laboratory
<i>Type of Measure:</i>	10 items completed by parent assessing medical, developmental, and familial issues that are particular to high-risk infants (items included in article). Some questions are yes/no; some are open-ended; some are ratings.
<i>Comments:</i>	The results of this study suggest the value of obtaining information about parents' perceptions of the young child's developmental progress and readiness for school-related demands. The reported internal consistency, however, was modest. Also of importance, details are scant about results of earlier screenings in instances of high parental concerns.

Perrin, E. C., P. D. West, and B. S. Culley, 1989. Is my child normal yet? Correlates of vulnerability. *Pediatrics* 83:355–363.

The authors investigate the vulnerable child syndrome—a constellation of behaviors that are thought to develop as a result of excessive parental anxiety. The CVS was used to measure maternal perceptions of vulnerability. The authors expanded the scale and created a written

format and a telephone interview format; the modified scale was renamed the Vulnerable Child Scale (VCS). Maternal affect was measured with the General Well-Being Scale, and information regarding child behavior problems was obtained with the standard short form of the Personality Inventory for Children.

Results indicated that the risk factors for mothers developing a sense of their child's vulnerability included having a child who was born prematurely and who had significant neonatal morbidity, as well as mothers who had difficulties in the areas of personal and social well-being. Mothers' greater sense of vulnerability in their children was associated with more frequent reports of behavior problems and insecurity in their children.

<i>Dimensions:</i>	The 16-item scale includes items on parent concerns about child illnesses, accidents, injuries, somatic complaints, and energy level, and parents' worry, anxiety, and guilt.
<i>Age Group:</i>	Parents of 3-year-olds
<i>Type of Sample:</i>	Group 1: children with hyaline membrane disease or a birth weight less than 1,500 grams from a regional level 3 intensive care nursery. Group 2: children cared for in the standard nursery of the same hospital.
<i>Sample Size:</i>	105 families
<i>Type of Article:</i>	Clinical research
<i>Psychometrics:</i>	<i>Reliability (CVS):</i> "acceptable reliability" (cited from Forsyth and Canny) <i>Validity (CVS):</i> supported by citing Forsyth and Canny <i>Test-retest reliability (VCS):</i> after 4 weeks; $r = .95$ (phone and mailed administration) and $r = .96$ (two phone administrations). <i>Inter-item reliability (VCS):</i> Cronbach's $\alpha = .75$
<i>Setting:</i>	Telephone interview or questionnaire
<i>Type of Measure:</i>	16-item Likert parent-report scale using agreement with statements (definitely true, mostly true, neither true or false, mostly false, or definitely false), in written questionnaire format or telephone interview format.
<i>Comments:</i>	This article provides only limited information about the external validity of the VCS; however, the VCS may aid pediatricians of premature infants in identifying mothers at risk for anxiety about child health and development.

Thomasgard, M., and W. P. Metz, 1996. The two-year stability of parental perceptions of child vulnerability and parental overprotection. *Developmental and Behavioral Pediatrics* 17:222-228.

The authors used the Child Vulnerability Scale (CVS), the Parent Protection Scale (PPS), and the Parenting Bonding Instrument (PBI) to assess the stability and child behavioral correlates of parental perceptions of increased child vulnerability and parental overprotection in a two-year longitudinal study.

Results reveal that of parents reporting increased overprotective behaviors toward their child, 37 percent remained in this group during the two-year time period. Of parents who perceived their child to be vulnerable to illness/injury, 31 percent remained in this group during the study's time

period. A significant association was found between parental perceptions of child vulnerability at the first visit and parent report of problematic child behaviors at follow-up.

<i>Dimensions:</i>	CVS: assesses parents' perceptions of children's vulnerability and concerns about child health. PPS: assesses specific parenting behaviors related to child autonomy, individuation, and separation. PBI: assesses how parents perceive their own upbringing within the domains of care and protection.
<i>Age Group:</i>	Caregivers of children ages 2.5 to 5 (age at intake)
<i>Type of Sample:</i>	Children seen for well, follow-up, or sick visits; 90 percent middle- to high-income families, 86 percent Caucasian.
<i>Sample Size:</i>	114 parent-child dyads
<i>Type of Article:</i>	Clinical research
<i>Psychometrics:</i>	<i>Internal consistency:</i> CVS (.73); PPS (.73) <i>Test-retest reliability:</i> 3–5 weeks later: CVS (.84); PPS (.86); PBI ("acceptable") <i>Additional Psychometric Properties:</i> PPS-significant agreement with clinicians judgments; sensitivity = 71 percent; specificity = 94 percent (cited from Thomasgard, Metz, Edelbrock, and Shonkoff, 1995); PBI-validity found to be "acceptable in a variety of populations and settings" (p. 224)
<i>Setting:</i>	Waiting room of pediatric office during initial visit, follow-up sent to homes
<i>Type of Measure:</i>	All three scales are Likert scales that reflect the degree of caregiver agreement: CVS, 8 items; PBI, 25 items; PPS, 25 items.
<i>Comments:</i>	All of the measures in this study had been used previously. Therefore, the authors did not examine psychometric issues with this sample. PBI items are listed in the article.

Triggs, E. G., and E. C. Perrin, 1989. Listening carefully. Improving communication about behavior and development: Recognizing parental concerns. *Clinical Pediatrics* 28:185–192.

The purpose of this article was to present the Preschool Children's Behavior Checklist, a checklist that assesses parental concerns about child behavior and development. The checklist was designed to improve communication between parent and pediatrician.

Findings indicated that more items in general, and more items that were of concern to the parents, were discussed with the pediatrician with the checklist than without. Most of the pediatricians surveyed after the study stated that the checklist did not add inconvenience to their practice and it did not take up a significant proportion of their time to use the checklist and discuss it with parents.

<i>Dimensions:</i>	Parent concerns about preschool children's behavior, with items about sleep and eating habits, speech, toilet training, attention, activity, anxiety, mood, compliance, vision and hearing, and somatic symptoms, as well as occurrence of stressful family events such as moving or marital problems.
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<i>Age Group:</i>	18 to 72 months
<i>Type of Sample:</i>	Mostly white, middle- to upper-class
<i>Sample Size:</i>	396 parent–child dyads
<i>Type of Article:</i>	Clinical research
<i>Psychometrics:</i>	Not stated in article
<i>Setting:</i>	Community pediatricians' offices, mostly in middle- to upper-class areas
<i>Type of Measure:</i>	A 35-item checklist completed by parents in the waiting room, yes/no responses
<i>Comments:</i>	The results of this study indicate the checklist was a helpful, efficient tool to improve communication between parents and pediatricians. The results of the study however may not generalize to parents from other ethnic groups, those who have low levels of education, and those who are not affluent.

F. CHILD TEMPERAMENT AND BEHAVIOR

There is increasing evidence that the temperamentally difficult young child can pose a risk to the parent–child relationship and to family functioning. If this should happen, there is additional vulnerability for the child’s well-being. These findings have led to renewed efforts to measure temperament in the early years, and to provide guidance for parents when warranted. The annotations listed below include both research and clinical approaches to measuring temperament variations in young children.

Brenner, V., and R. A. Fox, 1998. Parental discipline and behavior problems in young children. *The Journal of Genetic Psychology* 159:251–256.

The Parent Behavior Checklist (PBC) and the Behavioral Screening Questionnaire (BSQ) were used to examine the relation between parenting practices and behavioral problems.

Results suggest that the PBC’s discipline subscale was the best predictor of children’s behavioral problems: mothers with high scores on the discipline subscale were twice as likely to have children with behavioral problems. Results on the nurturing and expectations subscales were mixed.

<i>Dimensions:</i>	The PBC includes three subscales: discipline, nurturing, and expectations.
<i>Age Group:</i>	1 to 5 years
<i>Type of Sample:</i>	Authors state the sample is representative of a midwestern, urban population (over-representation of middle- and upper-income families); sample recruited from day-care centers and preschools
<i>Sample Size:</i>	1,056 mothers
<i>Type of Article:</i>	Research
<i>Psychometrics:</i>	<i>Internal consistency:</i> for PBC subscales: expectations (.97), discipline (.91), and nurturing (.82) <i>Test-retest reliability:</i> PBC, one-week delay: expectations (.98), discipline (.87), and nurturing (.81) (cited from Fox, 1992, which used the same data)
<i>Setting:</i>	Not stated
<i>Type of Measure:</i>	100-item questionnaire (4-point frequency scale) completed by parent. Requires third-grade reading level.
<i>Comments:</i>	The authors report that parents’ use of verbal and corporal punishment contributed more unique variance to children’s problem behaviors than all demographic predictors combined. They also noted that discipline accounted for more than 13 percent of the unique variance and almost 20 percent of the variance for behavior problems.

Cameron, J. R., and D. C. Rice, 1986. Developing anticipatory guidance programs based on early assessment of infant temperament: Two tests of a prevention model. *Journal of Pediatric Psychology* 11:221–234.

This report concerns two studies in which the revised Carey and McDevitt Infant Temperament Questionnaire was used at infant-age 4 months to determine *discriminant predictability* and the

differential utility of anticipatory guidance material offered to parents. Anticipatory guidance approaches were theoretically identified using: infant temperament styles, caregiving issues that arise from ages 5 to 12 months (e.g., mealtimes, accident risk, sleep), and an *expected* relation between temperament and issues. The goal was to present an anticipatory guidance approach to parents depending on their infant's temperament style. In the first study, young mothers (i.e., 17 to 21 years) and their firstborn infants were invited to participate (35% acceptance rate). After filling out the temperament questionnaire for their 4-month-olds, each family received selected guidance materials specifying issues likely to emerge with their child during the next 8 months. At 12 months, the parents were given a follow-up questionnaire (unnamed; 48% parent return rate). The information from the questionnaire was used to evaluate the discriminant predictability and the predictive accuracy of the usefulness of the anticipatory guidance material. (The authors' procedure involved use of a mathematical index to estimate the distance between the child's observed temperament profile and the Expected Temperament Profile, and parental reports that problems occurred for behavioral issues). The authors reported that infants' 4-month temperament profiles differentially predicted different issue and problem patterns during the time period covered. The anticipatory guidance program was found to have differential utility for parents.

In the second study, parents in a large HMO were contacted by mail when their infants were 4 months old and asked to participate. Close to 43 percent agreed, with most parents having one to three children (n=1,165), and most representing middle-class. The procedures were similar to the above, with two exceptions. First, half the group received anticipatory guidance, and half did not. Second, of the parents receiving anticipatory guidance, half received the follow-up at 8 months and half at 12 months. The return rate of the follow-up questionnaires was 67 percent (n=602). The predictive accuracy of the procedure was confirmed for the 8-month data (particularly for parents reporting *high-energy, fast-adjusting infants*), but was not confirmed for the 12-month data.

<i>Dimensions:</i>	Areas of developmental issues included accident risk, assertiveness, mealtime, sleep, sensitivity, and passivity.
<i>Age of Subjects:</i>	Temperament assessed at 4 months; follow-up questionnaires distributed at 12 months
<i>Type of Sample:</i>	Healthy newborns; mixed ordinality; mostly middle-class
<i>Sample Size:</i>	Participation to follow up: study 1 = 85; study 2 = 602
<i>Type of Article:</i>	Clinical research
<i>Psychometrics:</i>	Discriminant predictability of the different patterns of temperament was tested with a two-way ANOVA for two temperament domains (energy and adaptability), and correlations were examined between the individual issues and the nine temperament scales (results were not stated in article). Validity of the guidance selection: Chi-square (issue distance interval by all issues combined) = 26.75, $p < .001$.
<i>Setting:</i>	Questionnaires were mailed to the home.
<i>Type of Measure:</i>	Questionnaire using a four-point occurrence scale for 37 issues and using a five-point Likert scale for seven items on the effectiveness of the anticipatory guidance completed by parent.

Comments: The construct of anticipatory guidance has considerable appeal. However, it should be noted that respondents to the follow-up questionnaire tended to be parents of a 4-month-old whose temperament was relatively moderate, was not particularly active, and displayed relatively positive mood states. Moreover, both studies included relatively restricted samples. Whether similar findings (including anticipatory guidance) would be obtained with more diverse parents is unknown.

Clarke-Stewart, K. A., M. J. Fitzpatrick, V. A. Allhusen, and W. A. Goldberg, 2000. Measuring difficult temperament the easy way. *Developmental and Behavioral Pediatrics* 21:207–220.

This research originated at the University of California, Irvine, headquarters of the multisite National Institute of Child Health and Human Development (NICHD) longitudinal study of early child care. Participation in this large-scale project led the authors to the realization that “a simple and practical tool for assessing temperament” was needed for clinical settings. In turn, this led to the development of the Pictorial Assessment of Temperament (PAT). The PAT centers on the concept of *difficult temperament* (including negative reactivity or emotionality), which has repeatedly been linked to long-term child behavior problems. The PAT’s direct conceptual roots derive from Carey and McDevitt’s (1978) Revision of the Infant Temperament Questionnaire (RITQ), the temperament measure used in the overall NICHD study. In contrast to other measures, the PAT uses vignettes and line drawings, rather than written descriptions, for parent reports. Parents are asked to view a series of 10 pictorial vignettes of babies or toddlers with difficult, average, slow-to-warm-up, or easy temperaments. They are then asked to select the line drawing that fits closest with their child’s behavioral style. Parental response time to the PAT is approximately two minutes.

In this study of the PAT, the authors addressed validation issues by drawing upon data they collected using the RITQ, the Adaptive Social Behavior Inventory (ASBI) (particularly, the sociability and disruptiveness subsections), and the Child Behavior Checklist (CBC) for ages 2 to 3. In addition, a laboratory observation was made at 5 months, with situations similar to items on the RITQ. The PAT was administered at 5 months and again at 30 months using the toddler version. The RITQ was administered at 6 months and at 30 months. The ASBI and CBC were administered at 24 and 36 months; a retrospective PAT was also administered at 30 months.

Dimensions: Three themes: easy, difficult, average infant/toddler, incorporating RITQ dimensions of negative mood, lack of approach to strangers, slow adaptability to change; high intensity of emotional expression. PAT scores were derived from the mean value of the 10 pictorial vignettes completed by mothers and fathers.

Age of Subjects: The PAT was administered at 5 and at 30 months.

Type of Sample: Healthy newborns randomly recruited from two local hospitals during selected periods in 1991. Of 264 eligible mothers, half agreed to participate (132 mothers, 97 fathers, 148 nonmaternal caregivers); primarily Caucasian (21% Hispanic); mostly middle-class

Sample Size: N=132 infants

Type of Article: Research

- Psychometrics:* *Internal consistency:* alphas ranged from .49 to .74, for mothers and fathers. *Intra-rater test–retest reliability:* tested by comparing PAT and RITQ scores, with values ranging from .3 to .5. *Cross-age stability:* not significant for maternal scores for PAT at 5 months and 30 months. *Convergent validity:* within-rater agreement: parents' PAT scores were significantly related to their RITQ scores; between-rater agreement: across-rater agreement for PAT and RITQ scores (coefficients, .2 range); correlation with temperament: mixed findings, but strongest finding was between difficulty observed in the laboratory and retrospective PAT scores. *Predictive validity:* higher PAT scores, in general, predicted disruptive behavior and behavior problems (significant findings typically in the .2 and .3 range).
- Settings:* For the larger study: home visits at 1, 6, 15, 24, and 30 months; laboratory visits at 5, 15, 18, 24, 30, and 36 months; nonmaternal child care visits at 6, 15, 24, and 36 months. The PAT study used data collected at 5, 6, 24, 30, and 36 months.
- Type of Measure:* Ten pictorial vignettes, including: When you give baby to a stranger to hold while you are busy, how does baby react? When you wash baby's face with a wet washcloth, how does baby react? When you give baby a bath in warm water, how does baby react? Each example is listed on the first page of a vignette sample; parents (other caregivers) are encouraged to read the vignette and to think of their own child. Respondents then turn to the second page, which contains illustrations of Baby/Toddler X (easy), Y (average), and Z (difficult) in a particular setting, and select the illustration that best represents their child.
- Comments:* The authors of this article rightly conclude that aspects of child temperament have been associated with long-term problems—most particularly when paired with family disruptions and ineffective parenting. Thus, there is widespread interest in temperament measures that can alert clinicians to potential problems. As many have noted, however, the task is quite challenging. Some of the challenges are noted in Carey's (2000) commentary that follows the PAT article. He points out that (1) the PAT is a promising creative measure that should be regarded as an initial presentation rather than a finished product; (2) it has not been used in clinical trials; (3) a 10-item measure is inadequate for a screening measure of temperament; (4) the measure has a limited number of temperament dimensions; and (5) it has relatively modest psychometric findings.

Eyberg, S. M., and A. W. Ross, 1978. Assessment of child behavior problems: The validation of a new inventory. *Journal of Clinical Child Psychology* 7:113–116.

The aim of this study was to validate the Eyberg Child Behavior Inventory (ECBI). The ECBI successfully discriminated between children who had behavioral and intellectual/developmental problems. The authors suggest that test items provide information for targets of interventions.

Dimensions: Disruptive behaviors

Age Group: 2 to 7 years
Type of Sample: 22 in Non-Clinical group, 43 in Behavior Problem group, 20 in Clinical Control group
Sample Size: 75 children
Type of Article: Research
Psychometrics: *Internal consistency:* .98
Test-retest reliability: .86 (cited from Robinson, Ross, and Eyberg, 1977; Robinson and Eyberg, 1977)
Setting: Behavioral assessment clinics, family practice clinics, and pediatric outpatient clinics
Type of Measure: 36-item questionnaire completed by mothers: problem identification (Y/N) and frequency (Likert scale) for each item
Comments: Previous studies found that the ECBI has good internal validity. This study found that the ECBI could accurately differentiate between the behavior problem and control group, an indicator of external validity.

Goldberg, S., M. Janus, J. Washington, R. J. Simmons, I. MacLusky, and R. S. Fowler, 1997. Prediction of preschool behavioral problems in healthy and pediatric samples. *Developmental and Behavioral Pediatrics* 18:304–313.

In this prospective study, the authors used three measures to predict preschool behavior problems. The Child Behavior Checklist (CBCL, Achenbach), given when participants were 4 years old, was used as the outcome measure. The Strange Situation paradigm (Ainsworth) was used to measure the parent–child relationship for children ages 12 to 18 months, and a puzzle task was used when children were ages 2 and 3. The PSI was used to assess parents' experience of child-rearing.

Results indicated the PSI was the most consistent predictor of later behavior problems.

Dimensions: PSI: Parent domains include competence, role restriction, social isolation, spousal problems, and health problems. Child domains include child health, temperament, and attachment status. Child behavior problems (CBCL) was the outcomes variable.
Age Group: Infants during the first year, followed longitudinally and annually through age 4.
Type of Sample: 47 with cystic fibrosis, 48 with congenital heart disease, 42 with no chronic illness
Sample Size: 137 children
Type of Article: Research
Psychometrics: *Inter-rater reliability:* strange situation: .72 to 1.00, mean = .75 (percent agreement).
Setting: Laboratory

Type of Measure: PSI: 101-item Likert parent questionnaire with a 19-item checklist on stressful life events yielding a total score, a child domain score (includes scores on adaptability, acceptability, demandingness, mood, distractibility/hyperactivity, and reinforces parent), and a parent domain score (includes depression, attachment, restriction of role, sense of competence, social isolation, relationship with spouse, and parent health). (Information not stated in article.)
CBCL: 113-item Likert parent questionnaire. Ainsworth Strange Situation: Sessions were videotaped and coded for secure, avoidant, or resistant attachment.

Comments: This study provides a unique comparison of measures that are often used in predictive studies. The study's findings are intriguing, in light of previous data about the predictive utility of attachment measures and the CBCL. The approach and data are worthy of additional research, particularly with different clinical samples.

Goldsmith, H. H. (1996). Studying temperament via construction of the Toddler Behavior Assessment Questionnaire. *Child Development* 67:218–235. Lemery, K. S., H. H. Goldsmith, M. D. Klinnert, and D. A. Mrazek. Developmental models of infant and childhood temperament. *Developmental Psychology* 35:189–204.

These two research articles focus on Goldsmith's measure of toddler temperament, the Toddler Behavior Assessment Questionnaire (TBAQ), originally designed for use with 18-to-24-month-old children, but reportedly useful for toddlers ages 16 to 36 months. The 1996 article in particular provides extensive information about the development of the measure, its psychometric properties, and findings derived from use with a number of samples. The article also includes a section devoted to the construct of temperament difficulty and shows comparisons with two other measures of temperament. Activity level and anger proneness reveal moderate associations with Bates's overall *difficulty* and *fussy* subscales, and, with an *aggression* subscale of Rothbart's measured at 4 years. Of note, both articles deal with issues of stability of temperament across early childhood; however, the 1999 article focuses on analyses of stability models. In aggregate, findings indicate considerable change in temperament during infancy but increasing stability from ages 2 to 4. The 1994 TBAQ is available from the author.

Dimensions: Temperament domains of activity level, pleasure, social fearfulness, anger proneness, interest/persistence

Age Group: 1996 sample: 16–48 months, but primarily 18–24 months; 1999 sample: 3–48 months (used TBAQ and other measures)

Type of Sample: 1996: 11 samples, primarily Caucasian and of diverse socioeconomic status; recruited by phone, letter, or newspaper advertisements; some samples include twins; 1999: infants who were at genetic risk for developing asthma, and a comparison sample of infants not at risk, primarily Caucasian, of diverse socioeconomic status

Sample Size: 1996: total records used = 1,012 (variously used for item analysis, discriminant validity, follow-up); 1999: 150 at-risk, 30 non-at-risk

Type of Article: Research

<i>Psychometrics:</i>	<i>Internal consistency</i> (1996 data): alphas range from .78 to .89 <i>Validity</i> (1996 data): significant correlation with other temperament measures, but magnitude of correlations is a function of type of emphasis on other measures. Overall, activity level, social fearfulness, and anger proneness show strongest associations; stability data (n=37) show highest correlations from 18 months to 4 years for activity level (.43), pleasure (.41), anger proneness (.32), and interest/persistence (.54).
<i>Setting:</i>	Mothers (primarily) completed the temperament questionnaire before coming to a laboratory setting.
<i>Type of Measure:</i>	Seven-point Likert-type scale ranging from "never" to "always," with provision for a "not applicable" response. Questions are posed around different situations such as child's behavior while playing, eating/dressing/bathing/going to bed, or general aspects of child's behavior. The number of questions in the long version of the TBAQ that pertain to each dimension is: activity level (20), pleasure (19), social fearfulness (19), interest (22), anger proneness (28), and social desirability (20).
<i>Comments:</i>	The potential clinical relevance of this measure pertains to the anger proneness dimension (i.e., behavioral difficulty) revealed in the toddler period. A growing literature notes the association between aggression and out-of-control behavior in the early years to later childhood difficulties. Additional research is warranted with clinical samples, as well as samples representing different ethnic and cultural backgrounds.

Jellinek, M. S., J. M. Murphy, and B. J. Burns, 1986. Brief psychosocial screening in outpatient pediatric practice. *Journal of Pediatrics* 109:371–378.

The two studies in the article examined the acceptability, reliability, and validity of the Pediatric Symptoms Checklist (PSC), a brief, parent-completed screening questionnaire, designed to be available in the waiting room, for identifying school-aged children with behavior problems. In Study 1, the validity of the PSC was examined by comparing its rate of agreement with the Childhood Behavior Checklist (CBCL). Results indicated that the PSC agreed with the CBCL for most of the children (disagreement on 12 percent of the children). In Study 2, parents of children referred to a psychiatric clinic were asked to complete both the PSC and the CBCL. Eighty-seven percent of the children were correctly classified as "at risk." Also, clinicians in the second study rated all children on level of functioning from "good" to "very poor." All of the children who were rated as "poor" or "very poor" were correctly classified.

Study 1:

<i>Dimensions:</i>	The PSC includes items covering a broad range of behavior problems.
<i>Age Group:</i>	6–12 years
<i>Type of Sample:</i>	All parents of children who were in the age range in waiting room of outpatient pediatric practices; 99 percent Caucasian
<i>Sample Size:</i>	206 children
<i>Type of Article:</i>	Clinical research

Psychometrics: Agreement with CBCL: Cohen's κ = .37 to .48 (for subscales)
Internal consistency: .86
Test-retest reliability: after one week, .86 (n=22)

Setting: Outpatient pediatric practice

Type of Measure: 34-item questionnaire; parents check "never," "sometimes," or "often" for each item; three to five minutes to complete

Study 2:

Dimensions: See above

Age Group: 6–12 years

Type of Sample: Children referred for psychiatric evaluation

Sample Size: 31 children

Type of Article: Clinical research

Psychometrics: Agreement with CBCL: Cohen's κ = .76
Internal consistency: .85

Setting: Hospital or child health center

Type of Measure: See above

Comments: Sample is small and not rigorously selected.

Summary: The results of these studies suggest that the PSC has good internal and external validity, particularly with the normative sample. The PSC is intended for use as a brief screening tool in pediatric practices. The article includes a list of all of the PSC items.

Little, D. L., 1983. Parent acceptance of routine use of the Carey and McDevitt Infant Temperament Questionnaire. *Pediatrics* 71:104–106.

The purpose of this study was to examine parents' reactions to the use of the Carey and McDevitt Infant Temperament Questionnaire as a screening instrument. Parents filled out the questionnaire and then discussed the results with the authors at a subsequent visit. Overall, parents felt that the process helped them understand their child, and over half stated that it changed their parenting in some way.

Dimensions: Temperament scales include activity, intensity, adaptability, approach/withdrawal, rhythmicity, thresholds, persistence, and distractibility (not stated in article).

Age Group: 6 months

Type of Sample: Parents of children at 6-month health maintenance visit

Sample Size: 79 parents

Type of Article: Clinical

Psychometrics: Not stated

Setting: Sent home with parents, returned by mail
Type of Measure: 95-item Likert questionnaire completed by parents
Comments: No validity or reliability data were provided.

O'Boyle, C. G., and M. K. Rothbart, 1996. Assessment of distress to sensory stimulation in early infancy through parent report. *Journal of Reproductive and Infant Psychology* 14:121–132.

Two studies are reported that focus on the Infant Reactions Inventory (IRI), a measure of young infants' reactions to sensory stimuli (vision, audition, taste, and touch). *Distress to sensory stimulation* is also defined as "negative emotional reactions to relatively intense sensory stimulation," and "frequent and intense reactions" (e.g., irritability). The measure is grounded in the temperament conceptualizations and research of Rothbart (which, in part, has conceptual linkages to Thomas's and Chess's New York Longitudinal study), and to applied issues. The authors note the rate of prenatal exposure to drugs (e.g., cocaine) and the relatively common finding of high irritability and resistance to soothing among young infants with this background. Accurate assessment of these infants could lead to more rapid interventions.

The IRI specifically focuses on infant irritability to nonsocial sensory stimuli. Study 1 involved the generation of items, which were subsequently administered to mothers of 4-month-olds. The final version of the IRI contained 15 sets of items with three items in each set. No differences were obtained in analyses focused on gender, birth order, or type of birth (e.g., cesarean section). Study 2 focused on establishing standard scores for the IRI. Findings suggest the IRI taps into general features of distress exhibited by infants ages 3 to 5 months.

Dimensions: Negative reactivity in four nonsocial sensory modalities: vision, audition, taste, and touch
Age Group: 14–18 weeks. Study 1: M = 15 weeks. Study 2: M = 16 weeks.
Type of Sample: Parents of infants who resided in or near Eugene–Springfield, Oregon; primarily Caucasian; varying socioeconomic status
Sample Size: Study 1 = 89 (42% response rate); Study 2 = 89 (71% response rate)
Type of Article: Research
Psychometrics: Study 1: alpha = .91; principal components analysis: a single factor explained 31 percent of variance; concurrent validity, IRI irritability scores revealed significant positive correlations with measures of negative reactivity (e.g., activity level, distress to limitations, fear) from Rothbart's Infant Behavior Questionnaire (IBQ). Study 2: alpha = .84; principal components analysis: the first factor explained 28 percent of variance; concurrent validity: IRA irritability was positively associated to IBQ, on same dimensions found in Study 1.
Setting: Packets sent via mail; Study 2 used phone introductions and then mail packets.
Type of Measure: The Study 1 measure had 18 sets of questions (e.g., responses when being dressed, having diaper changes, having face washed, being tossed around

playfully). Three item sets were removed: suffering minor injuries, subjected to loud or continuous noises, and negative reactions to new foods. The Study 2 measure had 15 sets of items. Mothers responded to a Likert-type questionnaire (seven values, “never” to “always,” and a “not applicable” option) and three possible situations (seem not bothered, fuss or cry mildly, cry loudly). All items were averaged for a single distress score.

Comments: Individuals who ask to use the IRI receive communication from the authors indicating that the measure is to be used only for research on irritability, with infants from 12 to 20 weeks of age. Additional research with samples could reveal the clinical utility of the measure for working with parents, similar to that proposed by Cameron and Rice described above.

Richman, N., and P. J. Graham, 1971. A behavioral screening questionnaire for use with three-year-old children. Preliminary findings. *Journal of Child Psychology and Psychiatry* 12:5–33.

This article discusses the development of the Behavioral Screening Questionnaire (BSQ), a measure designed to assess information on aspects of development, health, and behavior of preschool-aged children. This measure can be used to identify children with behavioral difficulties, developmental delays, or physical handicaps.

Dimensions: Items cover a broad range of behavioral difficulties in children.
Age Group: 36 months \pm 6 months
Type of Sample: Children from welfare centers, nursery schools, cerebral palsy units, and the Children’s Hospital in Britain
Sample Size: 77 children
Type of Article: Clinical
Psychometrics: *Inter-rater reliability:* on total behavior score = .77 (correlation coefficient); on taped interviews = .94 (correlation coefficient)
Validity: assessed qualitatively
Setting: Not stated
Type of Measure: Structured interview which takes 20 to 30 minutes to complete (60 questions). Ratings are given based on responses to interview questions.
Comments: The psychometric properties of the BSQ are relatively modest; however, the clinical utility of the measure was reported in Richman, Stevenson and Graham, 1982. The entire interview is included as an appendix.

Rothbart, M. (2000, unpublished). Children’s Behavior Questionnaire, Short Form Version 1 (rights reserved); Children’s Behavior Questionnaire Short Form, User’s Guide.

This research-oriented measure of temperament is a derivative of Rothbart’s work on developing temperament measures for infants and older children and studying same with respect to psychometrics and other issues (e.g., Rothbart, 1981; Rothbart, Ahadi, and Hershey, 1994). In contrast with the long form of the Children’s Behavior Questionnaire, which has 195 items, the

short form has fewer than 100 items. Rothbart also notes the option of “administering only a selected subset of CBQ scales” when a research question has a strong focus.

The user guide to the short form provides definitions of scales, information about internal consistency and correlations, an item-by-scale index, and scoring procedures.

<i>Dimensions:</i>	Temperament dimensions of activity level, anger/frustration, approach/positive anticipation, attentional focusing, attentional shifting, discomfort, falling reactivity/soothability, fear, high-intensity pleasure, impulsivity, inhibitory control, low-intensity pleasure, perceptual sensitivity, sadness, shyness, smiling, and laughter
<i>Age Group:</i>	3–8 years
<i>Type of Sample:</i>	Not stated
<i>Sample Size:</i>	Internal consistency studies of individual scales involved three studies (n=171 for children with a mean age of 39 months, n=174 for children with a mean age of 66 months, and n=123 for children with a mean age of 87 months).
<i>Type of Article:</i>	Research
<i>Psychometrics:</i>	Alphas for individual scales, in the three samples, generally ranged from .67 to .93, with many having values in the high .7 range or in the .8 range; correlations between CBQ long- and short-form scales ranged from .8 values to .9 values.
<i>Setting:</i>	Not stated
<i>Type of Measure:</i>	Questionnaire for parents. “My child ...” response options are Likert-type, and range from “extremely untrue” to “extremely true,” along with a “not applicable” option.
<i>Comments:</i>	This measure could lend itself to clinical research, particularly for samples that have been understudied. The individual item format is straightforward, and the examples are written clearly and are age-appropriate. Clinical researchers may be particularly interested in the scales that deal with attentional control, inhibitory control, impulsivity, and anger/frustration.

G. CHILD DEVELOPMENTAL CLINICAL ASSESSMENT APPROACHES

The annotations in this section provide examples of developmental assessment approaches that may be useful in clinical settings.

Bagnato, S. J., J. T. Neisworth, and S. M. Munson, 1997. *Linking Assessment and Early Intervention: An Authentic Curriculum-Based Approach*. Baltimore: Paul H. Brookes.

This book includes sample items and summarizes numerous assessment tools that address a wide variety of developmental and behavioral issues. For this review, the HOME (Home Observation for Measurement of the Environment) was examined.

Dimensions: The HOME measures the content, quality, and responsiveness of a child's home environment.

Age Group: For use with children from birth to 72 months

Type of Sample: Not stated

Sample Size: Not stated

Type of Article: Book

Psychometrics: "Good" validity and reliability for typically developing infants and preschoolers

Setting: Not stated

Type of Measure: Yes/no checklist of standardized items after observation period; birth to 36 months = 45 items; 36 to 72 months = 80 items

Comments: This measure has been used extensively in previous research, particularly with families who are at risk due to economic or other stresses. The generalizability of this measure warrants further study as it has not been used extensively with clinically/developmentally disabled children and their families.

Ireton, H., and F. P. Glascoe, 1995. Assessing children's development using parents' reports: The Child Development Inventory. *Clinical Pediatrics* 34:248–255.

This article examined the validity of the Child Development Inventory (CDI), which is a revision of the 1992 MCDI. Validity of the CDI was assessed by viewing the progression of mean scores with age, by comparing children's CDI scores with psychological assessment scores, and by examining CDI scores for children with disabilities. The CDI correctly classified 73 percent of the children with developmental disabilities and was associated with academic achievement for kindergartners. The authors suggest that this checklist could be used by pediatricians to identify parents' concerns in assessment of children whose development is questionable or delayed, rather than as a screening measure. However, when delays are suspected, this checklist can help families to collaborate with physicians to specify problem areas or clarify whether or not there are delays or behavior problems in other areas as well. Finally, the authors suggest this measure could be used in longitudinal research investigating developmental disabilities or learning disabilities associated with illness.

<i>Dimensions:</i>	The CDI assesses the development of social, self-help, motor, language, letter, and number skills, and presence of symptoms and behavior problems of children from ages 15 months to 5 years.
<i>Age Group:</i>	1–6 years
<i>Type of Sample:</i>	Standardization sample from Minnesota; 95 percent Caucasian
<i>Sample Size:</i>	568 children
<i>Type of Article:</i>	Research
<i>Psychometrics:</i>	<i>Internal consistency:</i> for subscales, .70 to .90 <i>External validity:</i> for kindergarten sample, correlation with reading test at the end of kindergarten (based on Macmillan Objectives Readiness, Level 7)—from .35 to .69 for subscales
<i>Setting:</i>	Filled out at home
<i>Type of Measure:</i>	270-item checklist questionnaire; 30 to 50 minutes for parents to complete
<i>Comments:</i>	The data from this study provide support for the reliability and validity of the CDI. However, the limitations of the standardization sample suggest that this measure should be examined with a more diverse sample.

Ireton, H., E. Thwing, and S. K. Currier, 1977. Minnesota Child Development Inventory: Identification of children with developmental disorders. *Journal of Pediatric Psychology* 2:18–22.

Ireton and colleagues explored the validity of the Minnesota Child Development Inventory (MCDI). The MCDI measures the development of preschool-age children using an inventory format to obtain mothers' observations. The MCDI was compared to the results of psychological evaluations. The classifications (i.e., normal, borderline, or retarded) obtained from the overall MCDI profile and the subscales general development, fine motor, expressive language, and comprehension-conceptual demonstrated good correspondence with the conclusions reached in the psychological evaluations.

<i>Dimensions:</i>	The MCDI includes 8 scales: gross motor, fine motor, expressive language, comprehension–conceptual, situation comprehension, self-help, and personal–social.
<i>Age Group:</i>	16–72 months
<i>Type of Sample:</i>	Caucasian mothers of children referred for psychological evaluation; most of the mothers were high school graduates
<i>Sample Size:</i>	109 children
<i>Type of Article:</i>	Research
<i>Psychometrics:</i>	<i>Validity:</i> 85 percent of children classified as retarded with general development scale were also classified as retarded through psychological evaluation. Sixty percent agreement for borderline children; 30 percent agreement for retarded children

Setting: Not stated

Type of Measure: 320-item questionnaire; mother responds yes/no to indicate if she has observed the behavior in her child.

Comments: The 1992 revision of this measure was used as the foundation for the CDI (see next entry).

Macias, M. M., C. F. Saylor, M. K. Greer, J. M. Charles, N. Bell, and L. D. Katikaneni, 1998. Infant screening: The usefulness of the Bayley Infant Neurodevelopmental Screener and the Clinical Adaptive Test/Clinical Linguistic Auditory Milestone Scale. *Developmental and Behavioral Pediatrics* 19:155–161.

The purpose of this study was to assess the usefulness of the Bayley Infant Neurodevelopmental Screener (BINS) and the Clinical Adaptive Test/Clinical Linguistic Auditory Milestone Scale (CAT/CLAMS) to screen high-risk infant populations. The CAT/CLAMS was designed to assess possible developmental delays and to provide a comparison of non-language versus language skills. Both measures were highly correlated with the Bayley Scales of Infant Development-II; however, the BINS had good sensitivity for children scoring in the high and moderate ranges, whereas the CAT/CLAMS in general had good specificity but poor sensitivity.

Dimensions: The CAT/CLAMS assesses visual-motor abilities and receptive and expressive language skills. The BINS assesses basic neurological functions, receptive functions, expressive functions, and cognitive processes.

Age Group: 6–24 months (mean = 12.0 months)

Type of Sample: High-risk infants: premature birth and/or perinatal insults

Sample Size: 78 infants

Type of Article: Research with a clinical population

Psychometrics: *Validity:* Both instruments demonstrated modest significant correlations with the BSID-II. For the BINS, optimal sensitivity (90%) was obtained using high or moderate scores to identify children classified as delayed by the BSID-II. Using BINS high scores alone improved specificity but decreased sensitivity. The CAT/CLAMS detected only 5 to 36 percent of the infants identified as delayed by the BSID-II, but identified 95 to 98 percent of infants categorized as normal by the BSID-II.

Setting: Hospital, administered by pediatrician or supervised resident

Type of Measure: CAT/CLAMS is a 100-item measure (the CAT consists of tasks administered to the infant, and the CLAMS consists of parent report and direct testing) with an administration time of 15 to 20 minutes for children ages 1 to 36 months. Basal and ceiling points determine selected items to be administered. Results yield developmental age equivalents and developmental quotients. The BINS comprises six sets of 11 to 13 items each, administered to children ages 3 to 24 months in approximately 10 minutes. Infants are classified as low, moderate, or high risk.

Comments: The authors provide a clear and useful discussion of the trade-offs of emphasizing either the sensitivity or specificity of a given measure, and of

the necessity of clarifying the goals of the clinic in order to select the test most compatible with those goals.

Squires, J., R. E. Nickel, and D. Eisert, 1996. Early detection of developmental problems: Strategies for monitoring young children in the practice setting. *Developmental and Behavioral Pediatrics* 17:420–427.

The authors suggest that parent report measures can be the first step in a developmental screening procedure. If the results of the parent report measure indicate a possible problem, the child can be screened in the pediatrician's office or referred for a diagnostic evaluation. In addition to discussing an approach to developmental monitoring, the article gives an overview of selected screening tools (parent-completed: Ages and Stages Questionnaires, Child Development Inventories; professionally administered: Battelle Developmental Inventory Screening Test, Bayley Infant Neurodevelopmental Screener, Brigance Screens, Early Screening Inventory, First Step). For each measure, the article includes: the age range for the instrument, a description of the measure, psychometrics, and information on how to obtain the measure. The information below is on the Ages and Stages Questionnaires.

<i>Dimensions:</i>	Areas include fine motor, gross motor, communication, adaptive, and personal-social.
<i>Age Group:</i>	Administered at ages 4, 6, 8, 12, 16, 18, 20, 24, 30, 36, and 48 months
<i>Type of Sample:</i>	Standardization sample
<i>Sample Size:</i>	1,511 children stratified on age, sex, and SES
<i>Type of Article:</i>	Research
<i>Psychometrics:</i>	<i>Test-retest reliability:</i> .94 <i>Inter-rater reliability:</i> .94
<i>Setting:</i>	Not stated
<i>Type of Measure:</i>	30-item questionnaire; completed by parent in 10 to 15 minutes
<i>Comments:</i>	This article provides an overview of several measures, but limited information is provided about each measure.

ADDITIONAL ARTICLES OF INTEREST

Budd, K. S., and M. J. Holdsworth, 1996. Issues in clinical assessment of minimal parenting competence. *Journal of Clinical Child Psychology* 25:2–14.

This article contains a review of various issues and measures for assessing minimal parenting competence. It includes discussion of issues relevant to assessing parenting dimensions.

Coffman, S., 1992. Parent and infant attachment: Review of nursing research 1981–1990. *Pediatric Nursing* 18:421–425.

Glascoc, F. P., 1991. Can clinical judgment detect children with speech-language problems? *Pediatrics* 87:317–322.

Due to concerns about children who *fail* developmental screenings, or whose parents did not initially express concern, recommendations were issued by the American Academy of Pediatrics:

1. Administer a sensitive, standardized screening at least once during the preschool years.
2. Elicit parents' concerns about speech during every visit; when concerns are present, conduct a screening.
3. Conducting repeated screenings with children whose parents had unvalidated concerns may help detect subtle language problems.

Drotar, D., R. E. K. Stein, and E. C. Perrin, 1995. Methodological issues in using the Child Behavior Checklist and its related instruments in clinical child psychology research. *Journal of Clinical Child Psychology* 24:184–192.

Perrin, E. C., R. E. K. Stein, and D. Drotar, 1991. Cautions in using the Child Behavior Checklist: Observations based on research about children with a chronic illness. *Journal of Pediatric Psychology* 16:411–421.

These two articles seek to describe some issues related to the application of the Child Behavior Checklist (CBCL) in research in clinical child psychology. The CBCL was developed to identify psychopathology, rather than describe or define children with more subtle or behavioral difficulties that are below the threshold for abnormal behavior on these instruments.

Gopaul-McNicol, S., and J. Brice-Baker, 1998. *Cross-Cultural Practice*. New York: John Wiley and Sons, Inc.

This book reviewed the literature on cross-cultural parenting assessment. Within various chapters, the authors discuss the importance of understanding the special circumstances that immigrant parents face, and the cultural differences between immigrant parents and American parents.

Rutter, M., 1995. Clinical implications of attachment concepts. Retrospect and prospect. *Journal of Child Psychology and Psychiatry and Allied Disciplines* 36:549–571.

This article reappraised key features of attachment theory and the extent to which they have been supported by research findings. Rutter reviewed 13 issues in attachment theory. Clinical issues were discussed.

Seifer, R., and M. Schiller, 1995. Caregiving, cultural, and cognitive perspectives on secure-based behavior and working models. New growing points of attachment theory and research. In E. Waters, B. E. Vaughn, G. Posada, and K. Kondo-Ikemura (Eds.). *Caregiving, Cultural, and Cognitive Perspectives on Secure-Based Behavior and Working Models*, vol. 60, pp. 146–178.

This chapter reviews attachment, temperament, and related theories. Important points include: the observation that secure-based behavior is an important theoretical concept, but it has not been adequately validated through multi-method approaches in research; questioning whether the same construct is being measured under stress and non-stress conditions; asking which form of attachment is more theoretically important if they are different constructs.

Taylor, D. K., and C. Beauchamp, 1988. Hospital-based primary prevention strategy in child abuse: A multilevel needs assessment. *Child Abuse and Neglect* 12:343–354.

The authors observed mothers putting their children to bed and rated the frequency and intensity of talk to the child and use of visual and tactile stimulation. The authors also discussed assessment of multiple levels of the child's environment, the mother–child relationship, community/social support, and cultural expectations. Parental competency was assessed with an open-ended questionnaire.

Trickett, P. K., and E. J. Susman, 1988. Parental perceptions of child-rearing practices in physically abusive and nonabusive families. *Developmental Psychology* 24:270–276.

Wilkinson, I., M. B. Barnett, L. Delf, and V. Pirie, 1988. Family assessment: Development of a formal assessment system in clinical practice. *Journal of Family Therapy* 10:17–32.

The articles describe the development of a family assessment, as well as potential problems in developing and applying the system.