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AUTHOR Hoge, Robert D.; Wichmann, Cherami
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ABSTRACT

Noting that reliable and valid measures of competence are essential for preschool screening, diagnostic, and research purposes, this review for practitioners and researchers presents an inventory and evaluation of standardized measuring instruments designed for assessing social and emotional competence in preschool children. A total of 39 instruments, presented in alphabetical order, are reviewed. Instrument types include Q-sort, behavioral checklists, and interview ratings. Each instrument is described in terms of: (1) background information (including type of instrument and target population); (2) scoring format; (3) evaluative information (normative data, reliability, validity, and other considerations); and (4) summary comments. The most recent addresses for information about the instrument are also presented. An overview of theoretical and methodological issues relating to the measures is included. Contains 138 references. (WP)

AN EVALUATIVE REVIEW OF INTERVIEW AND RATING/CHECKLIST INSTRUMENTS FOR ASSESSING SOCIAL/EMOTIONAL COMPETENCE IN PRESCHOOL CHILDREN

ROBERT D. HOGE AND CHERAMI WICHMANN

CARLETON UNIVERSITY

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ABSTRACT

An inventory and evaluation of standardized measuring instruments designed for assessing social and emotional competence in preschool children is presented. The focus is on interview and judgmental measures, with the latter including rating and checklist instruments. The report has been prepared as a guide for practitioners and researchers. A basic premise of the report is that reliable and valid measures of competence are essential for screening, diagnostic and research/evaluative purposes. Interview, rating and checklist instruments were selected for review only if psychometric information was available for them and they were accessible to practitioners and researchers. Each instrument is described in terms of (a) background information (including type of instrument and target population); (b) scoring format; (c) evaluative information (normative data, reliability, validity, and other considerations); and (d) summary comments. The most recent address for information about the instruments is also presented. A brief overview of theoretical and methodological issues relating to the measures is included, as are some cautions regarding their use.

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An Evaluative Review of Interview and Rating/Checklist Instruments for Assessing Social/Emotional Competencies in Preschool Children

INTRODUCTION

This report presents an inventory and evaluation of standardized measuring instruments designed for assessing social and emotional competencies in preschool children. The focus is on interview and judgmental measures, with the latter including rating and checklist instruments.

The range of social/emotional functioning dealt with in these measures is quite broad. Most are behavioural in orientation and tap such dimensions as aggressiveness, anxiety, dependence, attentiveness, etc. Still others are designed to yield scores for broader categories of emotional functioning or mental disorder; examples include attention-deficit-disorder, conduct disorder, depression and hyperactivity. Other instruments are scored in terms of social competence dimensions such as acceptance, popularity or social withdrawal. Finally, in a very few cases the focus is on positive social/emotional functioning.

As we will see, these instruments are employed for a variety of purposes. First, they are often used as screening instruments for the identification of early signs of poor social or emotional functioning. Second, they are sometimes used for the collection of information that will be used to form a diagnosis of a specific emotional, social or behavioural disorder. Third, the instruments have wide use in research and evaluation contexts where measures of children's social/emotional functioning play critical roles.

It should be acknowledged that considerable progress has been made in the development and refinement of interview and judgmental measures for use with school-aged children. However, as Paget and Nagle (1986) note, preschool children present special assessment problems, and the uncritical application at this level of instruments developed for older children may not be appropriate. Our focus, then, is on instrumentation specifically adapted for the preschool level.

ASSESSMENT AND THE DECISION PROCESS

The goal of assessment in the preschool setting has been outlined as follows by Paget and Nagle (1986):

> The general objective of assessment in educational settings is to make appropriate decisions about children that will facilitate their educational and psychological development. Within preschool settings, assessment activities are clearly allied with different levels of preventive or early intervention programming.
>
> (pp. 155-156)

This statement is important because it emphasizes that any assessment activity should have a clear purpose and should be related logically to decisions with which it is linked.

What are these decisions? There is actually a continuum, ranging from informal, transitory types of decisions to those having far reaching consequences for the child. At one extreme, then, are those day-to-day decisions to encourage more social interactions for a withdrawn child, provide an anxious child with a little more attention, spend some time with another on counting skills, etc. At an intermediate point on this continuum are those decisions that begin to involve others, as, for example, where a decision is made to discuss with the parent increasing aggressive behaviour on the part of their child. At the other extreme, then, are those decisions which have more permanent and far-reaching consequences for the child; examples would include decisions to refer the child for psychological assessment, to move the child to a special school, to initiate a therapeutic program for the child. Our

point is that these decisions are always based on assessments of the child's functioning and needs. Those assessments are sometimes formal and sometimes informal, but they are always involved in the decision process.

THE NEED FOR ASSESSMENTS AND INTERVENTIONS AT THE PRESCHOOL LEVEL

It must be acknowledged that there exists some resistance to the notion of assessment at the preschool level (see, for example, Boyle, 1991; Wang, 1989). There are several sources for this resistance. First, there is the position that our understanding of preschool development is too incomplete to be able to make meaningful projections to future adjustment. Second, there are fears about the undesirable consequences of labeling children as handicapped, disabled or at-risk. Third, there is the argument that focusing attention on social/emotional deficits in the child detracts attention from the need to (a) ameliorate the conditions giving rise to the deficits and (b) develop primary prevention efforts.

There is some truth to all three of these reservations, but our position is that there are some conditions under which the social or emotional functioning of the child constitutes cause for concern and where interventions of some sort must be considered. It is appropriate to note as well that there are those who feel that we should be devoting more attention and resources to assessment and intervention activities at the preschool level, particularly with respect to social and emotional competencies. The importance of the early identification and remediation of motor, perceptual or cognitive deficits has long been recognized. It is only recently, however, that increased concern has been paid to deficits in the social and emotional areas.

Much of this increased concern for social/emotional functioning arises from a growing body of research demonstrating that early social and emotional deficits are associated under some circumstances with later problems of adjustment. Much of this research has been based on follow-ups of children first studied at 4 or 5 years (e.g., Koot & Verhulst, 1992; Offord et al., 1992; Stagner, Achenbach & McConaughy, 1993), but there are by now several studies demonstrating links between social and emotional adjustment during the preschool years and later adjustment (e.g., Campbell, 1994; Fischer, Rolf, Hasazi & Cummings, 1984; Richman, Stevenson & Graham, 1982). Also relevant is the increasing body of research showing that early interventions such as head start can be effective in remediating social/emotional deficits, and that the remediation is associated with improved future functioning (cf. Price, Cowen, Lorion & Ramos-McKay, 1989; Zigler, Taussig & Black, 1992).

It is interesting to observe that considerable progress has been made in the United States toward the development of programs for the identification and treatment of preschool aged children who are at-risk because of social and emotional deficits. This is represented in Public Law 99-457 which mandates services for such children. Similar provisions have been made in the Education Act (1981) in the United Kingdom.

However, efforts to regularize the assessment and treatment of handicapped preschool children in Canada are relatively less developed (Canning & Lyon, 1989). Where efforts have been made they are generally applied to children with physical handicaps or developmental delays. The remediation of social/emotional/behavioural deficits has been generally neglected, though important starts have been made through research programs linked with the Brighter Futures program of the Children's Mental Health Unit of Health and Welfare Canada and Ontario's Better Beginnings, Better Futures program.

USES OF ASSESSMENT INFORMATION

Assessments are always associated with decisions, but there are several different ways in which they can be employed.

Assessments are used under some circumstances for screening purposes. In this case they are employed to assess strengths and deficits that might be associated with present or future adjustment.

This is also referred to as risk assessment. Examples would include the use of a psychological test for detecting a cognitive deficit, a teacher rating measure designed to assess the presence of signs of emotional problems, observations of parent-child interactions designed to yield information about dysfunctional parenting practices. Under some circumstances these screening assessments would be directly linked with intervention decisions, but generally they would lead to more thorough assessments. That is, where risk factors are detected through the screening, diagnostic assessments would be conducted to confirm and refine the initial conclusions.

A second purpose of assessments involve diagnostic activities. Paget and Nagle (1986) define this as follows:

> The main objective of diagnostic testing is to determine the presence or absence of a problem, ascertain the child's strengths and weaknesses, and to decide what services or interventions are required in order to meet the individual needs of the child.
>
> (p. 156)

A language expert's detection of a specific speech deficiency from a battery of language tests and a psychologist's conclusion from a structured interview that a child is exhibiting signs of attention-deficit disorder represent examples of diagnostic assessments. There is, of course, overlap between screening and diagnostic activities, though the latter is generally more systematic and thorough than the former.

Diagnostic assessments should always be conducted before decisions about interventions or placement. They may also be utilized during the course of treatment to assess the progress of the intervention. It is important at this point to note as well that the link between assessments and decisions is not necessarily a simple one. We will address this issue is more detail below.

A third purpose of assessment activities relates to research and evaluation. There are many circumstances under which information about the attributes of children are required in these contexts. For example, research on the factors associated with aggressive behaviours in young children depend on reliable and valid indices of aggression. Similarly, evaluations of the effectiveness of head start types of programs depend on assessments of the cognitive, social and emotional functioning of the children before, during and after the interventions. Unfortunately, much evaluation research at the preschool level has yielded inconclusive results because of the absence of adequate assessment tools.

FORMS OF ASSESSMENT INFORMATION

A child care worker's perception that a child is having particular difficulty with classification tasks, scores from a parent checklist indicating high levels of anxiety behaviours, a child psychologist's opinion that a child is exhibiting signs of attention-deficit-disorder, a score from an observation schedule indicating frequent acts of aggression all represent examples of assessment information. As these examples make clear, though, the basis for the information differs in some important respects.

First, there are differences in the source of the information: psychological test, child care worker, parent, clinician, researcher. A point to keep in mind is that all of these sources are capable of providing important information about the attributes and behaviours of the child, though they tend to bring different perspectives to the assessment process (cf. Achenbach, McConaughy & Howell, 1987).

Second, the assessments differ with respect to the extent to which the collection and processing of the information has been systematized. The informal observations, perceptions and judgments routinely employed in interacting with children generally represent unsystematic assessments (though they may be based on considerable experience with children). Clinical judgments may vary in terms of this dimension. In many cases these are based on very informal procedures of data collection and interpretation, while in other cases they may be based on more standardized sources of information or may employ a diagnostic system such as DSM-IIIR. Finally, there are the so-called standardized measures. This group includes instruments in which the collection and scoring of information has been formalized or standardized. Included in this category are psychological tests, observation schedules,

interview schedules and judgmental measures (rating scales, behavioural checklists). The primary concern in this review is with the latter two types of measures.

CRITERIA FOR EVALUATING INSTRUMENTS

There are several models available for evaluating assessment instruments, but the psychometric model is the one most commonly employed. This model provides two primary bases for evaluating assessments, reliability and validity. Three other bases for evaluation are also considered: availability of normative data, administrative efficacy and appropriateness.

NORMATIVE DATA

Norm scores reflect the scores of a representative sample of children. Much of the value of standardized IQ tests arises from the fact that we can interpret the scores of an individual with reference to the test performance of a large group of children at the same age level. As we will see, normative data are available for some of the measures of social/emotional competence with which we will be dealing, particularly those with a behavioural focus.

Normative data are of value where using these instruments for clinical purposes since they can provide information about where the child's behaviour stands relative to the behaviour of a large sample of children. They provide, in a sense, some standard of "normality". It should be noted, though, that the value of the normative information depends on the nature of the group on which it is based.

RELIABILITY

Reliability has reference to the stability or consistency of the measure. The test-retest, inter-rater agreement and internal consistency procedures are the methods most often used in assessing reliability. Reliability is an essential condition in a measure and must be established before an assessment procedure can be considered of value.

VALIDITY

Validity is a somewhat more complex concept, but it refers generally to the meaningfulness and utility of a measure. Content, construct and criterion-related validity are the forms most commonly encountered.

Content validity refers to the extent to which the instrument represents the construct being assessed. Do the items of the IQ test provide complete coverage of the domain of intelligence; does the content of the observational measure of aggressive behaviour reflect our definition of aggression; do the items from the teacher rating measure of hyperactivity reflect our understanding of this condition? Content validity is an important first step in evaluating a psychological measure, but it is less systematic than the other two.

Construct validity refers to the theoretical meaning of a measure, or, to use a familiar but awkward definition, the extent to which a measure measures what it says it is measuring. We ask, for example, just what is the meaning of a score from an IQ test; or, to what extent does that score actually reflect intelligence. To take another example, we can ask to what extent a behavioural checklist yielding a score labeled anxiety is accurately measuring that construct.

Procedures for evaluating construct validity usually involve relating scores on a measure to independent measures of the same construct. For example, aggression scores from an observational schedule would be related to aggression scores based on teacher ratings.

It must be acknowledged that we often encounter problems in assessing the construct validity of these measures of social/emotional functioning (see, for example, Boyle, 1991; Hoge & Andrews, 1992). The main problem relates to the fact that in many cases the constructs with which we are dealing (e.g.,

conduct disorder, attention-deficit-disorder, temperament) are not well defined. We will return to this problem later in the paper.

Criterion-related validity reflects the extent to which scores on a measure relate to some criterion of performance or adjustment. The ability of scores on an IQ test to predict school grades; the extent to which an observational measure of aggression relates to social acceptance in the preschool; the ability of scores from a teacher rating measure of attention-deficit-disorder to predict later school adjustment all reflect criterion-related validity. This form of validity is particularly important in the case of the measures with which we are interested. The use of them as screening or diagnostic instruments is based on their ability to predict current or future problems of adjustment. Criterion-related validity data speaks directly to that issue.

ADMINISTRATIVE EFFICACY

Another base for assessing these measures relates to administrative efficacy. This is based on a variety of considerations relating to the cost of the measures, the time involved in administration and the amount of difficulty associated with administering and scoring the instruments.

APPROPRIATENESS

Still another broad base for assessing the measures concerns appropriateness or acceptability. Reliability and validity are essential conditions in a measure, but it is also important to insure that all stakeholders (child care workers, parents, administrators) perceive the measures as relevant to the needs of the child. This is sometimes a particularly difficult issue where dealing with minority groups, but it is essential.

THE IMPORTANCE OF SYSTEMATIC AND PSYCHOMETRICALLY SOUND ASSESSMENTS

There will always be a role for informal, routine types of assessments in the preschool setting. Day-to-day management of children depend on these. However, in the case of decisions having longer term consequences for the child there is no substitute for systematic and psychometrically sound assessments.

There are two senses in which these are important. First, the quality of decisions vary with the quality of the information on which they are based. Decisions to refer a child to a special treatment group or to develop a therapeutic program are based on assessments indicating that, unless there is some intervention, the child will encounter difficulties later on. Our confidence in making these projections is enhanced where they are based on information from instruments with demonstrated reliability and validity.

Second, the ability to demonstrate that decisions are based on psychometrically sound assessments is important from the point of view of explaining the decisions to parents and others affected by the decisions about the child. The day when professionals could simply announce to the parent their decision about the child fortunately is now over.

It is interesting to observe that increasing efforts have been made to formalize the assessment and decision processes in the case of school-aged children. A good example is the situation in Ontario where Bill 82 of the Education Act mandates that children with exceptionalities will be identified and provides guidelines regarding the way in which placement and instructional decisions are to be made. These guidelines indicate among other things that the processes will be based on systematic assessments. Another example of this type of effort is represented in the Principles for Fair Student Assessment Practices for Education in Canada developed by a consortium of national educational and psychological associations.

Similar efforts to regularize the assessment and decision process at the preschool level have been made in the United States with Public Law 99-457 and in the United Kingdom with the Education Act

(1981) However, there have been fewer efforts of this sort in Canada except those made in connection with programs for certain groups of handicapped children.

LINKING ASSESSMENT AND DECISION ACTIVITIES

Scores from individual assessment instruments are sometimes directly linked with decisions about the client. One example would be where all children scoring below a certain point on an IQ test are automatically referred for more thorough assessments. Another example involves a diagnostic assessment where all children receiving a diagnosis of "socially withdrawn" from a behavioural checklist completed by the child care worker would be placed in a program designed to enhance social skills.

These two examples illustrate an important point regarding the link between assessments and decisions. Where the decisions have minor consequences or involve referrals for more thorough assessments, information from a single instrument or source is sometimes sufficient. However, decisions that involve labeling the child or special placements or referrals for treatment should never be based on a single assessment instrument. The second example illustrates such a case. The diagnosis of "socially withdrawn" is a serious one and the act of placement is one with some serious implications. This type of decision should never be based on information from a single source but, as far as possible, be based on a variety of systematic sources of information.

The need for utilizing multiple sources of information is also represented in Paget and Nagle's (1986) notion of the multidimensional nature of preschool assessment. Their point is that placement and therapeutic decisions about the child should be based on a broad assessment of their attributes and situation, and no single source of information will be sufficient to encompass that range. Useful models for forming effective assessment-decision links have been presented by Bagnato and Neisworth (1991) and Feil, Severson and Walker (1994).

TERMS OF THE REVIEW

The goal of the project is to identify and evaluate interview and judgmental instruments appropriate for assessing social and emotional competence in preschool-aged children. The information about the instruments and their properties was gathered through a literature search which was based initially on the PsychLit and ERIC systems. Publisher catalogues and the various test review publications (e.g., Test Critiques) were also utilized.

An effort was made to include in the survey all instruments appropriate for use with children between 2 and 6 years of age and for which some supporting psychometric data are available. A number of instruments were excluded because there seemed to be no supporting data or, in some cases, there were no references to the instrument for the past 10 or 15 years. It is likely as well that numerous instruments were not discovered because reference to them had not appeared in the published literature. A similar problem exists with respect to psychometric information relevant to the instruments. Many reports of reliability and validity information are embedded in studies focusing on substantive issues, and that information is not easily identified through the standard literature search procedures. One final limitation of the survey needs to be noted at this point. Much of the evaluative information about the instruments is provided in manuals. Not all manuals were available to us, and, in those cases, our citation of information in manuals is based on secondary sources.

The review of the instruments is organized as follows. First, there is a brief description of the instrument, its nature and the ages for which it is designed. This is followed by a description of the scoring format used with the measure. A summary of evaluative information is then presented. This includes information about norm scores, reliability, and validity. The issues of administrative efficacy and appropriateness are addressed under the heading Other Considerations. It should be noted that the review of reliability and validity is not designed to be comprehensive. Rather, the intention was to illustrate the type of psychometric information available for the instruments used at the preschool level.

The presentation of the evaluative information is followed by some brief summary comments and by an address from which additional information about the instruments may be obtained; these were based on the latest information available to us. It should be noted that many of these instruments are copyrighted and should be used only with the permission of the author or publisher. A complete list of the instruments included in the review may be found in Appendix 1.

REVIEW AND EVALUATION OF INSTRUMENTS

BAUMRIND PRESCHOOL BEHAVIOR Q-SORT

Background:

This Q-Sort measure involves 72 cards with descriptions of child social behaviours. The teacher or child care worker is to indicate how well each item describes the child (rating from "extremely characteristic" to "extremely uncharacteristic"). The instrument was first described by Baumrind (1968).

Scoring Format:

Several different scoring formats have been developed. Baumrind's (1968, 1971) original scoring involved six dimensions: friendliness, cooperativeness, tractability, purposfulness, dominant/leader, and independent. Roberts (1987), utilizing cluster analysis with data from a Canadian sample, identified 2 groups of factors: general competence (purposfulness, ego strength, and peer competence) and cooperative-task oriented (friendliness, cooperativness, and achievement oriented)

Evaluation:

Normative Data. We were not able to find any reports of normative data.

Reliability. Reliability information is somewhat sketchy. Roberts (1987) reported inter-rater agreement, and Denham and Holt (1993) reported on a 1 year test-retest reliability of this measure.

Validity. The only validity information we were able to find was that reported by Denham and Holt (1993) who correlated the Preschool Behavior Q-Sort with the scales of the Preschool Behavior Questionnaire.

Other Considerations. This measure would appear to meet the criteria of administrative efficacy and appropriateness.

Comments:

This instrument derives from a solid theoretical background, but there appears to be relatively little psychometric data available for it.

Source:

D. Baumrind, Institute of Human Development, University of California, Berkley, CA 94720.

BEHAVIOR PROBLEM CHECKLIST

Background:

This is a well established instrument developed by Quay and Peterson (1979). It is in the form of a behavioural checklist designed for use by parents, teachers or others in contact with the child. Considerable efforts have been made over the years to evaluate and refine the instrument. A revision of the instrument has recently appeared (see Revised Behavior Problem checklist below), but the original version is still in use. The measure is primarily designed for use with school-aged children (5 and older), but it has been used with younger children and modified versions suitable for the preschool level have been developed by Harper and Richman (1979) and O'Donnell and colleagues (O'Donnell, Stein, Machabanski & Cress, 1982; O'Donnell & Van Tuinan, 1979).

Scoring Format:

The measure yields four factor scores: conduct problems; personality problems; inadequacy-immaturity; and socialized delinquency. Somewhat modified formats for the preschool level have been presented by Harper and Richman (1979) and O'Donnell and colleagues (O'Donnell et al., 1982; O'Donnell & Van Tuinan, 1979).

Evaluation:

Normative Data. Norm scores are available for children K to grade 6 (Quay and Peterson, 1979). Gayton, Thornton, and Bassett (1982) have reported scores for the preschool level.

Reliability. Extensive reliability evaluations have been reported for school-aged children. O'Donnell and Van Tuinan (1979) have reported moderate levels of inter-rater agreement coefficients for the preschool level.

Validity. Numerous evaluations of validity have been made with data from school-aged children. Gayton et al., (1982) provided some support for the construct validity of the instrument with preschool-aged children.

Other Considerations. This instrument would appear to meet the criteria of administrative efficacy and appropriateness, though modification of some items are necessary to accommodate the age difference.

Comments:

This version of the instrument has been replaced by the revision (see next measure)

Source:

H. Quay, Department of Psychology, University of Miami, Coral Gables, Florida 33124.:

BEHAVIOR PROBLEM CHECKLIST-REVISED

Background:

This revision of the earlier instrument is described by Quay and Peterson (1983). It involves a revision of items, a new scoring system derived from factor analysis and new norms. The measure has been developed and evaluated for the most part with school-aged children. However, a modified version for use with preschool-aged children has been reported by Quay (1985) and Hinshaw, Morrison, Carte & Cornsweet, (1987).

Scoring Format:

The instrument yields six factor scores: conduct disorder; anxiety-withdrawal; socialized aggression; attention problem-immaturity; motor excess; and psychotic behaviour. However, the preschool modification described by Hinshaw et al. (1987) is scored in terms of four factors: conduct problem; social withdrawal; tension-anxiety; and attention problems.

Evaluation:

Normative Data. Preliminary normative data for the kindergarten level have been presented by Hinshaw et al. (1987).

Reliability. Extensive reliability evaluations have been reported for school-aged children, while some reliability indices for the kindergarten level have been presented by Hinshaw et al (1987)

Validity. Numerous evaluations of validity have been made with data from school-aged children and some preliminary assessments for the kindergarten level reported by Hinshaw et al. (1987)

Other Considerations. This instrument would appear to meet the criteria of administrative efficacy and appropriateness, though the modified version should be used with preschool-aged children to insure the items are appropriate for the age group.

Comments:

The Revised Behavior Problem Checklist is a sound instrument. Although primarily developed for school-aged children, it is expected that continuing efforts will be made to adapt it for the preschool level.

Source:

H. Quay, Department of Psychology, University of Miami, Coral Gables, Florida 33124.:

BEHAVIOR SCREENING QUESTIONNAIRE

Background:

This instrument was first described by Richman and Graham (1971) and was developed to assess problem behaviours in children between 3 and 6 years of age. It is termed a questionnaire, but it is actually an interview designed to be administered to mothers.

Scoring Format:

The 12 items on the questionnaire deal with a range of problems relating to concentration, control, dependency, etc. It can be scored in terms of individual items or a total behaviour problem score.

Evaluation:

Normative Data. Norms for samples of British children have been presented by Richman and Graham (1971) and Richman, Stevenson and Graham (1975; 1982); for United States samples by Earls (1980); and for Canadian samples by Minde and Minde (1977).

Reliability. Adequate levels of test-retest and inter-rater agreement coefficients have been presented by Richman and Graham (1971). The test-retest assessments were, however, based on a one-week interval.

Validity. Richman and Graham (1971) and Richman et al., (1975) have reported data supportive of the construct validity of the measure: scores did differentiate groups of clinic and non-clinic children.

Other Considerations. Some training in administering the questionnaire is required.

Comments:

Though some costs are associated with the use of this instrument (i.e., need for a trained interviewer), it is an instrument with some attractive features. These involve the fact that administration time is relatively short and the availability of norms for a variety of groups. However, additional reliability and validity data would be useful.

Source:

N Richman, Department of Psychological Medicine, Hospital for Sick Children, Great Ormond St., London, United Kingdom, WC1N 3JH. The interview form is available in Richman & Graham, (1971)

BEHAVIOR STYLE QUESTIONNAIRE

Background:

This instrument was designed to assess dimensions of temperament in children from 3-7 years. This rating scale was written to reflect the theoretical position of Thomas and Chess's New York Longitudinal Study (e.g., Thomas, Chess & Birch, 1968), and is completed by parents.

Scoring Format:

The questionnaire was written to reflect 9 dimensions of temperament: activity; rythmicity; persistence; approachability; adaptability; distractibility; intensity; mood; threshold. Children are assigned to a profile based on their scores on several scales, the profiles are: easy, slow-to-warm up, intermediate low, intermediate high, and difficult.

Evaluation:

Normative Data. Norms scores on a sample of children 3 to 7 years of age from a pediatric practice are available (McDevitt & Carey, 1978).

Reliability. McDevitt & Carey, (1978) have reported internal consistency and test-retest reliability. Others have reported various forms of supporting reliability data as well (e.g., Gibbs, Reeves & Cunningham, 1987).

Validity. Initial validity data was presented by McDevitt and Carey (1978), who provide evidence for construct and predictive validity. Other researchers have also addressed the validity of this measure (e.g., Wolfson, Fields and Rose, 1987)

Other Considerations. This measure would appear to meet the criteria of administrative efficacy and appropriateness.

Comments:

The BSQ takes about 25 minutes to administer and about 15 minutes to score. This instrument is widely used in research, however, there are some questions regarding construct validity (see for example Gibbs et al., 1987).

Source:

W. Carey, 319 W. Front St., Media, PA, 19063, USA

BURKS BEHAVIOR RATING SCALE: PRESCHOOL AND KINDERGARTEN

Background:

This rating scale was designed to assess the social and emotional functioning of young children from 3-6 years (Burks, 1981). It is a commercially available normed checklist designed for completion by teachers.

Scoring Format:

The scale yields 18 subscales, including: excessive anxiety; excessive withdrawal; excessive dependency; poor ego strength; poor physical strength; poor coordination; poor intellectuality; poor attention; poor impulse control, poor reality control; poor sense of identity; excessive suffering; poor anger control; excessive sense persecution; excessive aggression; excessive resistance; poor social conformity. These subscales cluster further into major categories: aggression, inhibition and inattention. Scores on each of the 18 factors falls into one of three categories (ranges) "not significant"(normal), "significant", or "very significant".

Evaluation:

Normative Data. Normative data is available in the manual for children 3-6 years of age.

Reliability. Adequate reliability data has been provided in the manual. Burks (1981) has addressed several forms of reliability including inter-rater, internal consistency and test-retest.

Validity. The manual reports limited validity data. Additionally, some reports of support for validity has been reported elsewhere (e.g., Beare and Lynch ,1986).

Other Considerations. It would appear that this measure meets the administrative efficacy and appropriateness criteria. However, it may take some training to accurately score and interpret the data.

Comments:

This commercially available measure seems to be well designed, although validity issues need to be addressed further. Additionally, there is little use of this measure by the research community, and thus few alternate sources of information on this measure.

Source:

Western Psychological Services, 12031 Wilshire Blvd., Los Angeles, CA 90025.

CALIFORNIA CHILD Q-SET

Background:

The California Child Q-Set was developed by Block and Block (1980) to assess ego resiliency and ego control and the relation to psychopathology in children 3 to 7 years of age. This instrument is for completion by teachers

Scoring Format:

This Q-Sort utilizes a forced choice format (9 categories) which yields two scores: ego resiliency - which is unipolar(hig her scores means higher resiliency); and ego control -which is bipolar (higher positive scores is greater under control, and negative scores is greater overcontrol)

Evaluation:

Normative Data. We were unable to locate norm scores, although they may be reported in the manual.

Reliability. We assume that reliability estimates would be presented in the manual.

Validity. We assume that validity estimates would be presented in the manual. Some estimates of validity have been presented elsewhere (e.g., Wolfson et al., 1987).

Other Considerations. This instrument would appear to meet the criteria for administrative efficacy and appropriateness.

Comments:

Little information has been made available about the instrument outside of the manual, but if ego strength and resiliency are a focus of assessment, this measure would appear to merit further investigation.

Source:

J. Block, Department of Psychology, University of California, Berkley, CA 94720.

CALIFORNIA PRESCHOOL SOCIAL COMPETENCE SCALE

Background:

The California Preschool Social Competence Scale was designed to measure interpersonal behaviour and social responsibility (Levine, Elzey & Lewis, 1969). This scale is intended for children 2-6 years of age and is scored on teacher ratings.

Scoring Format:

The factor structure of this measure has not been published by the authors, but three subscales have been reported: considerateness; task orientation; extroversion (Flint, Hick, Horan, Irvine & Kukuk, 1980).

Evaluation:

Normative Data. The manual has provided norms based on age and sex.

Reliability. Levine et al., (1969) reported inter-rater reliability. Estimates of internal consistency, stability and inter-rater reliability have been reported elsewhere (e.g., Ladd & Price, 1987).

Validity. We assume that validity estimates would be provided by the manual. Additional support for construct validity have been reported elsewhere (e.g., Ladd & Price, 1987).

Other Considerations. It would appear that the criteria of administrative efficacy and appropriateness have been met.

Comments:

This instrument was created in the late 60's so it lacks contemporary norms.

Source:

Consulting Psychologist Press, 577CollegeAve., Palo Alto, CA 94306.

CHILD ACTIVITY RATING SCALE

Background:

The scale was designed as a screening instrument for the early assessment of school adaptation problems with particular attention to behavioural/emotional problems (Cowen, Dorr, Clarfield, Kreling, McWilliams, Pokracki, Pratt, Terrell, & Wilson, 1973). The scale is designed for completion by

teachers or teacher aides The instrument was primarily designed for school aged children, though it has been used with preschool ages.

Scoring Format:

The scale yields a total problem score and three subscores: aggression/acting out, mood/internalized and learning disabilities.

Evaluation:

Normative data. Norm scores are available for children 5-years and older, but not for younger children. Carberry and Handal (1980) report that the data for 4 year olds is similar to that for children in kindergarten.

Reliability. Considerable reliability information is presented based on children 5-years and older (e.g., Cowen et al., 1973), but data based on preschool-ages are more scarce (e.g., Carberry & Handal, 1980).

Validity. Cowen et al. (1973) have presented construct and criterion-related validity data for older children. Carberry and Handal (1980) provide the only validity data we were able to find for preschool children.

Other Considerations. This instrument would appear to meet the criteria for administrative efficacy and appropriateness.

Comments:

Considerable work has gone into the development and evaluation of this instrument for use with school-aged children. This measure has the advantage of being brief, objective, and concise. However, relatively little information is available to support its use with preschool aged children.

Source:

Emory L Cowen, Centre for Community Study, University of Rochester, 575 Mount Hope Ave., Rochester, New York, 14627.

CHILD BEHAVIOR CHECKLIST/4-16

Background:

The instrument is designed for assessing social competence and behavioural pathology in children between 4 and 16 years (Achenbach & Edelbrock, 1983). It is completed by parents and entails two formats, rating scales and behavioural checklist items. A version of the instrument appropriate for younger children is described below. Also part of this family of instruments are a teacher form of the checklist, an observation schedule and a self-report instrument.

Scoring Format:

The social competence facet is scored in terms of two dimensions, the first having to do with participation in activities and the second with friendship patterns. The behavioural pathology facet derives from the checklist. A separate scoring protocol is used for boys and girls and for three age groups (4-5 years, 6-11 years, 12-16 years). The factor scores for 4-5 year old girls are as follows: somatic complaints, depressed, schizoid/anxious, social withdrawal, obese, aggressive, sex problems and hyperactive. The factor scores for 4-5 year old boys are as follows: social withdrawal, depressed,

immature, somatic complaints, sex problems, schizoid, aggressive and delinquent. The scale also yields a total score and two broad-band scores labeled internalizing and externalizing.

Evaluation:

Normative Data. Norms based on representative samples of clinically referred and nonreferred children are available.

Reliability. Extensive reliability evaluations have been reported in the manual (Achenbach & Edelbrock, 1983) and elsewhere (e.g., Verhulst, Akkerhuis & Althaus, 1985). Test-retest, inter-rater agreement and internal consistency values appear more than adequate.

Validity. A number of studies supporting the construct and criterion-related validity of the instrument have been reported in the manual and elsewhere (e.g., Hinshaw, Han, Erhardt, & Huber, 1992; Webster-Stratton, 1988)

Other Considerations. The rating scales and checklist items are relatively straightforward, though a fairly high level of reading competence is called for. The scoring of the instrument is highly standardized, but some level of expertise is required in calculating and interpreting the factor scores.

Comments:

Though the instrument is primarily developed for school aged children, there is much to recommend its use with 4, 5, and 6 year olds. Great care has gone into the development and refinement of the instrument for the 4 to 16 age range, and it can be said to represent the state-of-the-art at the moment. Adding to its value are the existence of the parallel instruments noted above. There are several translations of the CBCL in use. For example a Dutch version (e.g., Verhulst, Koot & Berden, 1990; Verhulst & Van der Ende, 1992) and a Hispanic version (e.g., Bird, Canino, Gould & Ribera, 1987; Rubio, Bird, Canino & Gould, 1990) have been among the versions presented in the literature.

Source:

Guidance Centre, The Ontario Institute for Studies in Education, 712 Gordon Baker Rd.., Toronto, Ontario M2H 3R7. (The address in the U.S. is University Associates in Psychiatry, Department of Psychiatry, University of Vermont, Burlington, VT 05401)

CHILD BEHAVIOR CHECKLIST/2-3

Background:

This is the downward extension of the Child Behavior Checklist/4-16. The resultant measure shares 57 items with the 4-16 version. It is primarily designed for completion by parents, though it is also appropriate for use by teachers or child care workers (Achenbach & Edelbrock, 1986; Achenbach, Edelbrock & Howell, 1987). The instrument contains checklist items for assessing behavioural pathology.

Scoring Format:

The instrument yields a total pathology score, two broad-band scores (internalizing and externalizing) and six narrow band scores: social withdrawal, depressed, sleep problems, somatic complaints, aggression and destructive.

Evaluation:

Normative Data. Norm scores derived from clinical and non-clinical samples are available. These are based on parent data; norms for scores provided by teachers or others are not yet available.

Reliability. Adequate levels of test-retest and inter-rater agreement coefficients are reported in the manual and elsewhere (e.g., Achenbach et al., 1987; Crawford & Lee, 1991)

Validity. Several tests supportive of construct and criterion-related validity are reported in the manual.

Other Considerations. A relatively high level of reading competence is called for on the part of the parent and a certain amount of expertise required for scoring and interpretation. Otherwise the instrument meets the criteria of administrative efficacy and appropriateness.

Comments:

This instrument is more recent that the Child Behavior Checklist/4-16 and has received less research attention. However, it is a sound measure and deserves consideration where a parent based measure of social competence and emotional pathology is required.

Source:

Guidance Centre, The Ontario Institute for Studies in Education, 712 Gordon Baker Rd.., Toronto, Ontario M2H 3R7. (The address in the U.S. is University Associates in Psychiatry, Department of Psychiatry, University of Vermont, Burlington, VT 05401).

CHILDREN'S BEHAVIOR FORM

Background:

The Children's Behavior Form (CBF) was created as a developmental screening instrument for preschool aged children at risk for psychosocial and educational dysfunction (Lorion, Barker, Cahill, Gallagher, Passons & Kaufki, 1981). This measure was designed for completion by teachers.

Scoring Format:

The scale yields 3 factors: aggressiveness; readiness to learn; and emotionality.

Evaluation:

Normative Data. Norm scores are available for a sample of children 36-65 mos. of age from preschool settings.

Reliability. The only form of reliability we were able to locate was internal consistency values for the factor and total scores, reported to be acceptable by Lorion and colleagues (1981).

Validity. The only form of validity we were able to find reported was discriminant; Lorion et al. (1981) found that this scale discriminates between normal and children who were perceptually and emotionally handicapped.

Other Considerations. This scale seems to meet the criteria for administrative appropriateness and efficacy.

Comments:

This measure is short and concise, and is based on prior research with AML, CARS and case descriptions. However, there does not seem to be a lot of utilization of this measure by the research community, therefore psychometric data are scarce.

Source:

Raymond P. Lorion, Department of Psychology, University of Tennessee, Knoxville Tennessee, 37916.

COLORADO CHILDHOOD TEMPERAMENT INVENTORY

Background:

This measure is targeted at children 1-7 years of age and is completed by the parent (Rowe & Plomin, 1977a). The inventory was designed to identify genetic components of temperament in twins.

Scoring Format:

The scale was devised to reflect 6 dimensions of temperament: attention-span persistence; reaction to food; soothability; emotionality; sociability; emotionality; sociability; and activity.

Evaluation:

Normative data. The measure was tested on twins from 1 to 7 years of age. Data are presented for the age groups 1 to 3 and 4 to 7.

Reliability. Internal consistency and test-retest reliability analyses have been presented by (Palisin, 1986; Rowe & Plomin, 1977a,b).

Validity. Construct validity has been shown with measures of cognitive functioning (Palisin, 1986) and the Eyberg Child Behavior Inventory (Webster-Stratton & Eyberg, 1982).

Other Considerations. This measure would seem to meet the criteria of administrative efficacy and appropriateness.

Comments:

The measure has been developed from a sound theoretical base, but psychometric data are scarce.

Source:

David C Rowe, Department of Psychology, Muenzinger Building, University of Colorado, Boulder, Colorado 80302.

CONNORS PARENT AND TEACHER RATING SCALES-REVISED

Background:

These measures were developed as abridged versions of the Connors Scales, they address maladaptive behaviours in children from 3 to 17 years of age at home (parent measure) and at school (teacher measure; Goyette, Connors & Ulrich, 1978). The hyperkinesis index which is 10 identical items for teacher and parent to complete provides an additional assessment of hyperactivity.

Scoring Format:

The parent scale yields five factors: conduct problem; learning problem; psychosomatic behaviour; impulsive-hyperactive behaviour; anxiety; hyperactivity. The teacher scale yields three factors: conduct problem; hyperactivity; inattentive-passive (learning problem).

Evaluation:

Normative Data. Norm scores are available based on a random sample of children from 3-17 years of age, by age and sex (Goyette et al., 1978).

Reliability. Goyette et al. (1978) have reported inter-rater reliability for the parent scale.

Validity. Goyette et al., (1978) have reported high coefficients of congruence between the original Connors scales and these abridged measures. However, again we were unable to locate other estimates of the validity. Additional validity data are presented in the manual for the original version (Connors, 1989).

Other Considerations. This measure would appear to meet the criteria for administrative efficacy and appropriateness.

Comments:

The scales represent improvements over the original versions in that they are shorter and more concise, and administration has been improved, making these instruments more appropriate as screening tools. As with other measures which are applicable to a wide age range, some items are inappropriate for younger children.

Source:

Multi-Health Systems Inc., P.O. Box 178, Newmarket, ON L3Y 4X1.

CRITICAL EVENTS CHECKLIST

Background:

This instrument constitutes one part of a three stage procedure for screening 3 to 5 year-old children exhibiting pathological behaviours. Walker, Severson and Feil (1993) describe three stages in the procedure: (a) teachers nominate children exhibiting internalizing or externalizing problems; (b) the Critical Events Checklist and a Combined Frequency Index is completed by the teacher for those nominated; and (c) observational data are collected. The system represents an adaptation of Walker and Severson's (1990) Systematic Screening for Behavioral Disorders procedure. The Critical Events Checklist assesses externalizing and internalizing behaviours. The Combined Frequency Index assesses teacher and peer related behaviours- both adaptive and maladaptive.

Scoring Format:

The Critical Events Checklist yields a critical events index score (denoting the presence of high intensity negative behaviours). The Combined Frequency Index yields an index of adaptive and maladaptive behaviours (denoting behavioural adjustment/competence).

Evaluation:

Normative Data. We were unable to locate norm scores for the measure, though norms for individual items have been reported for an earlier version of the instrument (Sinclair, Del' Homme & Gonzalez, 1993).

Reliability. Some preliminary reliability data have been reported, though they appear to be based on the use of the entire three stage procedure rather than the components (Feil, Severson & Walker, 1994; Walker et al., 1993).

Validity. The comments made with respect to reliability apply here as well.

Other Considerations. The instrument would appear to meet the criteria of administrative efficacy and appropriateness.

Comments:

The Critical Events Checklist is a relatively new instrument, and it requires additional psychometric evaluation. However, it appears to be a promising instrument for assessing pathology/competence. The larger three-stage procedure is also worth consideration where a thorough and efficient screening procedure is desired.

Source:

Herbert Severson or Edward G. Feil, Oregon Research Institute, 1899 Williamette St., Eugene, Oregon, 97401.

EARLY SCHOOL BEHAVIOR SCALE

Background:

This scale was developed to measure behaviour problems and competencies in children 4 to 7 years (Pianta, 1987). Parents are the respondents for this rating scale.

Scoring Format:

The scale yields 3 factor scores: competence; anxiety; and conduct problems.

Evaluation:

Normative Data. We were unable to locate norm scores.

Reliability. Internal consistency has been reported by Caldwell and Pianta (1991) for the factor and total scores.

Validity. We were able to find no validity data based solely on preschool children, although Caldwell and Pianta (1991) do report support for construct validity.

Other Considerations. This measure seems to meet the criteria for administrative efficacy and appropriateness.

Comments:

The advantage of this scale is that it includes a measure of the level of child competence that is absent in many other rating scales. Psychometric data may be contained in the manual.

Source:

Robert C Pianta, 147 Ruffner Hall, 405 Emmet St. Charlottesville, VA 22903

EASI

Background:

The EASI was developed by Buss and Plomin (1975), to assess children's temperament. This measure is completed by parents of children from 1 to 9 years.

Scoring Format:

This measure originally assessed 4 temperaments, but a revision in 1984 (Buss & Plomin, 1984) omitted impulsivity, leaving 3 dimensions: emotionality, activity and sociability.

Evaluation:

Normative Data. Normative data are presented by Buss and Plomin (1975, 1984).

Reliability. Estimates of reliability have been reported, including internal consistency, test-retest and inter-rater (e g., Buss & Plomin, 1975, 1984; Gibbs et al., 1987; Stevenson & Fielding, 1985).

Validity. We were unable to locate data on the validity of this scale, but we would assume that Buss and Plomin provided it in some of their literature (e.g., Buss & Plomin, 1975, 1984).

Other Considerations. This measure is much shorter than most temperament questionnaires which makes it easier to administer. This scale would seem to meet the criteria of administrative efficacy and appropriateness.

Comment:

Although it is used much less often than the measures based on the NYLS theoretical position (e.g., Behavior Style Questionnaire, Toddler Temperament Scale), it has been reported to be more conceptually and statistically sound than the others (Gibbs et al., 1987).

Source:

David C Rowe or Robert Plomin, Department of Psychology, Muenzinger Building, University of Colorado, Boulder, Colorado 80302.

EYBERG CHILD BEHAVIOR INVENTORY

Background:

The Eyberg Child Behavior Inventory (ECBI) was designed for therapists and researchers as an instrument to assess conduct disorders (Eyberg & Ross, 1978; Robinson, Eyberg & Ross, 1980). This behavioural inventory is for use with children 2-16 years. Parents are the respondents for this measure.

Scoring Format:

The rating of children on this instrument is twofold; whether or not the behaviour item is a problem and the intensity of the problem. Originally, there was no investigation of the factor structure, only Problem and Intensity scores were utilized. However, when the items were factor analyzed (Burns & Patterson, 1991), they distinguished problems in 3 separate areas: oppositional disorder; attention-

deficit hyperactivity disorder; and conduct disorder. The recent development of factor dimensions has not been utilized for reliability and validity studies as of yet.

Evaluation:

Normative Data. This measure was standardized on two different samples of children 2-17 years (Burns, Patterson, Nussbaum & Parker, 1991; Robinson et al., 1980).

Reliability. Internal consistency, split half, item to total, inter-parent agreement and test-retest reliability has been reported for this scale (e.g., Burns et al., 1991; Robinson et al., 1980; Webster-Stratton & Eyberg, 1982)

Validity. Several forms of validity have been presented, including construct and criterion-related (e.g., Boggs, Eyberg & Reynolds, 1990; ; Burns et al., 1990; Friman, Soper, Thompson & Daly, 1993, Robinson et al., 1980). Moreover, this measure has been found to be sensitive to treatment gains (e.g., Spaccarelli, Cotler & Penman, 1992; Zangwill, 1983).

Other Considerations. This measure would appear to meet the criteria of administrative efficacy and appropriateness.

Comments:

This measure does present some items which are not age appropriate for preschoolers. There is a companion instrument, the Sutter-Eyberg Student Behavior Inventory, that addresses behaviour in school

Source:

Sheila Eyberg, Department of Clinical and Health Psychology, Box J-165, Health Sciences Centre, University of Florida, Gainesville, FL 32610-0165. The items are provided by Robinson et al., (1980). To inquire about factor structure and related issues, contact G. Leonard Burns, Department of Psychology, Washington State University, Pullman, Washington, 99164-4820.

KOHN PROBLEM CHECKLIST AND SOCIAL COMPETENCE SCALE

Background:

There are two separate rating scales represented here, though scores from them are often combined (Kohn, 1988). The scales are designed for completion by teachers, child care workers or trained observers. They are appropriate for use with children between 3 and 6 years.

Scoring Format:

The scales yield two factors: cooperation-compliance versus anger-defiance; and interest-participation versus apathy withdrawal.

Evaluation:

Normative Data. Norms based on representative samples are available

Reliability. Extensive evaluations of reliability are presented in the manual and the research literature.

Validity. Extensive evaluations of validity are presented in the manual and research literature.

Other Considerations. The instruments meet the criteria of administrative efficacy and appropriateness.

Comments:

This is an instrument with quite a long history in the research literature, and its psychometric properties have been fully explored (see for example, Kohn, 1977; Kohn & Rosman, 1972a, b; Kohn & Rosman, 1973a,b). It has primarily been used as a research instrument, but it could also been recommended as a screening tool.

Source:

The Psychological Corporation, 55 Horner Ave., Toronto, Ontario M8Z 4X6. (The U.S. source is The Psychological Corporation, P.O. Box 839954, San Antonio, Texas 78283-3954).

MISSOURI CHILDREN'S BEHAVIOR CHECKLIST

Background:

The Missouri Children's Behavior Checklist was designed to identify groups of children on one of several relevant dimensions of behaviour (Sines, Pauker, Sines & Owen, 1969). Parents of children from 5 to 16 years of age respond to the statements in terms of their children's behaviour in the last 6 months.

Scoring Format:

The scale addresses 6 dimensions of behaviour: aggression; inhibition; activity level; sleep disturbance; somatization; and sociability. Sines (1986) added a further scale called depression. These scales further cluster into 3 factors: internalizing; externalizing; and sociable. Children's scores an all dimensions cluster into 7 profiles: internalizing; externalizing; mixed internalizing and externalizing, undifferentiated disturbance, low social skills; problem free, and sociable. These profiles are used more frequently than the factor scores (e.g., Thompson, Kronenberger & Curry, 1989).

Evaluation:

Normative Data. The sample which was used for the development and item revision was composed of children 5-16 years from US and Canada who attended child psychiatric, pediatric and mental health clinics (Sines et al., 1969). However, in their initial article, Sines et al., (1969) reported only on males. Sines (1986) later presented normative data on a sample of children 9-14 years. But for our purposes, another more recent study provided normative data on nonreferred children (Thompson, Kronenberger & Johndrow, 1992). The children, from pediatric clinics, were 4-14 years of age.

Reliability. Very little reliability information has been presented concerning the MCBC. Sines et al., (1969) reported internal consistency, and inter-rater agreement.

Validity. Construct validityanalyses have been reported (e.g., Curry & Thompson, 1979, 1985; Sines et al., 1969; Thompson & Curry, 1985; Thompson, Curry, Sturner, Green, & Funk, 1982).

Other Considerations. This measure seems to meet the criteria for administrative efficacy and appropriateness.

Source:

Jacob O. Sines, Department of Psychology, University of Iowa, Iowa City, Iowa 52242.

PARENT DAILY REPORTS

Background:

This is an interview schedule designed for administration to parents (Chamberlin, 1980). This interview represents an advantage over home observations because it measures low rate behaviours not always by seen by observers. Furthermore, this interview can be done by telephone. Interviewers ask parents about the presence or absence of problem behaviours. At the outset, parents can identify certain target behaviours that they feel are most problematic for their child. During each call, parents report on behaviours in the last 24 hours.

Scoring Format:

Two scores are yielded: total behaviours (sum of all occurrences in 1 day); and targeted behaviours (sum of all occurrences of events previously identified by parents as problematic). The scores are found to cluster into 4 factors : aggression, immaturity, unsocialized, and retaliation (Chamberlain & Reid, 1987).

Evaluation:

Normative Data. Chamberlain and Reid (1987) provide normative data for both sexes. The sample was composed of children 4 to 10 years who were "nondistressed".

Reliability. Internal consistency, inter-interviewer, inter-parent and test-retest reliability have been reported (see Chamberlain & Reid, 1987 for a review).

Validity. Support for the concurrent validity of this measure has been presented, in addition to evidence for the sensitivity of this measure to treatment effects on the target behaviour scores for aggressive children (see Chamberlain & Reid, 1987 for a review).

Other Considerations. This instrument seems to meet the criteria for administrative efficacy and appropriateness. However, the utilization of the telephone interview requires some training and much time, as the interview must be repeated several times for each subject.

Comments:

The interview takes about 5-7 minutes to administer. It is suggested that 6 calls over 2 weeks is good for estimation of rates (Chamberlain & Reid, 1987). Chamberlain and Reid (1987) report that the total score is inflated first day but good afterwards.

Source:

Chamberlain and Reid (1987) provide the form, but for further information write to: Patricia Chamberlain, Oregon Social Learning Centre, 207 E 5th Ave., Suite 202, Eugene, OR 97401.

PERSONALITY INVENTORY FOR CHILDREN

Background:

The Personality Inventory for Children (PIC) was originally developed for clinic use. This instrument is a "multidimensional" description of children's personality, a measure of social-emotional adjustment and cognitive development (Wirt, Lachar, Klinedinst & Seat, 1977; 1984). The PIC can be used with children as young as 3-5, but the intended range is 6 to 16. There is a focus on children's current behaviour, school performance, and social relationships, but this measure also assesses developmental, demographic and genetic and family lifestyle data. The rating scales are meant

for completion by parents, although some studies have utilized teachers as well. There are several versions of the PIC, it can be completed in 600, 420, 280 and 131 item lengths.

Scoring Format:

The 600 and 420 item version provide the full factor scales, the 280 item version provides a shortened versions of the profile scales, and the 131 item version provides only the factor scores. There are 3 scales to test informant response set (lie , F; defensiveness), a general screening scale called Adjustment Problems (ADJ) and 12 clinical scales. The 12 clinical scales are: achievement (ACH), intellectual screening (IS), developmental rate (DEV), somatic concern (SOM), depression (DEP), family relations (FAM); delinquency(DEL); withdrawal (WDL), anxiety (ANX), psychosis (PSY), hyperactivity (HYP); social skills (SOC). These clinical scales have been grouped into 4 broadband factor scores: undisciplined/poor self control (I); social incompetence (II); internalization-somatic symptoms (III); cognitive development (IV).

Evaluation:

Normative Data. Norm scores for behavior/emotional problem and nonproblem children 3-5 and 6-16 years of age by sex have been presented (e.g., Keenan & Lachar, 1988; Kline, Lachar & Godowski, 1988; Lachar, Gdowski & Snyder, 1982; Wirt et al., 1977, 1984).

Reliability. Internal consistency, and test-retest reliability has been reported (e.g., Keenan & Lachar, 1988; Kline et al., 1988; Lachar et al., 1982; Wirt et al., 1977, 1984).

Validity. The predominant forms of validity that have been presented are construct and criterion-related (e.g., Keenan & Lachar, 1988; Kline et al., 1988; Lachar & Gdowski, 1979).

Other Considerations. This measure is long and more difficult to score than many of the other measures we have addressed.

Comments:

This is a well developed instrument which may be worth the extra effort and cost involved.

Source:

Western Psychological Services, 12031 Wilshire Blvd., Los Angeles, CA 90025.

PRESCHOOL BEHAVIOR CHECKLIST

Background:

The Preschool Behavior Checklist was developed based partially on the Behavior Screening Questionnaire. This measure was meant to be a screening instrument, but also the basis of a plan for children with problems; to assess nursery school attitudes and determine the prevalence of behavioural/emotional problems in young children 2-5 years (McGuire & Richman, 1986). The PBCL is meant to be completed by preschool/nursery school teachers.

Scoring Format:

The scale yields a total problem score, however, Luk, Leung, Shone, and Mak (1991), found the scale to yield 3 factors: hyperactive/conduct problem; speech/withdrawn problem; and emotional problem.

Evaluation:

Normative Data. The PBCL was developed and standardized in Britain. The sample utilized in the development of this instrument consisted of children in nursery school and day nurseries, from 26 to 58 months (McGuire & Richman, 1986a). A second sample was of children 36 to 59 months from nursery schools, day nurseries and playgroups was also used for standardization (McGuire & Richman, 1986b).

Reliability. McGuire & Richman, (1986a,b) reported internal consistency, inter-rater reliability analyses.

Validity. Construct and criterion-related validity has been reported by McGuire and Richman, (1986a,b; Luk et al., 1991).

Other Considerations. This measure would seem to meet the criteria of administrative efficacy and appropriateness.

Source:

Dr. J. McGuire, Academic Department of Child Psychiatry, Institute of Child Health, Guilford Street, London, W.C.1. The form is available in McGuire and Richman (1986a).

PRESCHOOL BEHAVIOR QUESTIONNAIRE

Background:

This rating scale was originally developed as a downward extension of Rutter's Child Behavior Questionnaire (Behar, 1977; Behar & Stringfield, 1974) It is designed fro completion by teachers or child care workers and is appropriate for children between the ages of 3 and 6 years. A modified version of the scale is also available which includes a set of prosocial items (Tremblay, Vitaro, Gagnon & Piche, 1992; see also Tremblay, Desmarais, Gagnon & Charlebois, 1987; Vitaro, Gagnon & Tremblay, 1990).

Scoring Format:

The instrument is scored in terms of three factor scores: hostile-aggressive, anxious-fearful, and hyperactive-distractible.

Evaluation:

Normative Data. Behar & Stringfield (1974) presented norm scores based on clinical and non-clinical samples of 3 to 6 year old children. Additional normative data have been presented by Ironsmith and Poteat (1990), Ladd and Price (1987) and Tremblay et al., (1992). The latter included a sample of French Canadian Children.

Reliability. Behar (1977; Behar & Stringfield, 1974) reported good test-retest relaibilities and high inter-rater agreement. Additional reliability data has been presented in the research literature.

Validity. Considerable evidence in support of the construct and criterion-related validity of the instrument have been presented (e.g., Gouze, 1987; Hinshaw, Han, Erdhardt & Huber, 1992; Hoge, Meginbir, Khan & Weatherall, 1985; Trembaly et al., 1992)

Other Considerations. The instrument is easy to administer and score and meets the criteria of appropriateness.

Comments:

This is a well designed instrument that could be considered as part of a screening package.

Source:

Lenore Behar, Biological Sciences Research Center, Child Development Institute, University of North Carolina, Chapel Hill, North Carolina 27514.

PRESCHOOL SOCIOAFFECTIVE PROFILE

Background:

The Socioaffective Profile was developed to assess patterns of affective expression, social competence and adjustment difficulties in preschool aged children (LaFrenière, Dumas, Capuano, & Dubeau, 1992). This rating scale was developed more as an educational tool than a clinical classification measure; it examines overall adaptation including social competence. This instrument is completed by teachers.

Scoring Format:

There are 8 dimensions of adaptation to preschool assessing adjustment and adjustment problems. These items cluster into several factors: social competence; externalizing; and internalizing.

Evaluation:

Normative Data. We were unable to determine if norms were available, as this is a relatively new measure..

Reliability. Internal consistency, inter-rater and test-retest reliability analyses have been presented for the factor scores (LaFrenière et al., 1992).

Validity. Construct validity data have been provided by provided by LaFrenière, Dubeau, Janosz & Capuano (1990) and LaFrenière et al. (1992).

Other Considerations. This measure seems to meet the criteria of administrative efficacy and appropriateness.

Comments:

Although we were unable to track down much information on this measure, we are confident that with more usage, the psychometric data and norms will be further developed. This would appear to have the potential to become another well developed screening instrument.

Source:

Peter LaFrenière, Ecole de Psycho-Education, 750 Boulevard Gouin East, Montreal, Quebec, Canada H2C1A6 or Jean Dumas, Department of Psychological Sciences, Purdue University, West Lafayette, Indiana 47907.

SOCIAL SKILLS RATING SYSTEM

Background:

This measure was designed to identify behaviours that are considered to be important to parents and teachers, and to address the influence of variables (such as demographics) on social behaviour(Gresham & Elliot, 1990). Both prosocial and problem behaviours are addressed. There are two scales, one for parents, and one for teachers.

Scoring Format:

Prosocial items are rated on the basis of their importance for success, and their frequency, whereas problem behaviours are rated solely on a frequency scale. The teacher rated scale yields several factors: cooperation; social initiation; self-control; and interfering behaviours. The parent rated scale yileds on additional factor: responsibility.

Evaluation:

Normative Data. We were unable to locate norm scores, but the manual may provide this information.

Reliability. We were unable to locate reliability data, however, the manual may provide this information.

Validity. Construct validity has been assessed using Burks rating Scale (Elliot et al., 1989). Otherwise we were unable to locate validity data. Again, this information may be provided in the manual

Other Considerations. This measure seems to meet the criteria of administrative efficacy and appropriateness.

Comments:

This is a promising instrument for use as the preschool level, but more psychometric information is needed.

Source:

Stephen N. Elliot, Department of Educational Psychology, 1025 W. Johnson St., University of Wisconsin-Madison, WI 53711.

SUTTER-EYBERG STUDENT BEHAVIOR INVENTORY

Background:

The Sutter-Eyberg Student Behavior Inventory was designed as a companion instrument for the Eyberg Child Behavior Inventory. As with the ECBI, this measure was developed for longitudinal assessment, except the SESBI addresses school conduct problems in children from 2-17 years of age (Sutter & Eyberg, 1984). Eleven of the items are identical to ones on the ECBI, the others are relevant to the school situation. This is for completion by school personnel.

Scoring Format:

The rating of children on this instrument is twofold: whether or not the behaviour item is a problem, and the intensity of the problem. There has been no investigation of factor structure that we could locate.

Evaluation:

Normative Data. Norms for a sample of 3 to 5 year-olds are available (Funderburk & Eyberg, 1989).

Reliability. Adequate levels of internal consistency, test-retest, and inter-rater reliabilities have also been reported (Burns et al., 1992; Funderburk & Eyberg, 1989).

Validity. Support for construct has been presented by (e.g., Funderburk & Eyberg, 1989).

Other Considerations. The measure would appear to meet the criteria of administrative efficacy and appropriateness.

Source:

Sheila Eyberg, Department of Clinical and Health Psychology. University of Florida, Gainsville, FL 32610.

TEMPERAMENT ASSESSMENT BATTERY FOR CHILDREN

Background:

This instrument was designed as an adaptation of the Thomas and Chess Teacher Temperament Questionnaire (Martin, 1988). This rating instrument is completed by parents.

Scoring Format:

The scale yields scores for: activity level; adaptability; approach/withdrawal; tendencies toward novel situations; emotional intensity; distractibility and persistence

Evaluation:

Normative Data. Norms are provided in the manual.

Reliability. Reliability data are presented in the manual; we were unable to locate and outside reliability.

Validity. Validity data are presented in the manual; we were unable to locate outside validity data.

Other Considerations. It would appear that this measure meets the criteria of administrative efficacy and appropriateness.

Comment:

This is a promising instrument, but more psychometric information is needed.

Source:

Clinical Psychology Publishing. Brandon VT.

TEST OF EARLY SOCIOEMOTIONAL DEVELOPMENT

Background:

This instrument was designed to assess emotional development in children of preschool and early elementary school age (Hresko, W.P., & Brown, L., 1984). The goal is to assess and identify children who may have emotional behavioural or learning problems. There are four rater components: teacher, parent, self and sociometric scale. The use of multiple respondents was based on the understanding that more than one respondent is needed to provide a more complete picture of the child's functioning. This measure is a downward extension of the Behaviour Rating Profile (Brown & Hammill, 1983) which was used with older children.

Scoring Format:

We have no information on the factor structure and subscores of these measures, but the manual may yield this information.

Evaluation:

Normative Data. These measures were normed on children 3- to 7-11 for each scale. The manual contains all instructions and norms needed for this measure.

Reliability. Reliability estimates are available in the manual.

Validity. Validity analyses are reported in the manual.

Other Considerations. This measure is rather more involved than the other instruments we have addressed, so more cost (time and money) is associated with the use of this measure.

Comments:

This measure seems to be sound, but the lack of use of these measures by other researchers leads to a lack of supporting psychometric data.

Source:

PRO-ED, 5341 Industrial Oaks Blvd., Austin TX, 78735.

TODDLER TEMPERAMENT SCALE

Background:

This instrument was designed to assess dimensions of temperament in children from 1-3 years and is comparable to the Behavior Style Questionnaire for older children ad is a revision of the Infant Temperament Questionnaire (Fullard, McDevitt & Carey, 1979, 1984). This rating scale was written to reflect the theoretical position of Thomas and Chess New York Longitudinal Study (e.g., Thomas et al., 1968), and is completed by parents.

Scoring Format:

The questionnaire was written to reflect 9 dimensions of temperament: activity; rythmicity; persistence; approachability; adaptability; distractibility; intensity; mood; threshold. Children are assigned to a profile based on their scores on several scales, the profiles are: easy, slow-to-warm up, intermediate low, intermediate high, and difficult.

Evaluation:

Normative Data. Norms scores on a sample of children 1 to 3 years of age, from a pediatric practice are available.

Reliability. Several forms of reliability are available including stability, test-retest and internal consistency (McDevitt & Carey, 1981; Fullard, et al., 1979, 1984; Gibbs et al., 1987).

Validity. We were unable to locate validity data, however, this may be contained in the manual.

Other Considerations. This measure would appear to meet the criteria of administrative efficacy and appropriateness.

Comments:

The TTS takes about 20 minutes to rate and about 15 minutes to score. This instrument is widely used in research, however, there are some questions as to the existence of several of the 9 dimensions--the questionnaire was written to reflect the dimensions, however factor analysis does not always reproduce these dimensions (see for example, Gibbs et al., 1987). Moreover, Gibbs et al., (1987) have reported that there is little evidence to support the 9 dimensions of the NYLS and the TTS, and further question the internal validity.

Source:

W. Fullard, Dept. of Educational Psychology, Temple University 004-00, Philadelphia Pa., 19122.

WALKER PROBLEM BEHAVIOR IDENTIFICATION CHECKLIST

Background:

The Walker Problem Behavior Identification Checklist was developed to assess problem behaviours in children 2-5 years and K to 6th grade (Walker, 1983). There are separate forms for males and females.

Scoring Format:

The scale yields 5 subscales: acting out; withdrawn; distractibility; disturbed peer relations; immaturity.

Evaluation:

Normative Data. Norm scores are available based on a sample of children 2-6 years of age

Reliability. The manual reports estimates of reliability including internal consistency, and test-retest.

Validity. Information regarding validity has been presented by (Bègin, 1983).

Other Considerations. The scale seems to meet the criteria of administrative efficacy and appropriateness.

Comments:

This measure is adapted for preschool-aged children, and adequate reliability and validity data are presented.

Source:

Western Psychological Services. 12031 Wilshire Blvd., Los Angeles, CA 90025.

CONCLUDING COMMENTS

We will address two additional issues in the report, the first involving an acknowledgment of some theoretical and technical issues and the second some cautions regarding the use of the measures.

THEORETICAL AND TECHNICAL ISSUES

This report was prepared as a resource for practitioners and researchers requiring information about existing measures of social/emotional competence and little effort has been made to address theoretical or technical issues in this area of assessment. Nevertheless, we feel we should at least acknowledge the existence of some of these issues.

Most of the instruments described in the review were empirically derived, and, with only a few exceptions, explicit theoretical rationales have not been presented in connection with them. It is important to recognize, though, that there are theoretical issues implicit within the traits, behavioural syndromes or competencies represented in these measures.

One area of theoretical controversy concerns the factors which shape the traits, behaviours or competencies of the child. The postulated causal factors range from genetic predisposition's through parenting effects to the effects of the larger environment. Discussions of this controversy have been presented by Bronfenbrenner (1979), Plomin (1990) and Rutter, MacDonald, Le Couteur, Harrington, Botlon & Bailey (1990).

A second theoretical issue concerns the meaningfulness of the constructs derived from these measures. Underlying constructs such as attention-deficit disorder, social withdrawal, autism, oppositional-defiant disorder are assumptions about personality, motivation, attitudes, etc. There are, in other words, theories of personality associated with these constructs. These are, however, rarely made explicit, and this has probably been something of an impediment to the further development of these measures. Discussions of this general issue have been provided by Ozer and Reise (1994) and Wiggins and Pincus (1992).

A third theoretical issue focuses on the longer term consequences of early social and emotional disorders. This relates to the issue of criterion-related validit raised above, and it has been the subject of considerable empirical attention. However, there has also been some theoretical attention to the issue through discussions of the means by whic early behaviours are linked with later adjustment (see for example, Loeber, 1982; Parker & Asher, 1987).

There are, as well, a number of technical issues associated with these interview and judgmental measures. Some of these issues concern the effects of alternative respones and scoring formats and others focus on issues relating to reliability and validity. Discussions of technical issues relating to interview measures have been presented by Hodges (1993) and Sattler (1988), while Edelbrock (1983), Elliot, Busse & Gresham (1993), Hoge, Andrews (1992) and Macmann, Barnett and Lopez (1993) have provided useful discussions with reference to rating scales and checklists.

SOME CAUTIONS

A basic premise of this review is that standardized interview and judgmental instruments have an important role to play in the assessment of preschool-aged children. They are capable of providing useful information about the social and emotional adjustment of the child, and this information may be of value for clinical and research purpose. Certainly the use of these instruments is far preferable to a

dependence on informal or unstandardized assessments. There are, however, two cautions to be emphasized in connection with the use of these measures for clinical purposes.

The first caution concerns questions of reliability and validity. While the more highly developed instruments do appear to yield stable scores and to demonstrate construct and criterion-related validity, there is still room for error in individual cases. There are two practical consequences of this. First, under most circumstances, the instruments should not constitute the sole basis for screening or diagnostic decisions. Wherever possible, hypotheses generated by the instrument should be checked against other sources of information. Second, those using the instruments should be knowledgeable about the assessment process and the limitations associated with it.

The second caution concerns the need for an ecological or systemic focus. The instruments reviewed in the report provide information about the social or emotional functioning of the child. However, decisions about treatment or placement should be based on a comprehensive assessment of the child's situation. This assessment would focus not only on the child's current functioning, but also on the nature of all environments influencing the child, including, where appropriate, home, extended family, school/day care and community.

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APPENDIX 1

List of Instruments:

Name of Instrument	Type
Baumrind Preschool Behavior Q-Sort	Q-sort
Behavior Problem Checklist	Behavioural checklist
Behavior Problem Checklist- Revised	Behavioural checklist
Behavior Screening Questionnaire	Interview
Behavior Style Questionnaire	Ratings
Burks Behavior Rating Scale: Preschool - 1 Kindergarten	Ratings
California Child Q-Sort	Q-sort
California Preschool Social Competence Scale	Ratings
Child Activity Rating Scale	Ratings
Child Behavior Checklist/4-16	Ratings/Behavioural checklist
Child Behavior Checklist/2-3	Ratings/Behavioural checklist
Children's Behavior Form	Ratings
Colorado Childhood Temperament Inventory	Ratings
Connors Parent-Teacher Rating Scales- Revised	Behavioural checklist
Critical Events Checklist	Behavioural checklist
Early School Behavior Scale	Ratings
EASI	Ratings
Eyberg Child Behavior Inventory	Ratings
Kohn Problem Checklist and Social Competence Scale	Ratings Behavioural checklist
Missouri Children's Behavior Checklist	Behavioural checklist
Parent Daily Reports	Interview
Personality Inventory for Children	Ratings
Preschool Behavior Checklist	Behavioural checklist
Preschool Behavior Questionnaire	Behavioural checklist
Preschool Socioaffective Profile	Ratings
Social Skills Rating System	Ratings
Sutter-Eyberg Student Behavior Inventory	Ratings
Temperament Assessment Battery for Children	Ratings
Test of Early Socioemotional development	Ratings
Toddler Temperament Scale	Ratings
Walker Problem Behavior Identification Checklist	Behavioural checklist