

PART I

General Issues

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CHAPTER 1

Historical Perspectives

Thomas R. Kratochwill, Richard J. Morris, and Joseph Robinson

In this chapter, we trace the historical development of the assessment and treatment of children's and adolescents' mental health issues. Although our overview is brief (see several sources for more detailed historical accounts: Doyle, 1974; Dubois, 1970; Linden & Linden, 1968; P. McReynolds, 1975), we provide some perspectives on contemporary evidence-based assessment and treatment. An examination of the historical factors in assessment and treatment is important for several reasons. First, it is important to understand that many of the contemporary issues in evidence-based practice have their origin in past practices. Second, it is important to realize that many contemporary issues are related to social or even political concerns that have their origin in the past. Third, the past has sometimes provided or even imposed a structure on assessment and treatment practices. It is important to understand this structure to understand contemporary models and the scope of psychological practices. Finally, it is important to focus on historical factors to introduce a variety of scholarly perspectives into the discussion of the issues surrounding evidence-based practice. We first review historical features of diagnosis and assessment and then turn our attention to child and adolescent therapy. However, the conceptual, theoretical, and practice issues in these domains overlap.

ASSESSMENT AND DIAGNOSIS: ANCIENT INFLUENCES

Most historical treatments of the assessment literature typically begin with a discussion of the work of Galton in England and Cattell in the United States (i.e., many books on assessment begin with this period; e.g., Sunberg, 1977). However, assessment has a much richer history, attesting to the assumption that many features of contemporary assessment actually date back to the beginnings of recorded history. L. V. McReynolds (1974) traced the historical antecedents of the current practices in assessment beginning with antiquity and extending to the second half of the twentieth century. Four phases were reviewed: antiquity, the medieval period and the Renaissance, the Age of Reason, and the period from Thomesius to Galton. We adopt this framework in this section of the chapter.

Antiquity

An examination of early assessment practices shows that there was a close interplay between the methods used and the cultural views held during that particular time.

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This perspective is not unlike the contemporary views in the United States that led to the development of special education services for children (Kratochwill, Clements, & Kalymon, 2007), with its emphasis on fair assessment practices for handicapped children. It is possible that the first personality assessment procedure was based on *astrology*, and that the first psychological “test” was the horoscope. Although astrology can be regarded as invalid on scientific grounds, it did contribute to (a) the view that individual personalities represent the focus of assessment, (b) the belief that the psychological makeup of the individual is predetermined, and (c) the development of taxonomical (diagnostic) categories.

Another early assessment strategy involved physiognomy, the interpretation of an individual’s character from body physique. Physiognomics, also a very limited assessment procedure, assumed a relatively fixed conception of personality but shared some methodological features with naturalistic observation, not unlike the naturalistic observations conducted using behavior modification procedures (Kazdin, 1978). L. V. McReynolds (1974) noted that the longest continued assessment technique with some claim to rationality and one that remains with us today is physiognomy. Thus, work by Mahl (1956) and Gleser, Gottshalk, and Springer (1961) on speech patterns; by Hall (1959), Eibl-Eibesfeldt (1971), and Haas (1972) on methodology of movements; of Izard (1971) and Ekman and associates (Ekman, 1973; Ekman, Friesen, & Ellsworth, 1972) on emotions and facial expressions; and of Hess and associates (Hess & Polt, 1960; Hess, Seltzer, & Schlien, 1965) on the relation of pupil size to affect can be related to earlier physiognomic conceptions (cf. L. V. McReynolds, 1974).

Developments in assessment during early times were not always limited to the area of personality assessment. For example, Civil Service examinations were used in ancient China for selection purposes. Dubois (1966, pp. 30–31) notes:

The earliest development seems to have been a rudimentary form of proficiency testing. About the year 2200 B.C. the emperor of China is said to have examined his officials every third year. . . . A thousand years later in 1115 B.C., at the beginning of the Chan dynasty, formal examining procedures were established. Here the record is clear. Job sample tests were used requiring proficiency in the five basic arts: music, archery, horsemanship, writing, and arithmetic. . . . Knowledge of a sixth act was also required—skill in the rites and ceremonies of public and social life.

Medieval Period and the Renaissance

L. V. McReynolds (1974) notes that during this period, the acceptance of humeral psychology and physiognomic strategies of evaluating people were widespread. Generally, this period supported the recognition of the individual, and so we again see an example of cultural influences on assessment practices. In some respects this period set the occasion for what would later be a debate on research methodology, especially surrounding the use of group versus single-case research design in therapy research (Kratochwill & Levin, 1992).

Age of Reason

The Age of Reason covers the period from approximately the middle of the sixteenth century to the second half of the eighteenth. A major theme of this period was the focus on individual differences, as reflected in some important works on assessment: Huarte's *Tryal of Wits*, Wright's *Passions of the Minde*, and Thomesius's *New Discovery*. During this period, the recognition of individual differences prompted measurement so that an individual's sense of well-being could be more fully realized.

From Thomesius to Galton

A significant contribution to assessment during this period, particularly in the nineteenth century, was phrenology. Phrenology bears a similarity to physiognomy, but whereas physiognomy emphasized assessment of external body features such as facial and other characteristics, phrenology emphasized the assessment of the external formations of the skull. Phrenology assumed that mental functions were based on specific processes localized in certain areas of the brain and that the intensity or magnitude of these functions was indicated in the contours and external topography of the skull (L. V. McReynolds, 1974).

Four positive contributions of phrenology that have a resemblance to contemporary assessment practices or activities were identified (L. V. McReynolds, 1974). First, there was an emphasis on individual differences. Second, the assessment paradigm emphasized the notions of assessor and subject, the systematic collections of data during a single session, and written reports that usually included qualitative profiles. Third, the phrenological movement helped advance objectivity through blind assessment and rating scales. Fourth, phrenology contributed to the development of a primitive taxonomical system, which included affective faculties (e.g., propensities, sentiments) and intellectual faculties (e.g., perceptive, reflective). This line of reasoning was likely influential in later conceptualizations of diagnostic and classification systems.

Implications

This brief historical overview of ancient influences points out that many contemporary assessment practices have their roots deep in our past. Noteworthy is the fact that the work of the phrenologists (and later, Quetelet's work on psychological statistics) set the stage for the emergence of Galton's contributions and the subsequent more modern era in assessment. It is interesting to speculate how some of the ancient procedures might have set the stage for child diagnoses specifically. L. V. McReynolds (1974, pp. 524–525) raises an interesting point:

We know that such techniques as chiromancy, metaprosopy, and phrenology are in principle all totally invalid, yet I suggest that in the hands of insightful and discerning practitioners they may, at least on occasion, have been more valid than we suppose, even if for different reasons than their users, much less their clients imagined.

ASSESSMENT AND DIAGNOSIS: NINETEENTH-CENTURY INFLUENCES

During the nineteenth century significant developments were taking place in Western Europe and the United States that would shape the future of psychological and educational assessment (cf. Carroll, 1978; Dubois, 1970; Laosa, 1977). Specifically, events were occurring in France, Germany, England, and the United States that were to have a profound influence on assessment practices in child therapy and education.

France

Attention to two movements occurred in France that made a significant impact on the history of testing and assessment in general and child assessment in particular (Maloney & Ward, 1976). One movement, pioneered by Berhheim, Liebault, Charcot, and Freud, was focused on a new view of deviant behavior. The influence of this movement was to take abnormal behavior out of the legal or moral realm with which it had been previously associated and cast it as a psychological or psychosocial problem. This focus prompted psychological assessment rather than moral or legal sanction, as had been common prior to this period.

Also noteworthy was the movement called “the science of education.” Jacques Itard, a French physician, taught Victor, the “Wild Boy of Aveyron,” various skills. Many of the procedures used in Itard’s work were similar to later behavior modification procedures that emphasized environmental stimulus and response changes during intervention. Itard’s contributions also provided a background for Binet’s work on measurement of intelligence.

Esquivol’s (1722–1840) work, represented in his book *Des Maladies Mentales*, was influential in that he distinguished between “emotional disorders” and “subaverage intellect.” According to his views, subaverage intelligence consists of levels of individual performance: (a) those making cries only, (b) those using monosyllables, and (c) those using short phrases but not elaborate speech. Thus, here we see the basis for an early classification scheme that could organize human behavior.

Germany

Although some of the work in France emphasized individual differences in pathology and cognitive ability, German scientists perceived individual differences as a source of measurement error. A significant contribution to the individual differences theme is found in the “Maskelyne-Kinnebrook affair.” The difference between Maskelyne (the astronomer) and Kinnebrook (the assistant) in their measurement of the timing of stellar transits was later analyzed by Bessel. Bessel concluded that different persons had different transit tracking times, and that when all astronomers were checked against one standard, individual error could be calculated; thus, a sort of “personal equation” was developed (cf. Boring, 1950).

Another significant influence on assessment came from Wundt, who set up a psychological laboratory in Leipzig to study such processes as reaction time, sensation, psychophysics, and association. This work, as well as the general work

occurring on measurement, was helpful to popularize the notion of measurement of differences between individuals. Some Americans who studied with Wundt were G. Stanley Hall and James McKeen Cattell. Both of these individuals were to have a large impact on future child psychological assessment.

England

The work of Charles Darwin was most influential in psychological and educational assessment, particularly through his theory of evolution presented in 1859 in *Origin of the Species*. Darwin's work emphasized that there were measurable and meaningful differences among members of each species. Galton, Darwin's half-cousin, was influential in applying evolutionary theory to humans. In his 1869 book, *Hereditary Genius*, Galton argued that genius has a tendency to run in families. He was greatly influenced by the Belgian statistician Quetelet (1770–1864), who was the first to apply the normal probability curve of Laplace and Gauss to human data. This work translated into the notion that nature's mistakes were represented as deviations from the average.

Several implications of this work for child assessment and treatment are noteworthy. First, Galton's system of classification represented a fundamental step toward the concept of standardized scores (Wiseman, 1967). Second, in the application of Quetelet's statistics, Galton demonstrated that many human variables, both physical and psychological, were distributed normally. This concept is a direct precursor to the notion of a norm and application of standardization (Laosa, 1977). Third, a major influence of this work was to establish that certain variables should be subjected to quantitative measurement. Galton's work was significant in that it encouraged other efforts in the area of measurement of individual differences in mental abilities that were considerably more sophisticated than previous efforts (Cooley & Lohnes, 1976). Finally, through the application of the normal curve, individual performance or standing could be classified as deviant or even as a mistake of nature. We know that although Galton was influenced by the phrenologists, he rejected this form of assessment. He noted in 1906, "Why capable observers should have come to such strange conclusions [can] be accounted for . . . most easily on the supposition of unconscious bias in collecting data" (quoted in Pearson, 1930, p. 577).

United States

Early work in the United States contributed to what was called the "mental testing" movement, a major part of clinical and school psychology. Cattell (1860–1944) was the first to use the term "mental test," and he is generally referred to as the father of mental testing (DuBois, 1970; Hunt, 1961). Cattell also introduced experimental psychology into the United States. A significant contribution to assessment was that he advocated testing in schools; he was also generally responsible for instigating mental testing in the United States (Boring, 1950).

In 1895, Cattell chaired the first American Psychological Association (APA) Committee on Mental and Physical Tests. Although Cattell made major changes in the nature of testing, his work was not accepted unconditionally. For example, Sharp (1899) published an article questioning the reliability of mental tests. Wissler

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(1901) compared the reliability of some of Cattell's psychological measures with various measurement approaches from the physical sciences and concluded that tests used in Cattell's lab showed little correlation among themselves, did not relate to academic grades, and were unreliable (Maloney & Ward, 1976). Even Wundt was not supportive of Cattell's focus on mental measurements (Boring, 1950). Nevertheless, Cattell's work, as well as work in France, promoted the development of a movement called "differential psychology."

INTELLIGENCE TESTING MOVEMENT

Around the beginning of the twentieth century, assessment was given a new impetus through the development of differential psychology (Binet & Henri, 1895; Stern, 1900; Stern & Whipple, 1914). Stern and Whipple (1914) suggested that mental age be divided by chronological age to produce a "mental quotient," a procedure, with refinements, that evolved into the IQ concept (Laosa, 1977).

The work of Binet and his associates was quite influential, although not necessarily in the direction that Binet had envisioned or desired (Sarason, 1976; Wolf, 1973). Binet initially focused his efforts on the diagnosis of "mentally retarded" children around the late 1880s. At this time he was assisted by Theodore Simon, with whom he later worked in the development of the first formal measure of intellectual assessment for children (Wolf, 1973). Based on a study conducted for the Ministry of Public Instruction, he focused efforts on predicting which children would be unable to succeed in school (Resnick, 1982). Binet noted that performance on his scale had implications for diagnostic classification and education. Resnick (1982, p. 176) notes:

A scale of thirty questions was developed, each of increasing difficulty. Idiots were those who could not go beyond the sixth item, and imbeciles were stymied after the twelfth. Morons were found able to deal with the first twenty-three questions. They were able to do the memory tests and arrange lines and weights in a series, but no more . . . the test . . . was designed as an examination to remove from the mainstream of schooling, and place in newly developed special classes for the retarded, those who would be unable to follow the normal prescribed curriculum. As such, it was a test for selection, removing from normal instruction those with the lowest level of ability. Binet argued, however, that the treatment the children would receive in the special classes would be more suited to their learning needs. The testing, therefore, was to promote more effective and appropriate instruction.

Interest in testing the abilities of children was at a high level during this time. This interest was prompted, in part, by the growing population of children in schools due to natural population growth and immigration and the fact that students began to stay in school longer (Chapman, Terman, & Movement, 1979). With the growing number of children in schools, it became clear that not all children could profit from regular instruction. The policies and procedures for diagnosis and assessment of children during this time set a direction that has only recently been changed with new federal regulations that has, as one focus, to reduce the emphasis on an IQ-achievement discrepancy to make a determination of disability status for children with learning problems. The new focus in assessment is called "response

to intervention” and involves determining the child’s response to instruction as part of the diagnostic process (Kratochwill et al., 2007).

Several American psychologists promoted Binet’s work. For example, Goddard published the first revision of the Binet scale, and Terman developed the Stanford-Binet. Thereafter, the Binet scale was used to identify children who were regarded as “backwards” or “feebleminded.” In 1911 the Binet scale was being used in 71 of 84 cities that administered tests to identify feebleminded children. However, the Binet scale was also being used experimentally to screen out and turn back “retarded” immigrants (Knox, 1914, as cited in Widgor & Garner, 1982).

The Stanford version of the Binet-Simon scale was originally published in 1916 by Terman; it was revised by Terman and Merrill in 1937 and 1960 and renamed in 1972 and subsequently. This translation and revision of Binet’s earlier work firmly established intelligence testing in schools and clinics throughout the United States (DuBois, 1970).

Development of Group Testing

The assessment movement was given a major thrust through the development of group tests during World War I. Many assessment efforts during this time reflected a pattern of procedures similar to that used by Binet (T. E. Newland, 1977). Ebbinghaus demonstrated the feasibility of group tests, and some American psychologists (e.g., Otis, 1918; Whipple, 1910) recognized that the Binet-Simon scale could be adapted for group testing. However, there were important differences. Whereas the Binet-type items typically required a definite answer provided by the child, group tests usually called for recognition of a correct answer among several alternatives (Carroll, 1978).

A committee of the APA chaired by Robert M. Yerkes developed the Army Alpha and Army Beta group tests. The Army Beta (a nonverbal group test) was designed so as not to discriminate against illiterates and individuals speaking foreign languages. Although the impact of this development was to create a new interest in and role for testing, a review of the tests used revealed that the source of many tests was increasingly used for nonmilitary purposes (T. E. Newland, 1977).

Following the war, many clinical psychologists who were involved in wartime testing sought employment in the civilian ranks, and many became involved in the schools. Resnick (1982, p. 183) notes:

Aiding this movement was Philander P. Clarxton, U.S. Commissioner of education, who communicated to school superintendents throughout the country about the reserve of trained people that could be tapped for the needs of the schools. He wrote enthusiastically about the “unusual opportunity for city schools to obtain the services of competent men.” Among the services that they could render was “discovering defective children and children of superior intelligence.”

This movement, in part, facilitated the use of group intelligence tests in the public schools for purposes of diagnosis and classification. Many of these tests were administered to identify children who could not profit from regular instruction. Although some schools had made provisions for special children, the intelligence tests

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formalized the decision-making process for these special services. Also, between 1919 and 1923, Terman introduced the National Intelligence Test for grades three to eight and the Terman Group Test, for grades seven to 12 and found that the schools were most receptive (Resnick, 1982). Resnick reported that the most important use of the tests was for placement of children into homogeneous groups:

Sixty-four percent of the reporting cities used group intelligence tests for this purpose in elementary schools, 56% in junior high schools, and 41% in high schools. Enthusiasm for the use of testing systemwide for this purpose was at a high level. In 1923, Terman's group test for grades seven to thirteen sold more than a half-million copies. (pp. 184–185)

The stage for the rapid development of ability tests was also set by such psychologists as Spearman, Thorndike, and Thurstone and their respective theories of intelligence. For example, Spearman developed an elaborate theory of the organization of human abilities in which he concluded that all intellectual abilities have a common factor, *g*, and a number of specific factors, *s*, which relate uniquely to each presumed ability. Spearman's two-factor theory was the basis on which tests examining specific abilities (Edwards, 1971) rather than global scores were developed (Laosa, 1977).

Thorndike viewed intelligence as comprising a multitude of separate elements, each of which represented a specific ability. Intelligence was also perceived as having both hereditary and environmental components. Thurstone concluded that there were seven primary mental abilities (in contrast to Spearman's *s* and *g* factors) and developed the Primary Mental Abilities Test to measure each specific ability.

Intelligence tests gradually evolved into major diagnostic instruments throughout the world. Such instruments became an important diagnostic tool for identifying children with cognitive disabilities. However, not all countries accepted the use of these tests. For example, in the Soviet Union such tests were banned in 1936 by the Communist Party because they were considered methods that discriminated against the peasants and the working class in favor of the culturally advantaged (Sunberg, 1977; Wortis, 1960). As an alternative, diagnosis in the USSR was based primarily on neurophysiological evidence. The neurologist and psychophysicologist, rather than the clinical psychologist, were primarily engaged in diagnosing children with mental retardation (Dunn & Kirk, 1963).

Work in these areas, as well as other contributions prior to and during this period, led to diverse views on the nature of intelligence and its assessment. A major contribution to the testing movement was the development of the Wechsler intelligence scales. Psychologist David Wechsler developed the Wechsler Adult Intelligence Scale (WAIS) by including a group of subtests from WWI vintage that he found valuable in his work with adults. His criterion of "general adaptability" (Wechsler, 1975) was extended downward in the development of the Wechsler Intelligence Scale for Children (WISC) and the Wechsler Preschool and Primary Scale of Intelligence (WPPSI). The work of Wechsler contrasted with that of Binet. Whereas Wechsler's scales emerged from work with adults and were later developed for use with children, Binet's emerged from work with young children and later were developed for use with older children (T. E. Newland, 1977).

PERSONALITY ASSESSMENT MOVEMENT

While tests of cognitive ability were rapidly evolving during the early part of the twentieth century, tests of personality were in their infancy. Although such devices as the Woodworth Personal Data Sheet were used in the military during WWI, the personality assessment movement received increased attention through the development of projective techniques such as the Rorschach Inkblot Test and the Thematic Apperception Test (TAT).

World War II, like the first war, did much to set the stage for rapid proliferation of testing practices. Indeed, psychological testing combined with the military need for assessment was one of the primary factors leading to the development of clinical psychology as an independent specialty (Maloney & Ward, 1976).

During the period following WWII, testing practices developed dramatically. Most tests developed during this period were tied to an intrapsychic disease model or state-trait conceptualization of behavior (cf. W. Mischel, 1968). Psychoanalytic theory generally accelerated assessment procedures that would reveal unconscious processes. Assessment practices emphasized an “indirect-sign” paradigm. Assessment was indirect in that measurement of certain facets of behavior were disguised or hidden from the client (e.g., such as in the TAT). Moreover, within the context of the intrapsychic model, testing practices were said to predict certain states or traits. The clinician’s task was to administer a battery of tests to a child and look for certain signs of traits or states. An example of this approach was represented in the work of Rappaport, Gill, and Schafer (1945). In their classic book, the authors demonstrated how a battery of tests (e.g., TAT, Rorschach, WAIS) could be used to diagnose deviant behavior within the intrapsychic model (in this case, the psychoanalytic model).

Similar to the sign approach was the “cookbook” method of assessment, which reached a zenith during the mid-1950s (cf. Meehl, 1956). An example of this approach is the Minnesota Multiphasic Personality Inventory (MMPI; Hathaway & McKinley, 1943). As these authors noted, one of the presumed advantages of the cookbook approach was that “it would stress representativeness of behavioral sampling, accuracy in recording and cataloguing data from research studies, and optional weighting of relevant variables and it would permit professional time and talent to be used economically” (p. 243).

Emergence of Behavior Modification and Assessment

Behavior modification (also referred to as behavior therapy) and the related assessment procedures associated with this model have made a tremendous impact on psychology and education (Kazdin, 1978; Kratochwill & Bijou, 1987). As some historical reviews illustrate (Hersen, 1976; Kazdin, 1978), behavior therapy represented a departure from traditional models of assessment and treatment of abnormal behavior, both psychological and educational. Although the history of behavior therapy cannot be traced along a single line, practice was characterized by diversity of viewpoints, a broad range of heterogeneous procedures with vastly different rationales, open debates over conceptual bases, methodological requirements,

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and evidence of efficacy (Kazdin & Wilson, 1978). Some reports of behavioral treatment followed Watson and Raynor's (1920) work in conditioning of fear in a child, but a significant impetus to behavioral assessment and treatment is commonly traced to the publication in 1958 of Joseph Wolpe's reciprocal inhibition therapy.

Independent of Watson's and Wolpe's work was research in the psychology of learning, in both Russia and the United States. Particularly important in learning research was operant conditioning, which Skinner brought into focus in the late 1930s (e.g., Skinner, 1938). The evolution of operant work into experimental and applied behavior analysis had an extremely important influence on the development of behavior therapy and assessment practices in general.

Although behavior therapy and assessment evolved considerably over the years, some general characteristics represented unities within the heterogeneity of evolving practice:

1. Focus upon current rather than historical determinants of behavior;
 2. Emphasis on overt behavior change as the main criterion by which treatment should be evaluated;
 3. Specification of treatment in objective terms so as to make replication possible;
 4. Reliance upon basic research in psychology as a source of hypotheses about treatment and specific therapy techniques; and
 5. Specificity in defining, treating, and measuring the target problem in therapy.
- (Kazdin, 1978, p. 375)

With the advent of behavior modification and its proliferation, a new assessment role also developed, particularly for clinical child and school psychologists. Behavioral assessment emphasized *repeated measurement* of some target problem prior (baseline), during, and after (follow-up) the intervention. Hersen and Bellack (1976a) noted that the psychologist's expertise in theory and application of behavioral therapy techniques (e.g., classical and operant conditioning) also enabled both an *assessment* and a *treatment* role to emerge in psychiatric settings. This focus was also to occur as a basis for the scientist-practitioner model of psychological services (Hayes, Barlow, & Nelson-Gray, 1999) and represented a strong foundation for the evidence-based treatment movement (Kratochwill & Stoiber, 2002) and what is now called response to intervention in psychological practice in schools (Brown-Chidsey & Steege, 2006; Kratochwill et al., 2007). Thus, the psychologist in various settings (e.g., clinics, hospitals, schools) became involved in direct service rather than engaged in only testing and diagnosis, although this was slower to evolve in schools. Behavior modification provided the impetus for these new roles and has continued to move practice forward in both prevention and treatment.

Developments in behavioral assessment also influenced the field of personality assessment in general. In many respects, assessment has acted as a barometer for the thinking of personality theorists. For example, a barometer of change in views about assessment has been the evolution of the title of the journal

specifically devoted to assessment in professional psychology (Goldfried, 1976). The journal, founded in 1936, was initially entitled *Rorschach Research Exchange*. Other projective techniques came into existence in the assessment process, and by 1947 the journal title was changed to *Rorschach Research Exchange and Journal of Projective Techniques*. Gradually, the more objective personality assessment techniques (e.g., the MMPI) were being used, and in 1963 the title was again changed to *Journal of Projective Techniques and Personality Assessment*. Projective techniques continued to show disappointing research results, and in 1971 this may have prompted the journal's change to the title *Journal of Personality Assessment*.

Nevertheless, there remained some doubt as to whether the future direction of assessment would take a distinct behavioral orientation. Even in 1963, when the journal *Behavior, Research, and Therapy* made its appearance, the issue was raised as to whether there would be a large enough readership to justify its existence (Brady, 1976). However, as Hersen and Bellack (1976a) documented, the future looked very positive, as reflected in major journals inaugurated in the United States between 1968 and 1970 (e.g., *Journal of Applied Behavior Analysis*, *Behavior Therapy*, *Journal of Behavior Therapy and Experimental Psychiatry*). Moreover, several other behaviorally oriented journals emerged (e.g., *Cognitive Therapy and Research*, *Biofeedback and Self-control*), and specific journals devoted primarily to behavioral assessment (e.g., *Behavioral Assessment*, *Journal of Behavioral Assessment*) were formed, although they were eventually changed.

CONCEPTUAL MODELS OF HUMAN BEHAVIOR: IMPLICATIONS FOR CHILD THERAPY

An extraordinary amount of theory and research has been generated that has a bearing on child therapy (Morris & Kratochwill, in press). As a result, tremendous amounts of data have been accumulated concerning the origins, development, influences, and variations in human behavior. Nevertheless, the wealth of information has clearly not resulted in any integrated view of human performance. Indeed, the current state of knowledge generated from the various conceptual models has not only resulted in the lack of an integrated view of human functioning, but has yielded various conceptual positions that are diametrically opposed and has spawned debate in the evidence-based practice movement (Kratochwill & Shernoff, 2004).

Because our understanding of human behavior is influenced by basic assumptions concerning the "why" of behavior, assessment and treatment practices often become inextricably interwoven with the particular conceptual model of human functioning held by the psychologist. Different models, with their different perspectives on behavior, yield vastly different assessment approaches and data that are used in making decisions relative to assessment and intervention. In this section, we review some models of human behavior that influence contemporary psychological practices. The models reviewed include the medical or biogenetic model, intrapsychic disease model, psychoeducational process test-based model, and behavioral model. These various models have been discussed by others in the professional literature, and due to space limitations we are not able to discuss them in detail or cover other

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models (see Kratochwill & Morris, 1993, for coverage of other models). The models differ in their conceptualization of deviant behavior and assessment procedures and devices (sometimes), as well as the nature of the intervention implemented. Each model is discussed in the context of various components and considerations in its use.

Medical or Biological Model

Components

The medical model is one of the oldest approaches guiding assessment and treatment. The medical model can be applied in either a literal or a metaphorical context (Phillips, Draguns, & Bartlett, 1975). We view the model in its literal sense. That is, abnormal biological systems can be traced to some underlying biological pathology which is then treated. For example, defective hearing (symptom) may be traced to some type of infection (the cause), which may be treated with antibiotics. The prevalence of medical problems in children is actually quite high (see Bear & Minke, 2006, for an overview of various problems). A variety of health problems may be found in children in the school setting, including those children who are chronically ill and those with nutritional disorders (undernutrition, obesity), hearing and visual disorders, dental problems, disorders of bones and joints, infectious disorders, respiratory disorders, allergic disorders, urinary disorders, and drug-related problems. It seems clear that a medical model is appropriate to deal with the diversity of medical problems in the schools.

The medical model is a disease-based model. The pathology is assumed to be within the individual, although the causes may be environmental. Some theorists consider biological deviations to be the necessary and sufficient factors in the development of the pathology; others claim that chemical or neurological anomalies are the necessary but not sufficient condition for pathogenesis. Here, environmental conditions may or may not catalyze a constitutional predisposition to pathology.

Considerations

Medical model procedures are clearly justifiable when there is no basis for assuming physiological change in the organism as a result of the sociocultural environment. Controversial practices characterize medical model procedures when they are used to interpret measures of learned behavior (e.g., various forms of disruptive behavior in children, academic skill deficits). Although genetic, developmental, neurological, and biochemical factors all undoubtedly influence behavior, in reality these factors are not discrete entities. They are interwoven with one another as well as with environmental factors.

Applications of the medical model influence assessment and treatment in various ways. Organic factors may not always be the cause of an observed medical or physical problem. There is growing recognition that psychological factors may affect a physical condition and that physical symptoms may have no known organic or physiological basis. In the past, various concepts such as “psychosomatic” or

“psychophysiological” have been used to describe the psychological basis for physical or somatic disorders. However, such perspectives may be of limited usefulness because they imply a simplistic relation between psychological factors and a distinct group of physical disorders when, in fact, there may be a complex interaction of biological, environmental, psychological, and social factors contributing to various physical disorders (Siegel, 1983). Long ago, Lipowski (1977, p. 234) noted:

The concept of psychogenesis of organic disease . . . is no longer tenable and has given way to the multiplicity of all disease . . . the relative contribution of these factors [social and psychological] varies from disease to disease, from person to person, and from one episode of the same disease in the same person to another episode. . . . If the foregoing arguments are accepted then it becomes clear that to distinguish a class of disorders as “psychosomatic disorders” and to propound generalizations about psychosomatic patients is misleading and redundant. Concepts of single causes and circular causal sequences for example, from psyche to soma and vice versa, are simplistic and obsolete.

The point here is that even in the treatment of physical disease, psychological factors may be involved. Exclusive reliance on medical (drug) interventions may bias treatment in the sense that psychological (or other) aspects of functioning may be ignored. Problems most often arise when behavioral measures that can be influenced by a variety of environmental circumstances are used to assess the potential organic origins of a perceived symptom. The more the individual differences observed on a behavioral measure are influenced by environmental factors, the more the measure has the potential of being biased. Such a circumstance may arise when the environmental factors that influence the measure differ across cultural groups.

Psychodynamic Model

Components

The psychodynamic model proposes that maladaptive behaviors are symptoms resulting from underlying processes analogous to disease in the literal sense. This model is sometimes labeled the medical model in psychological and psychoeducational practice. Because conceptualization and treatment of abnormal behavior initially resided largely within the domain of medicine, the medical model was extended to treatment of abnormal behavior, both medical and psychological. The historical developments of the model are not reviewed in detail here; instead, the reader is referred to several historical sources that discuss this approach (e.g., Alexander & Selesnick, 1968; Kraepelin, 1962).

The psychodynamic approach can be characterized by the following:

(a) uses a number of procedures, (b) intended to tap various areas of psychological functioning, (c) both at a conscious and unconscious level, (d) using projective techniques as well as more objective and standardized tests, (e) in both cases, interpretation may rest on symbolic signs as well as scorable responses, (f) with the goal of describing individuals in personological rather than normative terms. (Korchin & Schuldberg, 1981, p. 1147)

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As is evident in this characterization, the psychodynamic approach is aimed at providing a multifaceted description and inferences. This process is said to promote a unique and individual approach to child assessment.

The psychoanalytic model represents one example of the psychodynamic disease paradigm, as do many other dynamic models of human functioning. The dynamic approach to assessment of deviant behavior is best elucidated in the context of assumptions held about the internal dynamics of personality (W. Mischel, 1968). Traditionally, dynamic approaches inferred some underlying constructs that account for consistency in behavior. Assessment is viewed as a means of identifying some sign of these hypothetical constructs, which are of central importance in predicting behavior. This *indirect sign paradigm* in assessment (cf. W. Mischel, 1972, p. 319) includes the use of a large variety of projective tests (e.g., Rorschach, TAT, Human Figure Drawings, Sentence Completion Tests) as well as objective personality inventories (e.g., MMPI-A for adolescents, MMPI-II, California Psychological Inventory) that are still used in contemporary practice.

A second feature of the traditional psychodynamic approach is that it assumes that behavior will remain stable regardless of the specific environmental or situational context. In this regard, test content is of less concern and may even be disguised by making items ambiguous, as is true in projective testing (Goldfried & Linehan, 1977). Indeed, a particular response to a projective test is rarely examined in view of the overt qualities of the situation in which the test occurred, but rather is interpreted in the context of a complex theoretical structure.

Considerations

The dynamic approach to assessment can be criticized on several grounds. One problem is the preoccupation with historical events, often in the absence of any verifying data. The second criticism relates to the emphasis during assessment on the individual's presumed unconscious beliefs, attitudes, motivations, and so forth, as interpreted through projections. Third, behavior is assumed to be a consequence of internalized pathological features. This assumption ignores evidence showing that many behaviors are situationally specific.

The use of various psychodynamic indirect measurement procedures has direct implications for child assessment and treatment. These measures continue to be used in clinical practice despite data indicating their low predictive validity (cf. Hersen & Barlow, 1976). When these issues became important, Goldfried and Kent (1972) noted that although the interpretation of certain signs on the Bender-Gestalt test (Hutt & Briskin, 1960) had no empirical support (cf. Goldfried & Ingling, 1964; Hutt, 1968), the revised version of the Bender-Gestalt manual presumably discounted these research findings and still recommended the use of questionable interpretations. A rather extensive literature on the comprehensive (predictive) validity of indirect measurement techniques (T. Mischel, 1971; W. Mischel, 1968) suggested that the predictions made on the basis of self-reports were equal to or superior to those made on the basis of indirect measurement techniques that are interpreted and scored by clinical experts. These findings held true for a wide variety of content areas (cf. W. Mischel, 1972).

Perhaps the most important issue that has been raised over traditional dynamic assessment is its relation to treatment. A number of authors over the years have noted that there was little relation between traditional assessment and treatment (Bandura, 1969; Goldfried & Pomeranz, 1968; Kanfer & Phillips, 1970; Peterson, 1968; Stuart, 1970). Thus, although traditional dynamic assessment may lead to a diagnosis that may in turn lead to the recommendation of a particular treatment, diagnoses resulting from traditional assessment methods cannot accurately predict what particular treatment mode should be implemented (Ciminero, Calhoun, & Adams, 1977; Stuart, 1970).

Psychometric Test-Based Model

The psychometric test-based model bears similarity to the psychodynamic disease model in that underlying processes, specifically process deficits, are said to account for learning and behavior problems. In many respects, this model can be considered a part of the dynamic model; however, a psychometric approach is characterized by the use of a variety of individual and group tests to compare individuals along various trait or construct dimensions. In trait theory approaches, various personality structures are said to account for an individual's behavior (W. Mischel, 1968, 1974). Trait theorists disagreed on what traits explained certain patterns of behavior, but generally agreed that certain behaviors were consistent across time and settings and that these patterns are expressions or signs of underlying traits.

In contrast to the psychodynamic position, trait assessors traditionally placed a high premium on objective administration and scoring of tests. Attempts usually were made to establish formal reliability and validity of the various measures used. On empirical grounds, historically this statistical approach proved generally superior to the more clinical method in predicting behavior (cf. Korchin & Schulberg, 1981), but questions have been raised over the manner in which the research reflects the reality of decision making in actual clinical practice.

Closely related to the psychometric approach is the psychoeducational process model used by many practicing school psychologists. The model can be considered analogous to the psychometric trait model in that assessment focuses on internal deficits, except its context is psychoeducational rather than personality or emotionally oriented. Because a variety of cognitive, perceptual, psycholinguistic, psychomotor, and neuropsychological processes or abilities have been cited as causes of children's academic failure, norm-referenced cognitive (e.g., WISC, McCarthy, Stanford-Binet), perceptual (Bender Visual Motor Gestalt Test, Developmental Test of Visual Perception, Developmental Test of Visual-Motor Integration), psycholinguistic (e.g., Illinois Test of Psycholinguistic Abilities), and psychomotor (e.g., Purdue Perceptual-Motor Survey) tests are used to assess these abilities.

Most of these assessment procedures follow a diagnostic-predescriptive approach. Ysseldyke and Mirkin (1982, p. 398) noted:

All of the diagnostic-perspective approaches based on a process dysfunction viewpoint of the nature of exceptionality operate similarly. When students experience academic difficulties it is presumed that the difficulties are caused by inner process dysfunctions or

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disorders. Tests are administered in an effort to identify the specific nature of the within-child disorder that is creating or contributing to learning difficulties. Disorders or deficits are test named (e.g., figure-ground deficiencies, auditory sequential memory deficits, body image problems, eye-hand coordination difficulties, visual association dysfunctions, and manual expression disorders). Specific interventions are developed to “cure” the underlying causative problems.

Considerations

There are several important implications that can be raised with regard to the assessment tactics used in the psychometric model. First, because norm-referenced devices are commonly used in the model, the clinician must assume that clients tested have background and acculturation comparable to those on whom the test was standardized (cf. Oakland & Matuszek, 1977). Yet the point was frequently raised that standardized tests are biased and unfair to individuals from cultural and socioeconomic minorities because they reflect predominantly White, middle-class values and do not reflect the experiences and the linguistic, cognitive, and other cultural values and styles of minority individuals (Laosa, 1977). For example, although the norms for some tests (e.g., some group achievement and aptitude tests, the 1972 Stanford-Binet, WISC-IV) were generally good, norming on other instruments (e.g., Illinois Test of Psycholinguistic Abilities [ITPA], Leiter International Performance Scale, Slosson Intelligence Test) was quite inadequate.

A second issue is that research examining components of reliability and validity on various process measures has not been optimistic (Salvia & Ysseldyke, 1978; Ysseldyke & Salvia, 1974). For example, several early reviews of research on the ITPA (e.g., Bateman, 1965; Buros, 1972; Sedlak & Weener, 1973) drew attention to these limitations. The magnitude of the problems of inadequate norming, inadequate or incomplete reliability data, or questionable validity was nicely represented in data presented by Salvia and Ysseldyke (1978). Clearly, the potential for biased assessment practice is high given the poor psychometric properties of these instruments.

Behavioral Model

Components

Technically, there is no one model of behavior therapy, and contemporary behavior therapy, despite commonalities, is characterized by a great deal of diversity.* Historically, the different approaches in behavior therapy include applied behavior analysis (e.g., Baer, Wolf, & Risley, 1968; Bijou, 1970), mediational stimulus-response model (e.g., Rachman, 1963; Wolpe, 1958), social learning theory (e.g., Bandura, 1969, 1977b), and cognitive-behavior modification (e.g., Meichenbaum, 1974, 1977; Mahoney, 1974; Mahoney & Arnkoff, 1978.)**

*A detailed account of the history of behavior modification can be found in Kazdin (1978).

**These approaches are only briefly reviewed here. The reader is referred to Kazdin and Wilson (1978) as well as original sources within each approach for a more detailed presentation. The reader is also referred to Kratochwill (1982) and Kratochwill and Bijou (1987).

Applied Behavior Analysis

This form of behavior therapy developed from the experimental analysis of behavior (cf. Day, 1976; Ferster & Skinner, 1957; Sidman, 1960; Skinner, 1945, 1953, 1957, 1969, 1974). It emphasized the analysis of the effects of independent events (variables) on the probability of specific behaviors (responses). Contemporary applied behavior analysis focuses on behaviors that are clinically or socially relevant (e.g., various social behaviors, learning disorders, mental retardation, social skills) and adheres to certain methodological criteria (e.g., experimental analysis, observer agreement on response measures, generalization of therapeutic effects).

Advocates of applied behavior analysis use a more restrictive sense of the term “behavior” than other areas represented in the field of behavior therapy: behavior as the overt activity of an organism. Internal feelings and cognitions are typically not considered a major focus for the techniques of therapy, research, and practice. However, it must be stressed that applied behavior analysis focuses on the behavior of an individual as a total functioning organism, although there is not always an attempt to observe, measure, and relate an organism’s entire response taking place at one time (Bijou, 1976; Bijou & Baer, 1978).

Many intervention procedures associated with applied behavior analysis are derived from basic laboratory operant research (e.g., positive and negative reinforcement, punishment, time-out, response cost, shaping, fading stimulus control; see Bijou, 1976; Gelfand & Hartmann, 1975; Kazdin, 1980; Sulzer-Azaroff & Mayer, 1977). Assessment emphasizes the individual application of these procedures and a functional evaluation of their effectiveness (Bijou & Grimm, 1975; Emery & Marholin, 1977). Behavior analysis refers to the study of organism-environment interactions in terms of empirical concepts and laws for understanding, predicting, and controlling organism behavior and repeated measurement of well-defined and clearly observable responses (Bijou, 1976; Bijou, Peterson, & Ault, 1968; Bijou, Peterson, Harris, Allen, & Johnson, 1969).

Neobehavioristic Mediation Stimulus-Response Model

The neobehavioristic mediational stimulus-response (S-R) model is derived from the work of such learning theorists as Pavlov, Guthrie, Hull, Mower, and Miller (e.g., Eysenck, 1960, 1964; Rachman, 1963; Wolpe, 1958). These approaches are characterized by “the application of the principles of conditioning, especially classical conditioning and counter-conditioning to the treatment of abnormal behavior” (Kazdin & Wilson, 1978, p. 3). Although intervening variables and hypothetical constructs play a role in assessment and intervention, covert activities are most commonly defined in terms of a chain of S-R reactions, with cognitive formulations de-emphasized.

A number of treatment procedures such as counterconditioning and systematic desensitization have been used to treat anxiety reactions, phobic patterns, and other strong emotional disorders in children (Morris & Kratochwill, 1983; Morris, Kratochwill, Schoenfield, & Auster, in press). Systematic desensitization, based originally on the principle of reciprocal inhibition (Wolpe, 1958), has been

successfully used to treat a wide range of child and adult problem behaviors (see Morris & Kratochwill, 1983; Morris et al., in press). Assessment in the mediational S-R model relies on survey schedules (e.g., fear survey schedules), self-support data, and direct measures of client behavior (as in the use of behavioral avoidance tests).

Cognitive-Behavior Therapy

A unifying characteristic of the cognitive-behavior therapy approach was an emphasis on cognitive processes and private events as mediators of behavior change (Kendall, 1981b). The source of a client's problems were said to be related to the client's own interpretations and attributions of his or her behavior, thoughts, images, self-statements, and related processes (Kazdin & Wilson, 1978). Contemporary cognitive-behavior therapy emanates from Ellis's (1962) rational-emotive therapy, Beck's cognitive therapy, and Meichenbaum's self-instructional training. Treatment strategies are quite diverse and include such techniques as problem solving, stress inoculation, self-instructional training, coping skills training, language behavior therapy, thought stopping, and attribution therapy. These techniques represent procedures not generally addressed by other behavior therapy approaches (e.g., applied behavior analysis).

Assessment in cognitive-behavior therapy tended to be quite broad-based, taking into account many different dimensions of behavior. Yet there was still an emphasis on defining the nature of the target problem, whether overt or covert. In some cases, a more traditional functional analysis of behavior, which emphasizes a careful examination of environmental antecedents and consequents as related to a certain response repertoire, was recommended (e.g., Meichenbaum, 1977).

Some specific purposes for cognitive assessment were outlined by Kendall (1981a, pp. 3–4):

1. To study the relationships among covert phenomena and their relationship to patterns of behavior and expressions of emotion.
2. To study the role of covert processes in the development of distinct psychopathologies and the behavioral patterns associated with coping.
3. To confirm the effects of treatment.
4. To check studies where cognitive factors have either been manipulated or implicated in the effects of the manipulation.

Social Learning Theory

Social learning theory is based on the original work of Bandura and his associates (e.g., Bandura, 1969, 1971, 1977b; Bandura & Walters, 1963) and has evolved considerably over time. Bandura noted that in addition to outcome expectation, a person's sense of his or her ability to perform a certain behavior mediates performance. He referred to these latter expectations as efficacy expectations or self-efficacy, and suggested that they have important implications for treatment. Psychological treatment and methods were hypothesized to produce changes in a child's expectations of self-efficacy, as in the treatment of phobic behavior. Self-efficacy was said to determine the activation and maintenance of behavior strategies for coping with

anxiety-eliciting situations. Self-efficacy expectations were also said to be modified by different sources of psychological influence, including performance-based feedback (e.g., participant modeling), vicarious information (e.g., symbolic modeling), and physiological changes (e.g., traditional verbal psychotherapy; cf. Kazdin & Wilson, 1978). Intervention procedures such as symbolic modeling (e.g., Bandura, 1971), direct modeling (Bandura, 1977b; Rosenthal, 1976), and self-modeling (Brody & Brody, 1977) have been associated with the social learning theory approach. For example, modeling historically has been used to treat a variety of children's fears (e.g., animal fears, inanimate fears, dental and medical fears; Morris & Kratochwill, 1983; Morris et al., in press), socially maladjusted children (e.g., social withdrawal, aggression), distractibility, and severe deficiencies (e.g., autism, mental retardation) as well as a wide range of academic behaviors (cf. Zimmerman, 1977). In all these approaches, social learning theory stressed that human psychological functioning involved a reciprocal interaction between the individual's behavior and the environment in that a client is considered both the agent as well as the target of environmental influence, with assessment focusing on both dimensions of behavior.

Unifying Characteristics

Despite apparent diversity among the different areas within behavior therapy, several dimensions set it apart from traditional forms of psychological assessment and treatment, particularly the test-based psychometric models and psychodynamic models (Hartmann, Roper, & Bradford, 1979). Contemporary behavior therapy consists of the following characteristics:

1. A strong commitment to empirical evaluation of treatment and intervention techniques;
2. A general belief that therapeutic experiences must provide opportunities to learn adaptive or prosocial behavior;
3. Specification of treatment in operational and, hence, replicable terms, and
4. Evaluation of treatment effects through multiple-response modalities, with particular emphasis on overt behavior. (Kazdin & Hersen, 1980, p. 287)

Behavior therapy has become very diverse over time and includes a number of therapeutic strategies that were excluded from the field during the early years (e.g., rational-emotive therapy). Although these characteristics are tied to the therapeutic aspects of the behavioral approach, each can also be conceptually representative of the behavioral approach to child treatment (Bergan & Kratochwill, 1990).

HISTORICAL CONTEXT OF CHILD THERAPY

The Early Years

As we noted previously, although the study of psychological problems among adults can be traced back as far as the ancient Greeks (if not further), the study

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of child psychopathology represents a relatively recent phenomenon in the history of psychological treatment. The most famous early example of such study is Jean Itard's examination of and attempt to educate the Wild Boy of Aveyron beginning in 1799. However, an increased focus on problems of childhood would have to follow a greater focus on childhood as a distinct period in human development and an increased interest in the nature of psychological problems in children. The emergence of compulsory education marks an important milestone in the development of such interest, in part due to the large number of children who struggled in school.

The study of children in the United States was largely founded by G. Stanley Hall, whose work spanned 1883 through 1918 (Davidson & Benjamin, 1987). Hall focused on problems with education, and although he was not primarily concerned with psychopathology, his work helped promote a better understanding of the problems of childhood.

Clifford Beers played an important role in reversing the attitude toward the treatment of the mentally ill generally, and later this focus was applied to children. Beers became clinically depressed and suicidal as a Yale University law student. After his hospitalization, he wrote *A Mind That Found Itself* (1908), a book describing the poor treatment he received while institutionalized. The success of the book helped inform the public of the terrible conditions in state hospitals. Beers would form a number of organizations, including the Connecticut Society for Mental Hygiene (in 1908) and the National Committee for Mental Hygiene (in 1909), which promoted better conditions in state hospitals, better treatment methods, and research on the prevention and treatment of psychopathologies. This increased concern for the treatment of persons with mental illness brought about "mental hygiene" programs in schools (Morris & Kratochwill, in press-b).

Lightner Witmer is credited as the first clinical psychologist, although he had a strong interest in schools and has an APA Division 16 (School Psychology) award named after him. Witmer established the first psychological clinic in the United States, at the University of Pennsylvania, in 1896. His first client was a 14-year-old boy who had difficulty spelling (Benjamin, 2005). In the first year of the clinic's operation, Witmer and his students saw a total of 24 children between the ages of 3 and 16 years, who had such presenting problems as "learning difficulties, speech problems, and possibly chorea, hydrocephalus, and hyperactivity" (P. McReynolds, 1996, p. 238). Witmer published the first journal devoted to clinical psychology, titled *The Psychological Clinic*, in 1907 (Routh, 1996; Witmer, 1907/1996). The focus on children with problems in schools would eventually lead to the development of a specialty of psychology that involved practice in schools.

In 1909, the Cook County Juvenile Psychopathic Institute in Chicago was formed under the leadership of William Healy. The institute staff worked directly with juvenile offenders and stressed an interdisciplinary approach to studying juvenile issues (e.g., psychiatrists, psychologists, and social workers worked together on particular cases, taking into account multiple causes and perspectives). Aided by Beers's National Committee for Mental Hygiene, numerous child guidance clinics also developed across the country over the next several decades, and by 1930 there were about 500 child guidance clinics in the United States (Kanner, 1948).

Through the introduction of dynamic psychiatry and psychoanalysis during the early twentieth century, specifically the work of Sigmund Freud in Vienna and Adolph Meyer in the United States, the psychodynamic approach maintained that the origins of behavior problems lay in the past experiences (typically, childhood) of the person (Kanner, 1948), thereby turning attention to childhood. For example, with adult patients, these experiences were explored retrospectively by the psychiatrist or psychoanalyst, who attempted to draw causal relationships between these past experiences and the patients' present behavior. During the early years of the dynamic psychiatry movement, children were usually not seen in treatment by psychiatrists (Kanner, 1948). Nevertheless, the retrospective search for the relationship between early childhood events and present functioning aroused sufficient interest among professionals that some began to acquaint themselves specifically with the behavior problems of children as well as with the dynamics that contributed to their difficulties (Morris & Kratochwill, in press-a). This psychodynamic interest in children was not formally realized in the literature until the publication in 1909 of Freud's (1909/1963) detailed case of "Little Hans." Interestingly, although Freud formulated his etiological theory of phobias on the basis of Hans's symptoms and experiences, he did not treat Hans directly; Hans's father treated him under Freud's direction and supervision (Morris & Kratochwill, 1983). Although Hans's problem was treated successfully, it was not until at least 15 to 20 years later that Freudian psychoanalytic child therapy came into existence. This was largely due to the contributions and adaptations of Freud's work for children by Melanie Klein, Freud's student, and his daughter, Anna Freud, and the subsequent publication beginning in 1945 of Anna Freud's multivolume edited book series (with Hans Hartmann and Ernst Kris), *The Psychoanalytic Study of the Child*. The changes made by these women, as well as the earlier psychoanalytic therapy work with children first initiated by Hermine Hug-Hellmuth (the third woman to join Freud's Vienna Psychoanalytic Society during the 1900s), made Freud's therapeutic approach very relevant to children and contributed to its increasing popularity in the twentieth century and later influence in the development of many other forms of child and adolescent psychotherapy (Benveniste, 1998).

Some of the major methodological changes that were made for children in Freud's psychoanalysis were the substitution of play activities for the technique of free association and the use of drawings and dreams to understand a child's problems. For example, through the use of the medium of play, both Klein and Anna Freud discovered that children were able to represent to the child analyst their inner conflicts and perceptions of important relationships in their lives, as well as portray in their play their unique feelings about, perceptions of, and concerns about their various pleasurable and traumatic experiences (Morris, Li, Lizardi-Sanchez, & Morris, 2002; Warshaw, 1997).

Morris and Kratochwill (in press-b) identified some additional developments that influenced the focus of child therapy. First, as we noted previously, the intelligence testing movement had a tremendous influence on the study of children; in particular, it became possible to learn the extent to which a particular child differed from the norm in cognitive ability. It also demonstrated clearly the diversity of children in

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terms of their comprehension of classroom instruction (Kanner, 1948) and spawned a decade of debate on bias in testing and eventually, in the twenty-first century, federal regulations that would expand the focus of special services for children in schools (Kratochwill et al., in press).

Second, the formation of professional associations contributed to the increasing emphasis on the treatment of children. The first professional association was the Association of Medical Officers of American Institutions for Idiots and Feeble-minded Persons, founded in 1876, which evolved into the present-day American Association on Mental Retardation. Its first president was Edward Seguin. In 1892, another professional association was formed, the American Psychological Association, in which Witmer was a charter member. G. Stanley Hall was the first president of APA, and James Cattell was one of the first members of the Council (Board of Directors of APA) and the fourth president of APA. In 1922, the Council for Exceptional Children was formed; it consisted primarily of educators and other professionals, although parents were members too. The fourth early association was the American Orthopsychiatric Association, founded in 1924 and consisting primarily of psychiatrists, applied psychologists, and social workers, although educators as well as other professionals and parents were also members. Each of these groups encouraged the formulation and conduct of research with children having behavior and learning disorders, as well as the sharing of information regarding effective psychological and/or educational interventions.

Third, a treatment approach emerged that was initially much less popular than psychoanalytic child therapy. This approach was behaviorism and later became known as the behavior modification or behavior therapy movement (Kazdin, 1978; Morris, 1985). As we noted earlier, behavior modification emerged largely from the experimental psychology laboratory rather than from direct interaction with patients and was based on theories concerning how people and animals learn to behave through S-R learning and conditioning rather than through the conscious or unconscious thinking found in psychoanalytic writings. The two most famous behaviorists associated with this movement are John B. Watson (1913, 1919), often referred to as the “father of behaviorism,” and B. F. Skinner (1938, 1953), the behavioral researcher and theorist who extended Watson’s behaviorist views and developed a learning paradigm that Skinner referred to as “operant conditioning.” The behavior modification and behavior therapy procedures that were derived from various learning theories were largely confined for many years to research settings. In fact, it was not until the mid-1960s to the late 1970s that these procedures began being applied on a regular basis in children’s residential treatment settings, regular and special education classrooms, and outpatient mental health settings (Morris, 1985; Morris et al., 2002).

Developments in behavior modification set the stage for the evidence-based practice movement, when many of the procedures were implemented in research that offered strong support for effective outcomes, first with adults and eventually with children. Behaviorism also set the stage for prevention models in educational settings with particular emphasis on such models as positive behavior support, a movement with its roots in applied behavior analysis (Crone & Horner, 2003; Crone, Horner, & Hawken, 2004).

DEVELOPMENT OF THE EVIDENCE-BASED INTERVENTION AND PRACTICE MOVEMENT

As has been evident in the previous sections of this chapter, a number of different events shaped the future of psychological assessment and treatment of children. As the need for services for children and families increased, attention turned to the training of professionals in psychology. By the 1940s, considerable attention had been given to the need for a training model in clinical psychology. Up to this point, a great variety of training curricula existed in training programs, and training was often rushed and inadequate. Some programs produced statistically sophisticated therapists, and others focused on more service-oriented practice (Hayes et al., 1999). The issue had been present at least since 1918, when Leta Stetter Hollingworth argued that a training model was critical in the development of clinical psychology as a profession (Benjamin, 2005). However, there was little resolution until 1949, when 73 professionals met in Boulder, Colorado, for 15 days to discuss the training of clinical psychologists. The result became known as the scientist-practitioner model (or the Boulder model) and would profoundly influence professional psychology in subsequent years and, eventually, the evidence-based practice movement.

Training Psychologists: Advent of the Evidence-Based Practice Focus

The events leading up to the Boulder Conference were perhaps as rooted in social trends as they were in professional trends. By the 1940s, there was growing concern for mental health in the United States. The year 1944 saw written instruments and assessments used on close to 20 million persons (Reisman, 1976). World War I produced an abundance of psychological casualties for whom too few professionals could provide adequate care. In the wake of World War II, as professionals took steps to improve the quality of their care, the Veterans Administration officially declared clinical psychology a health care profession. The next major step was to improve and homogenize the training of clinical psychologists. Pressure to do so began to come from a variety of sources.

In 1941, the American Association for Applied Psychology (AAAP) endorsed a day-long conference for the development of a committee for improved training of clinical psychologists. The subsequent report, largely focused on training for the treatment of psychopathology, supported a 4-year PhD program in psychology: a year for systematic foundation in psychology, a year for psychometric and therapeutic principles and practice, a year for internship, and a final year for dissertation (Shakow, 1942). Reactions were largely positive, and the AAAP formed the Committee on Training in Clinical Psychology (CTCP). The integration of the AAAP with the APA in 1944 prevented prompt action, but the seeds were planted for the organization of professional training.

With concern for the welfare of returning soldiers, an increasing shortage of psychologists in the public, and concern over the quality of professional training, the VA and the U.S. Public Health Service (USPHS) began to commit funds for the training of clinical psychologists. In 1947, the VA and USPHS requested that the

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APA assist in determining ways to train greater numbers of professional psychologists (Baker & Benjamin, 2000). The APA turned to the CTCP with four requests: recommend a clinical psychology training program, develop standards for institutions training clinical psychologists, visit and study these institutions, and maintain contact with other organizations invested in these problems (e.g., the American Orthopsychiatric Association, the National Committee for Mental Hygiene; APA, 1947). The chair of the CTCP, David Shakow, sent committee members a copy of a report titled "Graduate Internship Training in Psychology" (Shakow et al., 1945) and asked that it be critiqued. The Shakow Report, as it would become known, garnered significant support as the most comprehensive set of clinical psychology training recommendations to date.

In 1948 and 1949, the CTCP visited a number of training programs and awarded accreditation to 43 of them (APA, 1949). Although the committee was largely impressed with the efforts put forth by these programs, significant concerns were raised. First, it was contended that the focus of training was too narrow. There was certainly a social need for emphasis on psychiatric hospitals and the severely disturbed patients, but the committee argued that clinical psychologists should be trained to deal with other social issues. Second, many programs taught a variety of clinical techniques, placing limited emphasis on research methodology and theory—an issue that would become central to the Boulder Conference later that year (Baker & Benjamin, 2000).

When the Boulder Conference began, the adaptation of the scientist-practitioner model was not entirely agreed on. There was great concern that it would be difficult to train all graduate students in both research and practice. The role of research in training likely was the most difficult topic covered in the conference. However, by the end of the conference, agreement was reached among the large majority. In the most comprehensive report of the conference, titled *Training in Clinical Psychology*, Victor Raimy (1950, p. 23) reported, "The original chasm seemed to have largely disappeared and recognition of the importance of including research training in the preparation of all clinical psychologists was generally accepted." In fact, the decision to recommend training in research and practice did not require a compromise, but instead was nearly a unanimous consensus.

Recommendation for preparation in both areas rested on five major considerations. First, although most students would focus their career on either research or practice (not both), all students should be trained in both to encourage "cross fertilization and breadth of approach" (Raimy, 1950, p. 81) within the profession. That is, dual training would benefit both foci through collaboration; in addition, the study of research and practice would deter programs' tendencies to produce narrow thought processes and subsequent actions. Second, the extreme lack of dependable knowledge in the field demanded (and still demands) a need for research in clinical psychology. As Raimy reports, "Participants at the conference displayed considerable humility with respect to present techniques" (p. 80). Third, it was believed that students of clinical psychology should be capable of carrying out both roles of clinician and researcher. The number of applicants greatly surpassed the number of available positions in training programs; therefore, participants in the conference concluded that applicants should be considered for acceptance only if they showed

promise in both areas of study. Fourth, it was noted that researchers would have a better knowledge of important research topics if they were directly involved with the clinical process. Fifth, services provided by clinical practice could provide financial support for research causes. This has become even truer in the current age of managed care. Increasingly, health care systems rely on evidence-based practices for success in the marketplace (Hayes et al., 1999).

The following summarizes the roles of clinical psychologists as concluded by participants at the Boulder Conference:

The basic needs of society for the services of clinical psychology are of two major kinds:

a. Professional services to:

- (1) Individuals through corrective and remedial work as well as diagnostic and therapeutic practices
- (2) Groups and social institutions needing positive mental hygiene programs in the interest of better community health
- (3) Students in training, members of other professions, and the public through systematic education and the general dissemination of information

b. Research contributions designed to:

- (1) Develop better understanding of human behavior
 - (2) Improve the accuracy and reliability of diagnostic procedures
 - (3) Develop more efficient methods of treatment
 - (4) Develop methods of promoting mental hygiene and preventing maladjustment.
- (Raimy, 1950, pp. 20–21)

Though the decision to endorse the scientist-practitioner model was clear, participants recognized that there would be great difficulties involved in combining both roles. In this respect, participants in the Boulder Conference clearly anticipated the scientist-practitioner gap. A major criticism of the scientist-practitioner model developed at the Boulder Conference is its demonstrated failure to involve clinicians in research. The model has been much more universally adopted in research than in practice. The average PhD psychologist has published very few, if any, research articles.

Recent Developments in the Evidence-Based Intervention and Practice Movement

Despite great momentum in research in professional psychology, the evidence base for treatment of a variety of childhood disorders and problems lagged behind outcome research with adults. Nevertheless, as attention turned to mental health issues in children, psychologists began to review the literature on prevention and intervention (therapy) outcome research. To perform this task they needed guidelines to review the growing literature on prevention and intervention. Over the past decade criteria have been produced for developing evidence-based interventions and guidelines for how such interventions should be evaluated (see Barlow, 2004; Kratochwill & Stoiber, 2002). With pressure mounting from managed health care, governmental agencies, and professional organizations, a major task force on

evidence-based interventions was formed by the APA Task Force on Promotion and Dissemination of Psychological Procedures (1995). The report stimulated considerable debate. The major controversial themes were identified: (a) The focus of research studies identified as evidence-based in the adult literature were identified as behaviorally oriented; (b) the criteria used were judged as potentially biased (e.g., methodological and statistical decision rules in the literature reviews); (c) the use of intervention manuals to standardize interventions was deemed problematic (e.g., manuals remove flexibility and adaptation to individual or group needs in psychotherapy); and (d) the generalizability of findings was deemed limited (i.e., whether and how research studies can be generalized to actual clinical practice).

Early in the evidence-based intervention movement school psychology explored evidence-based interventions and their implications for the field. Division 16 of the APA, the Society for the Study of School Psychology, and the National Association of School Psychologists supported the development of a Task Force on Evidence-Based Interventions in Schools (now co-chaired by Thomas R. Kratochwill and Kimberly Hoagwood).

The initial purpose of the School Psychology Task Force was to examine and disseminate the knowledge based on what prevention and intervention programs or approaches for children, youth, and families demonstrate empirical support for application in the school and community and to facilitate strong research methodologies, technologies, and innovations. The Task Force worked cooperatively with the APA's Division of Clinical Child and Adolescent Psychology (Division 53).

Another major direction taken in the evidence-based practice movement has involved the development of practice guidelines (White & Kratochwill, 2005). Various practice guidelines have been constructed by a variety of professional groups: the Agency for Health Care Policy and Research (AHCPR), the American Psychiatric Association, the National Institutes of Health, and the Division of Clinical Psychology (Division 12) of the APA. The AHCPR has developed guidelines for treating and diagnosing depression in primary care. The guidelines are primarily aimed at physicians and the general public. Practice guidelines of the American Academy of Child and Adolescent Psychiatry have been evolving for some time and provide a variety of foci for child intervention, including anxiety disorders, conduct disorders, and Attention-Deficit/Hyperactivity Disorder. The Division 12 Task Force (Chambless & Ollendick, 2001) provided a preliminary set of practice guidelines based on their review of empirically validated psychosocial interventions, resulting in a proposed three-category system of efficacy: well-established interventions, probably efficacious interventions, and experimental interventions (those not yet established as at least probably efficacious).

Over the past decade the Committee on Science and Practice of the Society for Clinical Psychology of APA Division 12 developed a procedural and coding manual for identification of beneficial interventions (Weisz & Hawley, 1998). The manual provided guidelines for identification, review, and coding of studies of psychological interventions for behavioral, emotional, and adjustment problems and disorders. The manual was designed to (a) identify intervention outcome studies related to the effects of psychological interventions; (b) code studies according to the committee's criteria and provide related information on characteristics of interventions

in the studies that evaluate efficacy; and (c) make a determination on whether the intervention is beneficial. The procedural and coding manual extended the work of the Division 12 Task Force and the efforts of the Division 53 Task Force by clarifying what was meant by “empirically supported interventions” and expanded on a variety of published literature and the work of various committee members.

As various professional groups and researchers began to review the literature, narrative reviews and the application of meta-analysis to child psychotherapy outcome contributed to an evolving positive landscape for effective interventions (e.g., Lonigan, Elbert, & Johnson, 1998; Casey & Berman, 1985; Kazdin, Bass, Ayres, & Rodgers, 1990; Kazdin & Weisz, 2003; Weisz, Weiss, Alicke, & Klotz, 1987). Specifically, between 1952 and 1993, more than 300 research investigations of psychotherapy involving children between the ages of 2 and 18 years indicated that the intervention groups scored higher on various outcome measures than 76% to 81% of children in control groups (Casey & Berman, 1985; Kazdin, 2002). Hoagwood and Erwin (1997) conducted a 10-year research review and found that three types of interventions have empirical support: cognitive-behavior therapy, social skills training, and teacher consultation. Modest support for interventions delivered within school-based consultation occurred through traditional literature reviews (Kratochwill, Sheridan, & Van Someren, 1988; Mannino & Shore, 1975) and meta-analysis (Medway & Updyke, 1985; Sibley, 1986). Summaries of evidence-based treatments with children and adolescents can be found on a Division 53 website (www.effectivechildtherapy.org).

As the cost of treatment of adult and childhood disorders became clear, psychologists became vocal about the importance and effectiveness of prevention programs (e.g., Biglan, Mrazek, Carnine, & Flay, 2003; Coie et al., 1993; Kratochwill, Albers, & Shernoff, 2004; Nation et al., 2003; Tolan & Dodge, 2005; Weissberg, Kumpfer, & Seligman, 2003; Weisz, Sandler, Durlak, & Anton, 2005). Meta-analysis of prevention programs has also demonstrated positive outcomes (e.g., Durlak & Wells, 1997; Weisz, Jensen-Doss, & Hawley, 2006). To assist psychologists in implementing effective prevention programs, a website jointly sponsored by APA and the Society for Prevention Research presents information on over 100 reviews of prevention research on a variety of topics (www.oslc.org/spr/apa/summaries.html).

Tremendous advances have been made in the evidence-based practice area of child prevention and treatment. In recent years, several textbooks that emphasize evidence-based prevention and intervention for child and adolescent problems and disorders have appeared (see Table 1.1). The future looks very positive with regard to improving the quality of life of children and families who experience a wide range of academic and mental health concerns. To advance practice in the field, a number of issues have surfaced that have an important bearing on the future of this movement (see Kratochwill et al., in press). Although it is not possible to review these issues in great detail here, a sampling will convey the complexity of the tasks. To begin with, major concerns surround the research methods of establishing the evidence base in this area, with calls for expanding the methodologies of quantitative research and even the framework for empiricism of the movement (see Slife, Bradford, Wiggins, & Graham, 2005). Concerns have also been expressed about the

Table 1.1 Coverage and Number of Chapters of Specific Topics Addressed in Each Book on Evidence-Based Intervention

Topic	1 ^a	2 ^b	3 ^c	4 ^d	5 ^e	6 ^f
Treatment research methods	E	E	C	E	E	E
Developmental issues	NC	NC	C	E	E	E
Ethical issues	NC	NC	NC	E	NC	E
Assessment	NC	E	E	NC	E	E
Diversity	NC	NC	E	E	E	C
Future directions	E	E	E	E	E	C
Clinical disorders or topics						E
Adherence to medical regimens			1			E
Anxiety disorders	2	1	1	2	4	1
Attention Deficit Hyperactivity	2	1		1	1	1
Eating disorders		1		1		
Conduct Disorder, Oppositional Defiant Disorder						1
Depression	6	1	1	6	2	1
Depression	2	1		4	1	
Developmental disorders (e.g., language)		1				1
Encopresis			1			
Enuresis			1	1		
Habit disorders			1			
Obesity						
Obsessive-Compulsive Disorder				1	1	1
Pain management			1			
Pervasive developmental disorders (Autism)		1		2		1
Medical or physical conditions		1				1
Posttraumatic Stress Disorder					1	1
Prevention					4	1
Psychotic disorders		1				
School refusal						
Sleep problems			1			
Substance abuse		1				
Suicide		1				
Tourette's syndrome		1				
Somatic disorders						1
Child sexual abuse or Child maltreatment						1
Ethical and legal issues						1
Mental retardation and Intellectual disability						1
Psychopharmacology						1

Note: C = Mentioned but minimally; E = Emphasized; NC = Not covered.

^a*Psychotherapy for Children and Adolescents: Evidence-Based Treatments and Case Examples*, by J. R. Weisz, 2004, Cambridge: Cambridge University Press.

^b*What Works for Whom? A Critical Review of Treatments for Children and Adolescents*, by P. Fonagy, M. Target, D. Cottrell, J. Phillips, and Z. Kurtz, 2002, New York: Guilford Press.

^c*Treatments that Work with Children: Empirically Supported Strategies for Managing Childhood Problems*, by E. R. Christophersen and S. L. Mortweet, 2003, Washington, DC: American Psychological Association.

^d*Evidence-Based Psychotherapies for Children and Adolescents*, by A. E. Kazdin, & J. R. Weisz, (Eds.), 2003, New York: Guilford Press.

^e*Handbook of Interventions that Work with Children and Adolescents: Prevention and Treatment*, by P. M. Barrett and T. H. Ollendick (Eds.), 2004, New York: Wiley.

^f*The Practice of Child Therapy*, fourth edition, by R. J. Morris and T. R. Kratochwill, in press-a, Mahwah, NJ: Erlbaum.

limitations of the focus of research, which traditionally has not given attention to the transportability of the prevention and intervention programs (e.g., Schoenwald & Hoagwood, 2001). Limitations of the sample of participants in evidence-based research and the need for cultural adaptations of interventions have also been noted (e.g., Bernal & Scharron-Del-Rio, 2001). In addition, limitations of outcome assessment strategies and, in particular, the arbitrary nature of the instruments used in evidence-based intervention research have been noted (see Blanton & Jaccard, 2006; Kazdin, 2006). Despite these challenges, major commitments to advance the quality of practice with a firm foundation of scientific support are in place (Frick, 2007; Kratochwill et al., in press). As the evidence-based movement progresses it will be important to consider the historical evidence and its importance in teaching us that diversity of viewpoints can best advance science and practice.

SUMMARY

Assessment and intervention for children and adolescents experiencing academic and behavior problems have come far from their ancient roots. In this chapter, we summarized the major trends and events that led to the current state of child and adolescent therapy. We began with a synopsis of progress prior to the nineteenth century, which set the stage for increasingly systematic investigations of human characteristics and behavior. This focus was exemplified by the work of Itard, Wundt, Galton, Cattell, and others. During the first half of the twentieth century, intelligence testing and personality assessment emerged as significant roles for psychologists. Methodological differentiation rapidly became an interest during World War I, and intelligence testing became important for the assessment of schoolchildren. In the second half of the twentieth century, we witnessed the rise of behavioral modification and assessment methods as greatly important in child and adolescent psychology. In particular, these assessment and intervention technologies set the stage for a scientific basis for therapy that would shape the evidence-based practice movement in psychology.

In addition to a discussion of trends and events, we described major conceptual models that have been developed and persist today, including the medical or biological model, the psychodynamic model, the psychometric test-based model, and the behavioral model. Implications for their use in current practices were discussed. We addressed the history of child therapy, from its most famous early roots to modern trends, including the emergence of the scientist-practitioner training model and the evidence-based practice movement. A brief discussion of major concerns surrounding evidence-based practice was provided. The future looks bright for the evidence-based practice movement as the complexities of selection, implementation, and sustainability of treatment technologies are being addressed in research and practice.

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