The development of the Personality Inventory for Children (PIC) began with the core concept that maternal reports would provide data for child guidance evaluation and the consequent belief that maternal responses to a 600-item administration booklet could yield scales useful in determining child and family status. Two areas of weakness were found: (1) the lack of depth of clinical correlates left the test user to extrapolate from assumed characteristics of criterion group members and/or scale item content; and (2) the documentation of cutting scores did little to suggest at what elevations a scale has clinical meaning. Therefore, criterion data was collected from parents in the form of a clinic application blank. The resulting actuarial study, completed in 1979, analyzed 431 PIC protocols from children and adolescents during 1976 and 1977, comparing each of the 161 profile scales with 322 potential correlates. These analyses identified a reasonably robust number of cross-validated correlates and also delineated scale T-score ranges where these correlates were the most likely descriptive. Concerns which were also explored include: (1) the use of maternal reports to predict cognitive characteristics of their children, (2) the possibility that PIC scales represent maternal observations that can be distorted, and (3) the length of the administration booklet.
The development of the Personality Inventory for Children (PIC) rests upon a core concept and an associated 600-item administration booklet, both developed in the mid-1950's by professor Robert D. Wirt, then of the University of Minnesota. The concept combined the observation that a mother's report provides a substantial data base for the child guidance evaluation, with the notion that mothers' responses to inventory items describing child and family characteristics and behavior could be handled with psychometric sophistication to yield scales useful in the assessment of child and family status. The study of the viability of this maternal-report concept was made possible by the writing by Wirt and Broen of 600 potential scale items. (That is, from the onset the 1958 administration-booklet was seen an item pool of potential, but as yet unproven, value.)

To insure comprehensive coverage, at least 50 items were written for eleven content areas: Withdrawal, Excitement, Reality Distortion, Aggression, Somatic Concern, Anxiety, Social Skills, Family Relations, Physical Development, Intellectual Development, and Asocial Behavior. The only modification to this 1958 item pool occurred in 1973 with removal of 13 items judged to be possibly offensive to respondents and the substitution of items nominated to form a Lie scale.
Early efforts in inventory development included collection of a 6-16 year normative sample (n=2390) (later including 3-5 year olds) and development of an empirically-keyed scale demonstrating that a subset of PIC items could separate normative 7-12 year old boys from same-age boys seen for a psychiatric evaluation.

The 1977 Manual summarizes eight years of scale construction efforts. Scales have been constructed using several methodologies, including empirically-keying, content-selection, and factor analysis. Initially, the 33 scales then available were divided into a 16-scale profile and 17 "supplemental" (preferred: experimental) scales. The profile scales, constructed by both empirical and content-oriented strategies, were selected because of the importance of the dimensions measured and their relatively superior psychometric performance (susceptability to response sets, classification rates, cross-validation). The 1977 profile includes three measures of response set, one screening scale, and 12 clinical scales: Achievement, Intellectual Screening, Development, Somatic Concern, Depression, Family Relations, Delinquency, Withdrawal, Anxiety, Psychosis, Hyperactivity, and Social Skills.

The Manual presents detailed psychometric characteristics of these scales, mean profiles of various criterion samples, case illustrations, and a set of critical items. Both the Manual, and later the Actuarial Guide present substantial evidence that the profile scales are independent of child race, and that the age and sex effects demonstrated reflect differences well-established in the literature. Although this 96-page manual can only be described as one of the most comprehensive of its kind for a newly-published instrument, the process of Manual compilation and initial applications of the PIC profile to children presented during
teaching conferences at Lafayette Clinic suggested two areas of weakness: First, the lack of depth of clinical correlates left the test user to extrapolate from assumed characteristics of criterion group members and/or scale item content. Second, the documentation of cutting scores (when available) did little to suggest at what elevations a scale had clinical meaning. In fact, data presented in the manual suggested that initial cutting scores might vary from 60 to 80 T.

I have begun to make a habit of fabricating the example of little "Melissa" to illustrate this issue in my workshop presentations. This fictitious, golden-curved, smiling, impish 7-year old girl obtains, through her mother's report, a Delinquency scale score of 82T. Now we learn, through examination of the Manual, that this empirically-keyed scale obtained a criterion validity of .89 in cross-validation samples with 95% correct classification of normative and adjudicated delinquent adolescents using a classification rule of raw score more than 19 (equal to 70T for boys and 76T for girls) and demonstrated a test-retest reliability of .81 in a small clinical sample. This is all good and fine, but what does it do to help us with little Melissa? Even in Detroit, little Melissas do not steal hubcaps, smoke dope, and break sufficient laws to bring them to the attention of the juvenile justice system.

I am making an extreme example here to prove a point. Evidence of group validity and reliability is not enough. Following the example of several adult inventories, many small studies would be needed to provide the necessary incremental knowledge, and "clinical lore" would fill in the gaps. Being impatient with such a prospect, I began collecting criterion data from parents in the form of a clinic application blank,
containing presenting symptoms and developmental history, evaluative
data from teachers via a school form, and correlates from clinicians
following their evaluations. The resulting actuarial study, completed
by myself and Charles Gdowski in 1979, analyzed 431 PIC protocols from
children and adolescents seen at Lafayette Clinic during 1976 and 1977,
comparing each of the 16 profile scales with 322 potential correlates.
These analyses identified a reasonably robust number of cross-validated
correlates (56 for DLQ) and also delineated scale T-score ranges where
these correlates were the most likely descriptive. The 1979 Interpretive
Guide identifies these scale ranges for DLQ as 80-89T, 90-99T, >99T,
and >109T. Referring to this monograph's composite interpretations
that consolidate parent, teacher, and clinician correlates, we find little
Melissa (at 82T) likely to be described by the following paragraph:

"Resistance to the requests of adults at home and in
school is often indicated. Similar children are
frequently described as impulsive by mental health
professionals who may note irresponsible behavior,
poor judgement, or an established tendency to blame
others for current problems. A hostile, unsocia-
lized orientation may be suggested by argumentative-
ness, lying, or stealing." (Lachar & Gdowski, 1979,
pg. 94)

We may all give a sigh of relief for little Melissa. It should be noted
that elevations of 90T+ signify increasingly more pathological correlates,
with 110T+ indicative of involvement with law enforcement agencies.

Following completion of this actuarial interpretive system for the
profile scales and establishment of a computerized scoring and inter-
pretive service for the PIC, three application issues remained that were
especially of concern to clinicians. One was the use of maternal report
to predict cognitive characteristics of their children, because clinicians are used to obtaining behavior samples directly from children. We are currently looking at a sample of 400 children and adolescents for whom profile scales, WISC-R and PIAT results are being compared, with special interest being given to the cognitive triad of scales Achievement, Intellectual Screening, and Development.

A second concern has related to the notion that PIC scales represent maternal observations that can be distorted. Although one-quarter or fewer parents of children seen in child guidance settings obtain MMPI profiles similar to those of psychiatric patients, there is a general consensus among many child clinicians that these parents are significantly disturbed. This disturbance would be likely manifest in ascribing deviance to their children that does not exist. There are three lines of evidence to refute this concern (although evidence does not always serve to correct preconceived notions). First, if substantial distortion enters into scale elevation, it would be impossible to obtain the magnitude of validity and reliability estimates presented in the Manual as well as the 527 cross-validated correlates delineated in the actuarial study. Second, a study comparing maternal MMPI scale elevations with PIC scale elevations obtained during a psychiatric evaluation of their children produced no consistent or pervasive relationships across the scales of the PIC profile (except for FAM). The third line of evidence hopefully will come from the experimental studies of parental exaggeration as well as defensiveness. These studies are currently in progress.

The third concern of clinicians has been the length of the administration booklet. This year I have dealt with this issue by providing a
revision of the administration booklet in which the 600 items are divided into four sequential and contiguous parts within the administration booklet. Completion of each additional part allows additional scoring options. The first 131 items include the Lie scale and four new broad-band scales (I: Undisciplined/Poor Self-Control, II: Social Incompetence, III: Internalization/Somatic Symptoms, IV: Cognitive Development). These dimensions were obtained from the factor analysis of the 313 inventory items included in the 12 scales Achievement - Social Skills, and are described in some detail in this October's issue of JCCP as well as in a Manual Supplement soon to be made available by Western Psychological Services. Completion of an additional 149 items (280 total) allows the scoring of profile scales that have been shortened an average of 18%. (The manual supplement documents the validity and reliability of the shortened profile and the factor scales). As these shortened scales are renormed on the original standardization samples, a new profile form (that includes the factor scales) is necessary for their application. In addition, this revised format allows completion of the standard profile scales and critical items within the first 420 booklet items - still a savings of 180 items. The items necessary to complete the experimental scales and unscored items form this last portion of the booklet.

Last, let me mention briefly the current Lafayette Clinic and Wayne State University projects using the PIC that will serve to supplement the bibliography I can provide today. Charles Gdowski, Rex Kline, and I are completing the cluster analysis of two samples of over 800 protocols each in an attempt to develop a profile classification scheme.
Other projects include the study of juvenile delinquents, the correlates of father-informant generated profiles, profile classification strategies for special education placement, and correlational studies with other measures of child behavior and ability.

References

Lachar, D. An introduction to the Personality Inventory for Children revised administration booklet: Factor-derived and shortened profile scales. Los Angeles: Western Psychological Services, in press.


