CLINICAL PSYCHOLOGISTS' OPINIONS ABOUT AND USES OF TESTS, ASSESSMENT, AND CLINICAL INTERVENTION APPLICATIONS

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ABSTRACT

A replication of two North American studies done in 1995, on the contemporary practice of psychological assessment and clinical intervention training, was conducted with New Zealand clinical psychologists currently registered and practising. One hundred and thirty seven subjects, of whom one third were in private practice, were asked their opinions about clinical assessment and their use of instruments. They were also asked about their professional experience with common, mostly empirically-validated, clinical interventions.

It was found that over half of assessment-active clinical psychologists used six procedures, and a third or more used another eight. The clinical interview was top (and used by 87%), and the first five procedures were used most across nine work settings also. The respondents used assessment to answer specific questions, and recommended that clinical students learn about assessment procedures in order to incorporate the results into therapy and thereby facilitate the therapeutic process. Thirty-seven percent of their clients received objective testing procedures and 3% received projective testing. Half or more of the respondents used, and recommended that students learn to administer, the Wechsler Scales, the Beck Depression Inventory, and the State-Trait Anxiety Scale. The most used projective method was Sentence Completion (by 33%) but only 12% recommended that students should learn to use it, and whilst a quarter of clinical psychologists used and recommended that the TAT be learned, another quarter believed that students need not be competent in projective testing methods at all.

Over half the clinical psychologists identified themselves as practising from a cognitive-behavioural orientation and this was reflected in their endorsement of cognitive, behavioural, or cognitive-behavioural empirically-validated clinical interventions. Eighteen

of the most used 20 treatments were so described, the remaining two being the psychodynamic therapies which were ranked at positions 10 and 19, brief and longterm respectively. The most taught , supervised and utilised empirically-validated treatments were therapies for anxiety, depression, and chronic pain, and skills training for marital partners and for parents of children with oppositional behaviour. The single most used intervention, by 74%, was Applied Relaxation for Panic Disorder.

The results of the study suggest that New Zealand clinical psychologists have developed a methodology of assessment originally patterned on North American practices but have evolved pragmatically in a distinctly cognitive-behavioural direction whilst still valuing the importance of traditional assessment instruments such as the MMPI and the Bender-Gestalt. Likewise their clinical intervention preferences tend to be cognitive-behavioural whilst still retaining the psychodynamic and psychoeducational approaches and embracing the "nineties" narrative evolution as well.

The lack of success in obtaining information about the training content of programmes and internship requirements for clinical students should be remedied, in order to inform the profession, and research is also needed into yet-to-be-validated clinical interventions such as narrative therapy.

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TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1.

There is a lack of published research about the practices of clinical psychologists in New Zealand, particularly regarding the use of assessment procedures and treatment interventions. These aspects of practice have undoubtedly developed and matured over time yet very little documentation of that process exists. The purpose of this research is to assess development by looking at current methods utilised in the areas of assessment and treatment intervention applications. This introductory chapter gives some relevant background regarding assessment followed by a similar overview of research concerning treatment practice.

Assessment

Psychological assessment is one framework upon which the practice of psychology was built (Anastasi, 1988). For clinical psychology especially, the process of assessment is a foundational sine qua non, whether it consists of measurement of cognitive processes, human abilities, motivations, emotions or personality. The foundation that assessment provides assists the clinical psychologist to make diagnostic decisions, plan treatment interventions, monitor treatment progress, evaluate intervention effectiveness and conduct clinical research.

Psychological testing and assessment is a specialised field where psychologists' skills and interpretational expertise set them apart from other clinical practitioners such as psychiatrists, general medical practitioners, counsellors and social workers (Maloney & Ward, 1976). Clinical psychologists are the only group trained in the administration and interpretation of

a range of complex and specialised cognitive and personality tests, whereas other professionals are familiar with specific tests or procedures within their specialty area (e.g., mental status examination--psychiatrists; case history formulation--social workers).

Psychological tests have evolved from the initial work of many, including Binet and Simon who in 1905 designed cognitive performance tests for remedial educational purposes (Binet & Simon, 1905). Following this, increased demand from the Armed Services early in the century provided the impetus for further development of psychological testing as a specialised discipline. Notably, assessment-based selection tools were developed to help in recruitment. Two prominent examples include the Army alpha (cognitive tests) and beta (non-verbal puzzles) tests. After World War I, aptitude and special-ability testing were developed to provide selection and screening measures for employment because the mechanisation of work had resulted in increased attrition of dissatisfied workers (Anastasi, 1988; Shouksmith, Personal Communication 1995).

The next major event in the history of psychological testing was the evolution of projective techniques. This was in response to some negative consequences related to what was thought by some to be an overly generalised "classification of people" by intelligence tests. Intelligence tests were being used by some in such a way as to unnecessarily pigeonhole some of those who were administered an IQ test (Maloney & Ward, 1976). Projective techniques (e.g. Rorschach Ink Blots, Rorschach, 1921; Thematic Apperception Test, Murray, 1943) were embraced initially by many clinicians because they were seen as a more adequate measure of the whole personality compared to findings based on IQ tests. By contrast, academic and experimental psychologists generally disparaged projective techniques as too

subjective and "empirically-soft" (Maloney & Ward, 1976). In fact, from early on, polarisation over the issue of projective techniques signalled the development of differing psychological testing traditions. This issue will be discussed in greater detail in Chapter 2.

One focus of this thesis concerns current assessment practice of clinical psychologists in New Zealand. It is important for both applied and educational purposes to know which assessment methods are favoured by currently practising clinical psychologists. Incorporation of the most frequently utilised tests and procedures within academic and professional training programmes would have obvious advantages including, a) matching student training experiences with current "real world" practice, and b) helping keep educators up to date with current clinical assessment practice. In the United States of America, there exists research documenting the development of assessment practices dating from 1935 (Louttit & Browne, 1947; Sundberg, 1961; Thelen, Varble & Johnson, 1968; Lubin, Wallis & Paine, 1971; Garfield & Kurtz, 1973; Brown & McGuire, 1976; Wade & Baker, 1977) up to the present (Watkins, Campbell, Nieberding & Hallmark, 1995). This line of research not only documents part of the history of the profession but also, and perhaps more importantly, enables practising clinicians and educators to monitor developments in the field. As part of an effort aimed at quality assurance, information needs to be gathered and disseminated in New Zealand regarding current assessment practice.

The main hypothesis for this study is that clinical psychologists in New Zealand will use a select core or battery of assessment procedures most frequently and many other tests much less frequently. The second hypothesis is that the most frequently used procedures in New Zealand will be similar to those shown to be used by clinical psychologists in the United States of America, except for the projective procedures which will be used less in New Zealand. These issues will be discussed more comprehensively in the next chapter.

Treatment

Moving to current treatment practice now, it is important for New Zealand psychologists to know which treatment interventions are being applied by practising clinical psychologists for several reasons. First, as with current assessment practice, the profession needs to assess whether what is taught in clinical training programmes is up to date and equivalent to current practice in New Zealand as well as other countries. Of course, this presupposes that what is taught is in fact used in the field, which may or may not be the case and is an additional reason for the current investigation. Third, a lack of home-based research on New Zealand treatment practice is unfortunate, particularly as new theory, knowledge and skills are being contributed to the field by New Zealanders (e.g. the social construction work of Epston, [White & Epston, 1990]). In the same vein, how are aspiring psychologists to know what psychologists do and how they do it? Fourth, clinicians often work in a climate of increasing pressure to provide cost-effective treatments. In a study of clinical training at the University of Pennsylvania Medical School that has applicability to current New Zealand practice, the researchers pointed out the increasing importance of treatments being demonstrably efficacious and cost effective to satisfy those who fund mental health (e.g. New Zealand Regional Health Authorities) (Crits-Christoph, Frank, Chambless, Brody & Karp, 1995). In summary then, both training programmes and clinical settings could benefit from increased awareness of current New Zealand training and clinical practice. Issues concerning current treatment practices and related research will be considered more fully in Chapter 3.

CHAPTER 2.

Research on Current Assessment Practices

Several countries utilise assessment methods and procedures developed in the United States of America and Britain including New Zealand, Australia, Hong Kong and the People's Republic of China. This chapter looks at assessment practices in all of these countries as documented in the research-based literature.

Assessment in New Zealand

Psychology in New Zealand is relatively recently organised as a professional body with the advent of The New Zealand Psychologist (now the New Zealand Journal of Psychology) in 1972, and the Registration Act passed in 1981. The New Zealand Psychological Society was founded in 1947 and the Clinical College of New Zealand Psychologists was formed in 1990. Because of the relative newness of the profession, there has not yet developed a tradition of critical research in some areas of practice, one of them being assessment.

Assessment practices of New Zealand psychologists were first documented in 1974 for the New Zealand Council for Educational Research (NZCER) by Reid and Cowie (Reid & Cowie, 1974). This was a review of test-user qualifications, which was necessary because the NZCER was having difficulty evaluating the qualifications of potential test-users. NZCER officers were responsible for assessing the level of competence reached by potential test-users and were having difficulties because training and workplace requirements had changed since 1968 when the initial classification took place. In 1968 psychological tests were classified

"A", "B" or "C" level and the potential user applied to the NZCER to purchase tests. The NZCER treated each application on it's merits, taking into account the training and experience of each applicant in forming a judgement about the adequacy of the potential user's qualifications. Unfortunately, the "A", "B" and "C" level classifications were not specific and, consequently, were not easily matched to a specific user's qualifications. "A" level tests were achievement tests and were used mostly by teachers who had been trained in their usage during their training years at Teachers' Colleges. "B" and "C" level tests were those used by people who had "done basic training, usually an academic course and (had) subsequent relevant experience" (Reid & Cowie, 1974). This method of classification of tests was thought unsatisfactory in 1974 for the following reasons:

1) There had been an increase in the number and variety of courses offered by universities and other institutions that dealt with test administration and interpretation.

Furthermore, established university courses (particularly those at second year level) had been replaced or modified extensively.

2) Instructional emphases had changed in many courses (e.g., the number of laboratory hours of supervised administration required had been reduced in most courses).

3) Certain groups of test users required a restricted range of tests-- usage of which may have been met by specialised training (e.g., guidance counsellors, speech therapists, vocational guidance officers).

"B" level tests had included individual intelligence tests (e.g. Stanford-Binet, Wechsler Scales). Instruction in these tests had formed a major component of many University assessment courses, particularly at second year level. It was also recognised that certain groups of test users such as guidance counsellors and speech therapists required tests for their

work and needed specialised training in addition to the B level test criteria. The C level category was thought to be too broad as it included all personality tests, many individual intelligence tests, and sensory-motor tests. It was suggested that clinical tests be at an additional level, level D. It was recommended that levels A,B, and C be replaced with levels A,B, C Special, C and D. More importantly it was recommended that test users registered with NZCER so that that body could assess the suitability of the applicant's training and experience, then advise the applicant and enter the applicant into a Register of Test-users. Subsequent advanced qualifications obtained would be entered in the Register as amendments. Also recommended by the authors was that the teachers of courses in the use of tests advise NZCER of their content and that NZCER clearly define requirements for their classification levels. Present day requirements are that one must be on the Test User Qualifications Register. The categories of A, B, C Special, C and D were adopted. The four categories apply to tests and require different types of training and experience in the user:

Level A: Indicates tests which may be adequately administered, scored and interpreted with the aid of a manual and with knowledge and experience of the field in which they are regarded as a useful aid. Completion of an introductory course in test administration and interpretation is considered a highly desirable prerequisite.

e.g., standardised tests of achievement

standardised group tests of scholastic aptitude which report a single score

diagnostic tests of achievement

Level B: Indicates tests available only to those who have successfully completed a basic course in test administration and interpretation. Such a course would normally be a second

or third-year university course, requiring a supervised practical component and instruction in basic statistics essential to test interpretation.

e.g., group tests of intelligence which report sub-scores

multiple-aptitude tests

tests of specific aptitudes

Level C: Indicates tests and measures available to users who have successfuly completed advanced courses in the use of tests and who have had, or are acquiring, casework or clinical experience.

e.g., individual intelligence tests

attitude inventories

personality inventories and scales

sensory motor tests

Such courses would include in-depth 3rd year/postgraduate courses in areas such as clinical psychology, personality theory and assessment.

C Special: Certain tests classified at C level may be available to individuals with basic B level qualifications and training, provided they have had special advanced training in their use, e.g., speech and hearing and language development assessments (speech therapists), counselling inventories (guidance counsellors). Tests of this kind are classified as C Sp. (C Special).

Level D: Indicates clinical and diagnostic meaasures available only to users who have undertaken special postgraduate training in psychology or educational psychology, or

equivalent on-job or inservice advanced training and experience.

e.g., projective tests of personality

However, following this reclassification, no survey or systematic research has been undertaken to assess the adequacy of this scheme.

A survey conducted by the Tests and Standards Committee for the New Zealand Psychological Society followed in 1978, assisted by the NZCER to obtain precise information about training in tests and measurement received by most applicants for membership of the Society. The Committee surveyed University Departments of Psychology, Education and Business Studies, Medical Schools, Government Departments, mental hospitals and psychiatric units and other relevant institutions such as Volunteer Service Abroad and Crippled Children's Society. They found that generally there was a need for inservice training and refresher courses concerning assessment practice in applied settings. For example, they found that formal instruction on the administration and interpretation of tests was provided only within the university departments' test and measurement courses. The universities differed greatly in the amount of time given to introduction and demonstration of tests to students (hours ranged from 9-147). The number of hours of student practice differed also and ranged from 0-214. The competence to administer tests was examined in only three universities although there was observation of administration in nine of twelve departments. Findings here indicated that there may have been less than optimal teaching and learning depending on the amount and frequency of observation during the 0-214 hours of student practice. The ethics of test use and availability were explicitly covered in graduate courses by five out of six psychology departments and five out of six education departments. Findings here indicated that ethical

issues were generally well taught apart from the area of test copyright which was not taught by three out of six psychology departments and three out of six education departments.

Of the institutions surveyed, only the hospitals in university centres offered facilities that met clinical students' needs for training in observation and supervised test use.

Of the ten Government Departments surveyed, one had initiated it's own comprehensive training programme for test use, another ran courses on test administration and use of restricted tests, and a third produced an assessment manual for it's staff. The remaining seven reported not using assessment procedures.

The six national organisations employed or liaised with qualified psychologists and thus reported not being responsible for their in-service training.

The authors found that there were some test training needs that were not being met by the university courses offered in 1978. There were deficiencies noted in the following general areas:

a) statistical competency,

b) range of assessment techniques, and

c) ethical, legal and political issues.

There were also deficiencies noted that related to more specific areas that included:

a) "Hands on" experience of tests,

b) test use experience in varied settings, and

c) critical/interpretative skills in the applied use of tests.

They concluded that there was a need for development of in-service and refresher courses to up-date university lecturers and practitioners in the field. Unfortunately, a follow-up survey was not undertaken. One consequence of no subsequent research is that information on

prevalence and effectiveness of more current nationwide in-service training programmes is not available.

In 1982, McKerracher and Walker investigated the professional activities of New Zealand psychologists employed in the Health, Education and Justice services. The primary goal of this research was to assess time spent in relevant activities in these services. Findings indicated that percentages of self-reported time spent in assessment activities were as follows: Healthcare setting psychologists, 21%; Justice psychologists, 17.3%; and Educational psychologists, 31.8%. According to the respondents in all three groups, this was more time than they wished to spend in this activity. Healthcare and Justice psychologists wanted to spend between 14% and 16% of their time on assessment; Educational psychologists, 22% of their time. However, the amount of time spent in assessment was commensurate with the expectations of their employers for the Healthcare (21% actual time spent; 22.8% expected time) and Justice psychologists (17.3% actual time spent; 16.2% expected time) but was much more than expected for the Educational psychologists (31.8% actual time spent; 24.7% expected time). The Educational psychologists therefore, paradoxically, wished to spend less time than they did in assessment, and actually spent more than their employers expected. The authors hypothesised that perhaps more senior Educational psychologists with longer service would use more assessment compared to their more recently trained colleagues. However, they found that length of employment bore no relationship to amount of assessment undertaken.

Health psychologists wished to spend more time doing treatment (up to 75% of time), research, refresher activities and diplomatic/political activities. Justice psychologists wished to spend more time doing research, refresher activities and teaching. Educational

psychologists wished to spend more time doing treatment, research, refresher activities and teaching. It would seem that these respondents wished to engage in less assessment and more refresher activities and research. In generally conforming to the expectations of their employers, they would have preferred to spend more time developing professionally and scientifically through attending refresher activities and using clinical research skills. More recent research has not been undertaken to assess whether this situation holds today.

In 1984, the New Zealand Association of Hospital Psychologists (now disbanded) surveyed their members, (N=107), to find out which tests they would most recommend for clinical psychology graduates to have had training and experience with during the course of their training (Knight and Godfrey, 1984). Included in the ten tests most frequently recommended by the Hospital Psychologists, and listed below, were five intelligence tests, four measures of cognitive impairment and the Minnesota Multiphasic Personality Inventory (Hathaway & McKinley, 1940). The clinical interview was not mentioned as an assessment procedure; this may have been because it was not a psychometric test. The ten most recommended tests were:

1) Wechsler Adult Intelligence Scale,
2) Wechsler Intelligence Scale for Children,
3) Benton Visual Retention Test,
4) Raven's Progressive Matrices,
5) Wechsler Memory Scale,
6) Minnesota Multiphasic Personality Inventory,
7) Stanford-Binet,
8) Peabody Picture Vocabulary Test
9) Luria-Nebraska Neuropsychological Battery

10) Bender-Gestalt Test

The Wechsler Adult Intelligence Scale (Wechsler, 1955) and the Wechsler Intelligence Scale for Children (Wechsler, 1974) were at the top of those recommended, by 99% and 97% of respondents respectively. There were no projectives recommended, although the tenth mentioned, the Bender Gestalt (Bender, 1938), while primarily a screening measure for organic impairment, has been interpreted using the "projective hypothesis" (Hutt, 1977; Koppitz, 1963, 1975). Unfortunately, the researchers did not make their entire list of 110 tests available for reader inspection. In addition, they appeared to exclude measures used but not commercially available in New Zealand at that time (e.g. the Beck Depression Inventory, Beck, Ward, Mendelson, Mock & Erbaugh, 1961; Halstead Reitan Neuropsychological Battery, Reitan, 1969). Although not in the top ten, specific projective techniques were nevertheless recommended as valuable information sources by substantial percentages of the Hospital psychologists (up to 55%). However, there were also a large percentage of respondents (up to 56%), that recommended against the use of projectives, especially the Rorschach. The following is a list of percentages of respondents recommending for (followed by recommending against) the use of projective tests; Thematic Apperception Test (Morgan & Murray 1935) 52% for (42% against), Rotter Incomplete Sentences Blank (Rotter & Rafferty, 1950) 45% for (28% against), Bene Anthony Family Relations Test (Bene, 1965) 55% for (12% against), Goodenough Harris procedure (Harris, 1963) 44% for (34% against), Rorschach 36% for (56% against), Children's Apperception Test (Bellak, 1949 cited in Cohen, Swerdlik & Phillips (3rd ed.) 1996) 32% for (27% against). As seen in this survey, widely polarised opinions about the merits of projective testing have characterised much of the history of the assessment field here and elsewhere (see also McCully, 1965; Thelen, Varble

& Johnson, 1968; Anastasi, 1968; Bersoff, 1973; Wade, Baker, Morton & Baker, 1978; Korchin & Schuldberg, 1981; Piotrowski & Keller, 1984; Pruitt, Smith, Thelen & Lubin, 1985; and Watkins, 1991). The basic issue is usually whether the practitioner believes that projective techniques have sufficient reliability and validity. Experts have varying opinions as to the validity of projectives,and these opinions are often based on theoretical publications. Anastasi (1988) has this to say..."the most disturbing implication is that the interpretation of (projective) scores is often as projective for the examiner as the test stimuli are for the examinee," and yet Kline (1993) writes "it would be wrong to dismiss (projectives) as worthless tests which, (if) properly used, can still be useful both in research and practical applications." In 1981, Korchin and Schuldberg, writing about the use of projective techniques, commented on contradictory trends in the focus of the Rorschach, one being a broadening of use, as in assessment and prediction of psychotherapeutic outcomes, and the publication and extensive use of Exner's comprehensive scoring system (Exner, 1974), and the other being a narrowing of use as in Singer's (1977) conception of the Rorschach as merely a conversational transaction, not a reliable and valid psychological assessment measure. More recently Irving Weiner added to the validity argument by observing that contemporary data demonstrate it's psychometric soundness and practical utility (Weiner, 1996). In 1997 some practitioners who specialise in the research, assessment and treatment of post-traumatic stress began to use the Rorschach in their client assessment procedures (Personal communication, Van Der Kolk; Briere; N.Z. Psychological Society Conference 1997). Up to the present day, the debate over the relative merits of projective techniques continues unabated (Ronan, 1996).

It might be expected perhaps that New Zealand and Australian psychologists would hold less favourable attitudes toward projective techniques than some of their North American

counterparts because of their training (i.e. many currently practising professionals trained at a time when projective techniques were not as much in favour as in the earlier days of assessment). In addition, anecdotal evidence suggests that the predominant orientation of the practitioners in the two countries may well be cognitive-behavioural. If this is the case, it would follow that assessment practice would use procedures based on cognitive-behavioural principles as opposed to the projective hypothesis. Howerver, research is needed to clarify these impressions. We turn now to assessment in Australia.

Assessment in Australia

Australian literature on testing and assessment practice is almost as sparse as that seen in New Zealand: two commentaries regarding test user qualifications, (Dunn, 1968, and Jenkinson, 1991), an informative book chapter outlining general assessment development and practice in Australia, (Keats & Keats, in Irvine & Berry, 1988), and a survey of Australian Psychological Society members on test usage (Sharpley & Pain, 1988) appear to comprise the literature on test usage and assessment practice.

Beginning with a paper on test user qualifications, Dunn (1968) makes the point that to adhere to the principles of professional conduct set out in the American Psychological Association Code of Ethics (primarily focused on the client's welfare) is of paramount importance (APA Standards, 1966). This was echoed by Jenkinson (1991), who questioned whether restrictions on the use of tests is really a "gilding" practice designed to protect the profession of currently practising psychologists rather than a measure to ensure client welfare through good testing practice. She concluded that skills and competencies in test use provide the only justifiable basis for restricting test use, and emphasised that psychological assessment needed to be better integrated into the training programmes rather than regarded as

postgraduate "afterthought" (e.g. learned on internships), (Jenkinson, 1991).

The actual frequency of test usage and practitioner attitudes was first surveyed in Australia in 1988. Sharpley and Pain (1988) compiled a list of 103 tests taken from the Australian Council for Educational Research Catalogues of Psychologists' Tests 1983/84, and presented them to 4,300 randomly selected Australian Psychological Society members of whom only 9% responded. The questionnaire asked about the subjects: (a) familiarity with tests, (b) frequency of use per month, (c) value to the subject and (d) whether experience with each test should be included in a professional training programme. Intelligence tests predominated in the (a) familiarity, (b) frequency of use and (c) value judgement categories, followed by personality tests. Of note, there was only one projective test listed at number four in the ten most frequently used tests:

1) Wechsler Intelligence Scale for Children-Revised
2) Wechsler Adult Intelligence Scale-Revised
3) Wechsler Memory Scale
4) Goodenough Harris Drawing Test
5) Goldman-Fristoe-Woodcock Test of Auditory Discrimination
6) Cattell 16 Personality Factor
7) MMPI
8) Peabody PVT-R
9) Standard Progressive Matrices (1938)
10) Stanford-Binet (1960)

Questions regarding attitudes related to the value of particular tests being included in training courses showed intelligence tests (Wechsler Intelligence Scales (3), Standard

Progressive Matrices and Stanford-Binet, Terman & Merrill, 1960), taking five positions of the top six (the MMPI was in 5th position). The authors may very well have presented their own bias in emphasising that the ability to evaluate tests according to psychometric criteria is the primary area in which students need training, even more than standardised administration. Of course, as most assessment-active professionals know, standardised administration relates to psychometrically-based evaluation of tests and findings, even in more current projective scoring systems (e.g. Exner Rorschach Scoring System, 1986, 1990). With regard to the findings of this study, it is important to point out that these results are very much qualified by the low survey return rate.

Keats and Keats (in Irvine & Berry, 1988) outlined the history of assessment in Australia, beginning with the creation of the Porteus Maze Test, by Porteus in 1917, to assess cognitive abilities in Australian Aborigines. These authors reviewed the important work of the Australian Council for Educational Research in creating, updating and norming group ability tests (e.g. Early School Series, Non-verbal Queensland Test). Keats and Keats discussed the fact that their multicultural, multilingual society presents a major challenge to test development and use because of the practical problems of measuring and norming in meaningful ways for non-native English speaking minority populations.

It would be expected that the results of the 1988 (Sharpley & Pain, 1988) survey of test usage and practitioner attitudes would be similar to the findings of the current study, especially in the predominance of intelligence tests. However, the 9% return rate that Sharpley and Pain obtained was not satisfactory. We turn next to assessment in the United Kingdom where similar findings to those of New Zealand and Australia would be expected because of the homogeneity of the characteristics of the dominant culture in each nation.

Assessment in Britain

British research into assessment practices of clinical psychologists appears to consist of one comprehensive survey of members of the British Psychological Society begun in 1980 (British Psychological Society, 1986). The British Psychological Society, through it's Standing Committee on Test Standards, initiated a two-stage survey into the use of tests by it's members. The final report, published in 1986, contained views of 567 British psychologists, 250 of them clinical psychologists, who utilised many of the same psychological tests that were in use in North America (see later section) and Australia:

1) the Wechsler Scales,

2) Stanford Binet,

2) Ravens Progressive Matrices,

3) MMPI.

The British Ability Scales (Elliot 1983), which were recently published for use with younger age groups were among the most used instruments also.

Frequently used tests were:

1) Wechsler Memory Scale,

2) Benton Test of Visual Retention-Revised,

3) Neale Analysis of Reading,

4) Bender Gestalt,

5) Minnesota Multiphasic Personality Inventory,

6) Rorschach,

7) Thematic Apperception Test,

8) Cattell's 16 Personality Factor,

9) Bene Anthony Family Relations Test.

The Wechsler Adult Intelligence Scale took the top position across all the subgroups of psychologists. It is clear that the Wechsler Scales and the MMPI have been most popular with New Zealand, Australian and United Kingdom psychologists. The next subsections look at assessment in more diverse cultures.

Assessment in the People's Republic of China and Hong Kong.

Assessment practice in The People's Republic of China and Hong Kong appears moderately similar to that used in the West. However, in general, assessment appears to be carried out by fewer practitioners in those countries.

The WAIS was the most frequently used test in a Chinese study in 1994, although in a revised form for the People's Republic of China (Ryan, Dai & Zheng (1994). Although most of the respondents were physicians, with only 18.5% psychologists, the tests that were popular in the West were among the most frequently adapted and used, namely the Chinese WISC-CR (Wechsler Intelligence Scale for Children-Chinese Revision), C-WYCSI (China-Wechsler Young Children's Scale of Intelligence), and Draw-a-Person in 4th, 5th and 8th places, and the MMPI, Wechsler Memory Scale, and Eysenck Personality Questionnaire in their top ten. The top ten measures by weighted score rank (frequency x value on a four-point scale similar to other cited researchers such as Sharpley & Pain, 1988; Watkins et al., 1995) were as follows:

1) WAIS-RC (WAIS-Revised for China)

2) Eysenck Personality Questionnaire-Adults

3) MMPI

4) WISC-CR (WISC-Chinese Revision)

5) C-WYCSI (China-Wechsler Young Children's Scale of Intelligence)

6) Wechsler Memory Scale (1945 ed.)

7) Eysenck Personality Questionnaire-Children

8) Draw-A-Person

9) Denver Developmental Screening Test

10) Symptom Check List-90

Also in the twenty most used procedures were Cattell's 16PF, the WPPSI, Stanford-Binet (1937 ed.), Hamilton Rating Scale for Depression, Gesell Developmental Schedule and Raven's Progressive Matrices. Projectives appear to be used relatively infrequently in China, owing to the fact that psychoanalytic theory is not accepted by most mental health practitioners in the People's Republic (Ching, 1980, cited in Ryan et al, 1994). This research showed that the Wechsler Scales and the MMPI were once again popular amongst assessment-active professionals, even in an Eastern culture.

In Hong Kong, assessment methods were closely allied to Western practice in the variety of procedures used. In 1993, a survey was done of the 36 clinical psychologists and 14 educational psychologists who were on the register of the Hong Kong Psychological Society (Chan & Lee 1995). In their top ten tests for frequency of use were the WISC, WAIS, Stanford-Binet, Raven's Progressive Matrices, House-Tree-Person, Sentence Completion methods, Draw-a-Person and MMPI, and in their top thirty were the Merrill Palmer SMT (popular in the British study also), and the Bender-Gestalt, Thematic Apperception Test, Vineland, Bene Anthony Family Relations Test, Wechsler Memory Scales, Benton Visual Retention Test and the Beck Depression Inventory. These frequencies of usage of measures were relatively similar to New Zealand, Australian, United Kingdom, and The People's Republic of China frequencies. However, Hong Kong psychologists appeared to favour projectives compared to those in the other countries reviewed thus far.

Assessment in North America

North America has a longer history of assessment practice within clinical psychology and has contributed much of the extant research-based literature in this area. This section will look at research that has explored various aspects of North American assessment practice. This will include looking at frequency of test usage in various clinical settings , critiques of methodology, research on clinicians' test usage opinions and a final section on up-to-date research.

In contrast to the relative dearth of New Zealand, Australian, British and Chinese research on assessment practices of psychologists, North American researchers have carried out national surveys of test and inventory use since 1935. This line of research has looked at a number of relevant issues including the different tests used by various occupational groups of psychologists and the frequency with which they have used tests (Frequency of Use Index).

Assessment across settings

It appears as though the most frequently used instruments have not changed greatly over many years of research, especially since 1946. In 1946 Louttit and Browne investigated the instruments most commonly used in clinics in the United States (Louttit & Browne, 1947). They surveyed 43 institutions, including 22 university clinics listed in a report of the Committee of the Clinical section of the APA published in the 1946 American Psychologist. Prior to this report there had been one done in 1935 by the same Committee with "approximately 49 cases" (Louttit & Browne, 1947). Because a simple count of times each psychometric test was mentioned (Total Mentions or TM) was the only method of analysis used in 1935, and subsequent researchers have weighted the frequencies of use by rated value (FUI index), and published weighted scores (WS), the comparisons are more meaningful from

1946 on. The Total Mentions in ranked order from 1935 are presented below but all other research cited will be in weighted scores.

The most frequently mentioned tests in 1935 were:

1) Stanford-Binet, 1916 Revision*

2) Porteous Maze

3) Arthur Performance

4) Healy P.C.-11

6=) Merrill-Palmer Preschool

6=) Stanford Achievement*

6=) Pintner-Patterson-Performance

8.5) Kuhlmann-Anderson

8.5) Gesell-Developmental

Quite apart from the analyses, the most popular tests used by clinical personnel changed more in the period 1935 -1946 than in any researched period since then. Only two tests (asterisked) survived to make the 1946 list. The remaining eight of the top ten did appear in the top 54 of the 1946 Total Mentions ranked list.

The 1946 top ten is listed in FUI rank below. The Wechsler-Bellvue and Thematic Apperception Test were newly published since 1935 and the Rorschach had become more widely known (Louttit & Browne, 1947). The Goodenough Draw-a-man had been 12th ranked in the 1935 TM; it was ranked at 3.5 in the 1946 TM. The 1946 top ten resembles the subsequent research much more than the 1935 research because it contains five measures that appear on the 1961 research of Sundberg (to be discussed) and the MMPI makes an entrance to stay permanently. Ranked weighted scores for the most frequently used ten assessment

measures in the 1946 research were:

1) Stanford-Binet 1937 Revision*

2) Wechsler-Bellvue

3) Goodenough Draw-a-man

4) Rorschach Psychodiagnostic

5) TAT

6) Gray Oral Reading

7.5) Stanford Achievement*

7.5) Arthur Performance

9) Strong Vocational Interest

10) Otis Self-Administering

In 1961, Sundberg surveyed 10% of the listed agencies and institutions in the USA, including 27 Veterans Administration hospitals and clinics, 66 hospitals and institutions, 53 outpatient clinics, 23 counselling centres, and 16 university training clinics. The sample was balanced between outpatient and inpatient services and included those with a focus on working with a range of populations including children, adolescents, and adults (Sundberg, 1961). The respondents were presented with a list of 62 tests to rate on frequency of usage. The most used tests were as follows:

1) Rorschach

2) Draw-a-Person (Machover)

3) Thematic Apperception Test

4) Bender-Gestalt

5) Stanford-Binet

6) WAIS

7) MMPI

8) Wechsler-Bellvue

9) Draw-a-Man (Goodenough)

10) WISC

In 1971 Lubin, Wallis and Paine looked at patterns of psychological test use in the USA up to 1969 (cited in Brown & McGuire, 1976) and found only two of Sundberg's research list had been superceded; the Goodenough Draw-a-man and the Wechsler-Bellvue had not made the top ranked ten tests, and two more projective methods, Sentence Completion tests and the House-Tree-Person, had made an appearance. The Bender-Gestalt had moved from third place to first and the WAIS from fifth to second, while the Rorschach had dropped from first to third.

By 1974 when the next assessment survey was carried out, no less than seven of Sundberg's top ten had endured from 1961. Brown & McGuire (1976) surveyed agencies listed in the Mental Health Directory, 1973, and received 118 (47%) responses which covered all the States. They found that there had been little change in the popularity of tests between 1971 and 1974, in fact the Goodenough Draw-a-man was slightly more used than the Machover Draw-a-Person and edged the latter out of the top ten, otherwise the lists were the same. Rankings within the 1976 list had changed though as may be seen below:

1) WISC (up from 6th)

2) Bender-Gestalt (down from 1st)

3) WAIS (down from 2nd)

4) MMPI (up from 5th)

5) Rorschach (down from 3rd)

6) TAT (up from 7th)

7) Sentence Completion (same)

8) Draw-a-man (Goodenough) (appearing)

9) House-Tree-Person (down from 8th=)

10) Stanford-Binet (down from 9th)

The Wechsler Preschool and Primary Scale of Intelligence was ranked at 13, adding to the general ousting of the Wechsler-Bellvue and Stanford-Binet by the WISC, WPPSI and WAIS, the newer scales. The projective tests Rorschach and TAT were in 5th and 6th places instead of 1st and 3rd. The Bender-Gestalt stayed in the top four from 1961 to 1976 and was also listed in two further top tens in the Brown and McGuire research; the most popular means of personality assessment across age groups and the ten most popular intelligence tests across age groups. (In New Zealand the Bender-Gestalt appears to be used as a measure of neurological impairment more than as a personality assessment).

In 1977 Wade and Baker surveyed 471 clinical psychologists in the United States America about their use and opinions of psychological tests. They did not present their subjects with a list, but asked them to list tests they would recommend for clinical psychology students to learn. Of the respondents 85% recommended at least one test. The list below shows the ten most recommended, seven of which are (asterisked) on the 1961 (Sundberg, 1961) list of most frequently used tests:

1) Rorschach *

2) Thematic Apperception Test *

3) WAIS *

4) MMPI*

5) Bender-Gestalt *

6) WISC *

7) Picture drawings

8) Sentence completion

9) Stanford-Binet *

10) Halstead Reitan

In 1984, Lubin, Larsen & Matarazzo compared two lists of most frequently used instruments, one from the 1969 research (Lubin, Wallis, & Paine, 1971), and one from their own 1982 research (Lubin, Larsen, & Matarazzo, 1984). There was very little difference in the rankings (rank order correlation of .89) (Lubin, Larsen, & Matarazzo, 1984). When the frequency of usage was separated out and ranked according to five professional settings; Psychiatric Hospitals, Community Health Centres and Clinics, Counselling Centres, Centres for the Developmentally Disabled and Mentally Retarded, and Veterans Administration Medical Centres, it was found that eight of the most popular fifteen tests were common to all the settings (Lubin, Larsen, & Matarazzo, 1984):

1) MMPI,

2) WAIS,

3) Bender Gestalt,

4) Rorschach,

5)Sentence Completion Tests,

6)Draw-a-Person,

7) Rotter Sentence Completion Test and,

8) the House-Tree-Person Test

In 1989, a national survey of Outpatient Mental Health facilities by Piotrowski and Keller found similar results; the same assessment procedures were being used by these professionals:

1) MMPI,

2) WAIS-R,

3) Bender- Gestalt,

4) Rorschach,

5) Sentence Completion Tests,

6) Draw-a-Person, and

7) House- Tree-Person

These were all included in the top ten in their research results (Piotrowski & Keller 1989).

Two years later, in a survey of test usage of adolescent therapists, these same tests were again among the most frequently used tests (Archer, Maruish, Imhof & Piotrowski, 1991). This finding was notable because these more general tests were more frequently used than tests specifically created for this population such as the Millon Adolescent Personality Inventory and the Reynold's Adolescent Depression Scale.

In a survey of 1000 Division 17, (Counselling), APA members, Watkins and colleagues (Watkins, Campbell, & McGregor, 1988), found that four of the most frequently used tests of this discipline were also those found most used by Lubin et al (1985) and Archer et al (1991):

1) MMPI,

2) WAIS-R,

3) Sentence Completion, and

4) Bender Gestalt

The TAT was the preferred projective test in this study (Watkins et al, 1988), whereas the Rorschach had been the choice found by the previous researchers (Lubin et al, 1985; Archer et al, 1991). However, it is important to highlight the fact that all three studies contained both of these projective tests in their top seven measures in terms of frequency of usage (Lubin et al, Archer et al, Watkins et al).Taken together, these findings attest to the popularity of a core group of measures across a range of adult and adolescent populations seen in a variety of clinical settings.

A comprehensive review of survey studies about psychologists' training and assessment practices that had been published in the United States America from 1960-1990 was done by Watkins (1991). The most frequently used and most consistently mentioned tests or assessment methods have continued to be:

1) WAIS-R and WISC-R (intellectual assessment),

2) MMPI (objective personality assessment),

3) Rorschach,

4) TAT,

5)Bender-Gestalt,[1]

6)Sentence Completion methods,

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[1]Footnote: As mentioned earlier, the primary purpose for developing and using the Bender-Gestalt is as a screen for neuropsychological impairment. However it is also used as a projective test (Watkins, 1991).

7) Draw-a-Person, and

8) House-Tree-Person.

Items 3) to 8) inclusive are all projective tests for personality assessment.

The most consistently and most frequently recommended assessment methods for psychology graduate students have also proven to be similar measures according to Watkins (1991) with the addition of the Strong-Campbell Interest Inventory, Sixteen Personality Factor Questionnaire, and the California Psychological Inventory being recommended in surveys of clinical and counselling psychology programme directors.

Footnote: As mentioned earlier, the primary purpose for developing and using the Bender-Gestalt is as a screen for neuropsychological impairment. However, it is also used as a projective test (Watkins, 1991).

Criticism of testing

Although there has been enduring stability in terms of test usage frequency, there have been fluctuations in attitudes toward psychological testing within the scholarly literature. Thelen, Varble and Johnson (1968) surveyed academic clinical psychologists, using a stratified random sampling procedure, at 70 Psychology Departments that had APA approved clinical programs. The aim of this study was to determine academically-based clinical psychologists' attitudes toward projective techniques. They found that their respondents endorsed the following attitudes concerning psychological test usage:

a) that there was a decline in the value given to projective tests amongst clinical faculty (75%),

b) that the future importance of projective techniques would decrease in comparison to 1968 (65%),

c) that research generally did not support the value of projective techniques (62%),

d) that 51% of respondents were in favour of cutting teaching time for projective techniques in university-level assessment courses, and

e) that the percentage of respondents reporting projective assessment as being "very important" for graduate training was lower (at 33%) than for any other academic area, (49% for objective assessment, up to 86% for research and theory). Twenty-five percent of respondents thought that coursework on projective techniques should be optional or not offered at all.

In a partial replication of Thelen et al's 1968 study, Piotrowski and Keller (1984) surveyed 113 APA-approved clinical psychology programs (with a 71% response rate) and found that their subjects, the directors, believed projective techniques to be decreasing in importance in the academic setting (46%), and not supported by psychometrically-based research (51%). However, they also thought that familiarity with projective techniques (e.g. 4% thought Word Association, 85% thought TAT) and coursework with projectives (47%) should be required.

In 1985 Pruitt, Smith, Thelen & Lubin replicated Thelen et al's 1968 study and found similarly strong negative academic attitudes toward projectives. In the summary below, the figures in parentheses are from the 1968 study for comparison with those of Pruitt et al. Respondents thought:

a) that knowledge and skill in the use of projective techniques were not as important as they used to be, 61% (64%),

b) that they saw a decline in the value given to projective techniques amongst clinical faculty, 72% (77%),

c) the future importance of projective techniques in comparison to the present would decrease, 52% (67%),

d) that research generally did not support the value of projective techniques, 63% (64%), and

e) that semester hours for teaching projective techniques should be cut, 44% (51%).

In both the 1968 and the 1985 research, 84% of the respondents thought that teaching the theory and scoring instruction for projective procedures should be taught prior to internship. A contributing factor to the perceived demise of projective use relative to earlier times was clearly illustrated in these two surveys; the increase in importance of non-projective assessment, 67% (56%), and the rating of objective assessment as "very important for graduate training."

In contrast to surveys on academically-based psychologists, other research has assessed the views of clinical setting practitioners and trainers. In 1973, Garfield and Kurtz surveyed the directors of 80 APA approved internship centres to find out attitudes toward training in diagnostic testing. Their results were condemnatory of university training in diagnostic testing, with 54% of the internship directors considering university-level assessment training to be inadequate. Specific comments from the directors included reports of the following problems as reflected in interns' assessment practice and clinical supervision sessions:

a) insufficient student practice involving actual clinical cases (13 out of 80),

b) insufficient student/intern knowledge of test administration (12),

c) inadequate instruction in general assessment (12),

d) inadequate university-based teaching of projective testing interpretation techniques (i.e. lack of familiarity with the "projective hypothesis") (11),

e) university training appeared to disparage diagnostic testing (11),

f) over two thirds of the internship respondents indicated that they felt that university training tended to make students have an overly critical attitude towards diagnostic testing,

g) twenty-nine respondents agreed with the item "Current clinical psychology has unjustifiably downgraded diagnostic testing."

In comparing the attitudes of academically-based versus clinically-based psychologists in the studies reviewed in this section, the academically-based psychologists saw projective techniques as declining in importance and not supported by empirically-based foundations (reliability and validity), whilst by contrast, the internship directors showed that they perceived a conflict in values over diagnostic testing between their programmes and university-based training.

Response to criticism

In the (previously cited) study of Wade and Baker, (1977) (see Assessment across settings section), the authors hypothesised that this type of academically-based criticism (from Thelen et al 1968, Piotrowski & Keller 1984, Pruitt et al 1985, and Garfield & Kurtz 1973), may have had an impact on academic training in testing, manifesting as a decline in testing training in projective techniques especially among younger clinicial faculty members (Thelen et al, 1968) and a shift from projective to objective testing. As previously mentioned,

they undertook a survey of 471 Division 12, APA members (with a 50.1% return rate), to find out opinions about and use of psychological tests and found:

a) that the great majority of respondents used tests (83%),

b) that clinicians of all major theoretical orientations used tests, and

c) that over 1/3 of therapy time was spent in objective and projective test administration and evaluation (15.8% of 35.8%).

d) test results were used in the treatment process by 71.8% of respondents, and specifically in the diagnostic or assessment phase by 47.4%,

e) 70.7% of respondents learned testing in graduate training and 54.7% read several relevant articles (to testing) every six months.

Detailed results showed that more clients were administered objective tests (35%) than projective tests (20.5%) each week, though time spent in administering objective and projective tests was similar at around 7%.

Not only are these facts evidence for the importance of testing to the 1977 psychologists, but when asked to list tests that they would recommend for clinical psychology students to learn, 85.5% recommended at least one test. The tests they recommended included projectives only (15.4%), objectives only (6.5%), or a combination (73.6%). And projectives were recommended with a higher frequency than objectives (481 as compared to 392). (The ten most recommended assessment procedures by these subjects were detailed in the section Assessment across settings, see p. 19).

It appears that despite criticisms of academically-based psychologists, diagnostic testing and projective testing practice were not substantially altered up to this time. In terms of more recent findings,Watkins (1988) found that counselling psychologists recommended the TAT

and Rorschach in the most important five projective tests for students to learn. In his 1991 survey of teaching and practice of psychological assesment, Watkins found that projectives have been most frequently mentioned among the top ten assessment methods over three decades, and wrote that, in line with many clinicians' opinions, they were quite valuable in providing psychodiagnostic information (Watkins 1991). The next section looks more in-depth at research assessing clinician's opinions and attitudes regarding test usage.

Clinicians' opinions about test use

Apart from questions of frequency of usage and the continuing popularity of projective tests, other issues addressed by research in this area have included reasons for use of assessment methods and reasons for advising students to learn them. Wade and Baker (1977), as previously mentioned, surveyed clinical psychologists, about their opinions and use of tests and found that the most important reasons for using tests were, in ranked order:

1) clinical experience with tests,
2) answering assessment needs,
3) graduate training experiences,
4) statistical reliability and validity,
5) requirements of associated agency,
6) availability of tests through agency.

The priority of experiential factors over psychometric considerations was remarked upon by the researchers who concluded that clinicians accorded personal clinical experience greater weight than experimental evidence when making decisions on test usage.

The most important reasons given for advising students to learn tests were, in ranked

order:

1) information about personality structure,

2) satisfies institutional demands,

3) provides a specialty,

4) enables accurate behavioural prediction,

5) contains intrinsic rewards,

6) satisfies legal requirements,

7) saves therapist time,

8) enhances employability or income,

9) increases patient-therapist rapport,

10) increases influence on patients.

There was no item to choose regarding relating assessment results to therapy such as there is in later research (Watkins et al 1995). Values placed on reasons chosen in this 1977 research appear to have a slightly less scientific basis compared to a recent study to be now discussed.

Current research on test use.

Eighteen years after Wade and Baker's seminal study, Watkins and his colleagues (Watkins, Campbell, Nieberding and Hallmark, 1995), at the University of North Texas, updated and extended the Wade & Baker study, and earlier studies reported upon, and again found remarkably few changes in the current assessment practices of clinical psychologists. The basic findings were as follows:

a) a select core of assessment procedures was used most often by most clinical

psychologists across most work settings,

b) psychological assessment as it was practised appeared to be very similar to psychological assessment as it had been practised 30 or more years before, and

c) although negative opinions about projective techniques had received much attention and included predictions about the demise of this form of testing, the findings of Watkins et al indicate these criticisms to be "much ado about nothing." (p.59).

Some specific illustrative results were as follows:

a) between 13% and 90% of psychologists provided assessment services,

b) most assessment time was devoted to personality (12%) and intellectual (8%) assessment (compared to 0.9% of time for vocational/career assessment and 1% of time for ability/aptitude assessment),

c) projective techniques were frequently used (taking five of the "top ten" positions) and most recommended for clinical psychology students to have experience with (three top projectives recommended by 90-96% of respondents versus three top objectives recommended by 79-97% of respondents).

d) the same or similar assessment procedures were used consistently across work settings, the top five receiving rankings of 9.5 out of 38 or better across seven work settings.

e) there was a select core of nine procedures used "moderately often" to "always" by the respondents; in ranked order they were:

1) Clinical interview

2) WAIS-R

3) MMPI-2

4) Sentence Completion methods

5) TAT

6) Rorschach

7) Bender-Gestalt

8) Projective Drawings

9) Beck Depression Inventory

There were some scientifically desirable changes from Wade and Baker's (1977) research in respondents' reasons for using assessment procedures and for advising students to learn about them. In stating reasons for using assessment procedures, "answering specific assessment questions" rose to top position, "previous experience with tests" dropped to second, and "statistical reliability and validity" rose to third. In their reasons for advising students to learn about tests, "that they yield information about personality structure" remained in first place, "that assessment results facilitate the therapeutic process", took second place, and "provides a specialty specific to psychologists" remained in third place. Comparison of the two researchers' results on this particular question may be seen below:

Importance of Reasons for Using Assessment Procedures

Wade & Baker, 1977	Watkins et al., 1995
Clinical experience with tests	Answers specific assessment questions
Answering assessment needs	Previous experience with tests
Graduate training experiences	Statistical reliability and validity
Statistical reliability and validity	Graduate training experiences
Requirements of associated agency	Requirements of agency/institution
Availability of tests through agency	Availability at agency/institution

Reasons for Advising Clinical Psychology Students to Learn About Assessment Procedures

Wade & Baker, 1977	Watkins et al., 1995
Information about personality structure	Information about client personality struct.
Satisfies institutional demands	Assessment results facilitate the therapeutic process
Provides a specialty	Provides therapist with specialty
Enables accurate behavioural prediction	Satisfies juristic or legal requirements
Contains intrinsic rewards	Enhances employability and/or income
Satisfies legal requirements	Satisfies institutional demands regarding diagnostic services
Saves therapist time	Enables therapist to make accurate behavioural predictions
Enhances employability or income	Increases client-therapist rapport
Increases patient-therapist rapport	Enhances therapist prestige as perceived by clients
Increases influence on patients	

Watkins et al's primary modification to Wade and Baker's (1977) methodology was in the addition of an updated list of assessment procedures and the frequency of use of each. This showed that 83% of respondents "always" used the clinical interview, far ahead of the 17% that "always" used the WAIS-R and projective drawings.

When the psychologists in the 1977 and 1995 surveys were asked which tests they would advise clinical psychology students to learn, their top tens were similar in composition. The 1977 subjects recommended four projectives (1995 subjects five), three intelligence tests (1995 two), two cognitive impairment tests (1995 one), and one objective personality test (1995 two). Furthermore, seven out of the ten were identical tests; the MMPI, Rorschach, TAT, WAIS and WISC and Projective Drawings and Sentence Completion methods. Watkins et al (1995) concluded that psychological assessment as it was practised at the time of his research was in many respects very similar to psychological assessment as it was practised 30 or more years ago, and that especially as far as projective techniques are concerned, from the perspective of practice, predictions about the demise of these techniques were " really much ado about nothing" (p. 59).

It is likely that New Zealand clinical psychologists may currently utilise similar measures because early psychological education was based in part on North American teachings and texts and generally development of separate New Zealand psychological tests has not taken place, apart from adapting items to render them relevant to our culture. The current survey will address whether the frequency and pattern of test usage and other attitudes is similar to or different from North American practice. Based on the findings summarised here it was hypothesised that:

1. New Zealand clinical psychologists will use a selected core of assessment procedures most frequently,
2. New Zealand clinical psychologists will make use of many more procedures less frequently than the selected core,
3. Some of the most frequently used selected core of procedures--namely the WAIS-R, WISC, and the MMPI-2, will correspond closely to those shown in the research to

be most frequently used in the United States of America.

4. New Zealand clinical psychologists will use projective techniques less than their North American colleagues because of their relatively recent training at a period when projective techniques were not so popular and because more psychologists are hypothesised to have adopted a cognitive-behavioural orientation. Such an orientation often precludes frequent usage of projective techniques (Ronan, 1996).

CHAPTER 3.

Current Treatment Practice

The process of assessment is related to treatment intervention in a number of ways. For example, assessment can help determine whether treatment is necessary, which behaviours are of concern and in need of remediation, what type of treatment application may be most appropriate, how well it is working, and whether the client has been able to make the desirable changes. The focus now turns to clinical intervention as practised by clinical psychologists in New Zealand and elsewhere.

As far as clinical intervention applications are concerned, there is no published research in New Zealand examining the treatment content of clinical graduate programmes. There needs to be visible evidence that clinical interventions taught to students are those that are eventually used in the field. And unless those practised are shown to be both efficacious and superior to alternatives-- in other words empirically valid-- there is no scientific basis for their retention in applied clinical interventions. The question here is "which empirically-validated treatments are taught in clinical training programs and used in practice settings in New Zealand?" In a North American study, Crits-Christoph and his colleagues surveyed directors of clinical training and directors of internships to find out exactly what American students were being taught (Crits-Christoph, Frank, Chambless, Brody and Karp, 1995). In their introduction, Crits-Christoph et al expressed their view that empirically-based development and validation of treatments are only the first steps in scientifically-based psychotherapy practices, and that these steps must be followed by dissemination of information related to education and implementation.

A task force of the Clinical Psychology Division (Division 12), of the American Psychological Association studied the problem of dissemination of psychological procedures and recommended that students in clinical psychology programs and internships be trained in the usage of treatments that have demonstrated efficacy and effectiveness. Crits-Christoph and his colleagues (1995) undertook a survey on behalf of the task force to answer the question of how well clinical psychology graduates were being prepared for practice. To this end, they first developed a definition of empirically-validated treatments and then determined which treatments met that definition (refer to Appendix B for "well established treatments" and "probably efficacious treatments"). Once that was accomplished they then assembled a survey form for directors of clinical training that asked which treatments were taught and supervised and found that of 25 empirically-validated treatments, 46% were taught didactically and 44% supervised practically over internships. The problem revealed in this study was that 22% of the programs surveyed covered 25% or less of the empirically-validated treatments. In other words, a large number of students were not being introduced to, or learning about, empirically-supported methods of treatment. Of course such a state of affairs increases the likelihood that these same students' post degree clinical practice may not include these interventions. Notably, certain empirically-validated psychodynamic therapies looked to be taught less, and the authors were concerned that students were missing out on learning about these approaches. When internship programs were looked at, it was found that they were unlikely to require that the students be competent in even one empirically-validated treatment by the end of the year. Partly as a result of this research, there is now provision for instruction in empirically-validated treatments in the APA standards (Crits-Christoph et al, 1995). In order to assess and improve standards of care in New Zealand, it needs to be ascertained what happens in graduate training programmes and in practice here. One way to

assess current treatment practices would be to ask not just the trainers but the currently practising clinical psychologists themselves. Consequently, in replicating and extending Crits-Christoph et al, this survey asked directors of training programs, and also currently practising clinical psychologists, questions related to the training and usage of empirically-validated treatments. It was hypothesised that currently practising clinical psychologists here would be more frequently using empirically-validated cognitive and behavioural treatments for reasons discussed in the previous section.

The current study

The current study was cross-sectional in design and conducted between June and August 1996. In following Watkins et al (1995) and Crits-Christoph et al (1995), it consisted of a survey asking clinical psychologists about their current assessment procedures and clinical intervention applications. The focal goal was to ascertain what types of assessment procedures clinical psychologists in New Zealand use, the frequency with which they use these selected procedures, and why those methods are chosen for assessment today.

The second goal was to find out what opinions and attitudes these clinical psychologists have in relation to the training in testing and assessment that students receive. They were asked what importance they would ascribe to reasons underlying learning about psychological testing/assessment procedures for students. They were also asked their opinions on specifically which objective and projective tests and procedures they felt students should attain competency in using. The survey used in Watkins et al (1995) was received by the researcher and guided these assessment-related portions of the current research.

The final goal of the survey sought information on the empirically-validated clinical interventions that these psychologists currently use, which ones they have been taught and/or

supervised in using, and whether they are currently teaching or supervising those particular interventions. The items here were adapted from Crits-Christoph et al (1995). The questionnaire used to survey the clinical psychologists (Clinical Psychologists' Opinions About and Uses of Tests, Assessment, and Intervention Procedures) is described more fully in the Method section and may be found in Appendix A. This survey was also sent to directors of all clinical training programmes in New Zealand.

CHAPTER 4.

Method

Design

The study was cross-sectional in design and conducted between June and August 1996. It was a survey by questionnaire that asked clinical psychologists about their current assessment practices and the clinical interventions used in everyday practice. We wished to ascertain what types of assessment procedures clinical psychologists in New Zealand currently use, the frequency with which they use their selected procedures, and why those methods are chosen for assessment today.

We also wished to find out what clinical psychologists thought about the training in testing and assessment that clinical students receive. We asked them what importance they would ascribe to reasons underlying learning about psychological testing/assessment procedures for students. We also asked their opinions on specifically which objective and projective tests and procedures the students should attain competency in.

The survey sought information on the clinical interventions that the psychologists currently use, which interventions they had been taught and/or supervised in using, and whether they were currently teaching or supervising those particular interventions.

Subjects

Participants were members of the New Zealand College of Clinical Psychologists (N=300), and members of the Clinical Division of the New Zealand Psychological Society (N=100), who were currently practising their profession and able to be contacted by mail. A total of

400 questionnaires were sent to the clinical psychologists on the membership lists of these two organisations.

Usable filled out questionnaires received totalled 137 or 35% of those sent out. A few of the respondents did not use formal tests amongst their assessment procedures but many more added information about their practice methods, instruments used, rationales and opinions. Only two directors replied (out of six). The total usable return rate was adequate at 35%, although a higher return rate would have been desirable. At 137 respondents, the subject number was large enough to render the survey interpretable and comparable to the return rate (41%) found in the Watkins et al (1995) study.

Demographic information was as follows:

Female participants	65% (n=87)
Male participants	35% (n=48)
Age (range 24-73 years)	M=43 (SD=10.4)
MA/MSc	50% (n=67)
Ph.D	23% (n=30)
Dip. Clin.Psy. or Equivalent	28% (n=38)
Caucasian	94% (n=128)
Maori	3% (n=4)
Other	4% (n=5)
Received degree 1986 or earlier	52% (n=68)
Registered Psychologist 1986 or earlier	48% (n=57)

Instrument

The six page questionnaire comprised 17 items that asked respondents about (see Appendix A):

(a) biographical data

(b) professional information such as job affiliation and theoretical orientation

(c) component percentages of activities carried out in their occupation

(d) numbers of tests/assessments procedures administered

(e) proportion of clients receiving procedures

(f) importance of factors in decisions both to use tests/assessment procedures and to advise students to learn about them

(g) which specific tests students should attain competency in

(h) frequency of use of a selected list of assessment measures (adapted from Watkins 1995)

(i) use of any other tests not specifically included on the checklist

(j) use of a list of empirically-validated treatments

The instrument (parts a-i) was an adaptation of the Watkins et al. (1995) survey-based questionnaire used in their research with American Psychological Association members. Prior to this research, portions of the questionnaire had been used in previous assessment surveys (e.g. Wade & Baker 1977). For New Zealand subjects, appropriate categories were inserted where they were obviously needed, such as in qualifications (e.g. "Other" category for Diploma in Clinical Psychology qualification) and ethnic background (e.g. Maori).

In Question 16, some additions and a few other changes were made to Watkins et al (1995) list of tests to include more variety. While some major vocational tests were retained, a few tests in this category were dropped because upon consulting with experienced New Zealand

clinical psychologists, it was thought that few clinical psychologists worked in industrial organisational settings. Additional measures used in the assessment of children's issues were included because preliminary consulting suggested that procedures such as Conner's Questionnaires (Conners, 1989) and the State-Trait Anxiety Scale for Children (Spielberger, 1973) appeared to be used widely in New Zealand. Also included were Structured Diagnostic Interviews, Automatic Thoughts/Cognitive Questionnaires, Derogatis Sexual Functioning Inventory, Personality Tests (e.g., 16PF, NEO), Dyadic Adjustment Scale, Kaufman Assessment Battery for Children, and Child Achievement Tests (e.g., WIAT).

The last section (part j) was a list of largely empirically-validated treatment approaches on which the respondents were asked to indicate whether they currently used, had been taught or were currently teaching any of these approaches. This section of the questionnaire listing the clinical intervention applications was adapted from the research of Crits-Christophs and colleagues (1995) where empirically-validated treatments were presented to clinical teachers in a survey questionnaire (see Appendix B). Added to this original list were therapies that had received some empirical validation for depression (Play Therapy for Children with Depression), anxiety and non self-control in children, obesity (Behaviour Therapy and Cognitive-Behavioural Therapy for Obesity), and anorexia (Narrative Therapy for Anorexia) in adults.

Procedure

The recent Privacy Act in New Zealand meant that membership of the organisations who were surveyed was necessarily kept confidential. As a result, this hindered any possibility of follow-up or reminder postings to the participants who did not return surveys. It was necessary to obtain pre-prepared labels of the members' names and addresses and apply them

and post the packets promptly, presumably to guard against the possibility of the researcher retaining the names of the members and disseminating the information.

A survey packet containing the questionnaire fronted by an information sheet and a reply-paid addressed envelope was mailed to the potential participants (see Appendix A). Four hundred packets were mailed out. Separate packets were sent to the directors of the six graduate clinical training programs because it was thought that their information would be important to the research on treatments taught. On receipt of the returned questionnaires, each was coded by number. Total questionnaires returned numbered 147 (36%). Of these, six had not reached their original destination, three had been returned by clinical student members who were in training and did not feel that they were qualified to fill out a questionnaire because of lack of experience, and one was returned redundant because of double membership. Usable questionnaires numbered 137 (35%).

Approval was obtained from the Massey University Human Ethics Committee for this project.

CHAPTER 5.

Results

The results are focused on the New Zealand research but where data is available appropriate comparisons have been made with relevant overseas research. Also, given that only two directors of training responded, aspects of training programmes were not analysed.

The respondents' mean age was 43 (SD=10.4) years, range 24-73 years. Most were women (n=87 65%), Caucasian (n=128 94%), and held a masters degree (n=67 50%). Twenty-three percent (n=30) held a Ph.D and 28% (n=38) either held a clinical diploma or were working towards one. There were four Maori out of 137 respondents (3%) and a further five (4%) of other than Caucasian background. Over half (n=68 52%) had received their degrees in 1986 or earlier and about half (n=57 48%) had registered as psychologists in 1986 or before.

The primary job affiliations among the sample were as follows:

Private practice	29% (n=39)
Community Mental Health	10% (n=14)
Outpatient Clinic	10% (n=13)
University Psychology Dept.	10% (n=14)
Dept. Justice/Corrections	10% (n=13)
Psychiatric Hospital	7% (n=9)
General Hospital	5% (n=7)
Medical School	4% (n=5)
Student Counselling	4% (n=5)
University Dept. Other	3% (n=4)

Child, Adolescent & Family	2% (n=3)
Non-Govt. Agency	2% (n=3)
Other	6% (n=8)

The primary theoretical orientations endorsed were as follows:

Cognitive-Behavioural	52% (n=70)
Eclectic	30% (n=40)
Psychodynamic	5% (n=7)
Behavioural	4% (n=5)
Other (see below)	9% (n=13)

[Family/Systems, Feminist, Psychodrama, Narrative, Neuropsychological, Gestalt, Existential, Psychoanalytic, Psychoanalytic (Object Relations) Psychoanalytic (Jungian)]

Participants were first asked whether and to what extent they engaged in various professional activities. These results are presented in Table 1. Of non-assessment activities, 85% of respondents practiced psychotherapy for under half of their time (44%). Administration took 14% of activity time for 73% of respondents. Supervision engaged 8% of time for 71% respondents and consultation 7% of time for 55%. Research took 6% of activity time for 38% of respondents. Assessment activities took up between 0.5% and 4% of professional time compared to the USA sample (Watkins et al.,1995) who spent between 1% and 12% of their activity time in assessment.

Table 1 Percentage of Time Clinical Psychologists Devote to Various Professional Activities

Activity	n	% of psychologists involved in activity	Mean % of time
Psychotherapy	117	85	44.48
Intellectual Assmt	56	41	3.81
Vocational/Career Asmt	8	6	0.51
Personality Assessment	42	31	1.87
Ability/Aptitude Assmt	22	15	1.03
Research	45	38	6.29
Administration	100	73	14.05
Teaching	63	46	6.51
Consultation	76	55	7.21
Supervision	97	71	7.57
Other	36	26	6.67

Note. Total N = 137

We next asked respondents how important (1 = no importance, 5 = great importance) six variables were in affecting their decisions to use assessment procedures. The results may be seen in Table 2. The most important factor of the six was" that the procedures answer specific assessment questions". Also important were "previous clinical experience with tests" and "statistical reliability and validity". The three means for these variables were clustered together at the top of a range from 4.18 to 2.34. When compared to the United States survey, the three most important reasons given for using assessment procedures were in identical order and had similar means and SD's. There was no significant difference between the rank ordering of the six factors for the two countries as indicated by the Wilcoxon rank sum test (Ws=38, $p>.05$ two-tailed). The last two reasons were in reverse order in the United States survey.

Table 2

Reasons For Using Assessment Procedures

Reasons	Importance Rating M	SD
Answers specific assessmt questions	4.18	1.00
Previous experience with tests	3.77	.90
Statistical reliability and validity	3.70	1.10
Graduate training experiences	3.27	1.23
Availability through agency/instit.	2.54	1.28
Requirements of agency/institution	2.34	1.32

Note. Ratings were made on a 1 (no importance) to 5 (great importance) scale.

N's ranged from 122 to 126.

We then asked respondents what importance (1 = no importance, 5 = great importance) they would assign to nine reasons for advising clinical students to learn about psychological assessment. The results are provided in Table 3. The most important factor by far was that "assessment results, when incorporated into therapy, facilitate the therapeutic process" (M=3.50, SD 0.95). The next four factors were within a range of .20, from M=3.17 to 2.89, with SDs from 0.85 to 1.16. The most important reason in the USA study was that "assessment yields information about personality structure" (NZ 4th) (M=4.05, SD 0.74), and

it stood markedly ahead of the second most important reason (NZ 1st) (M=3.71, SD 0.86). There was a significant difference between the rank order of the nine factors when the two countries were compared via the Wilcoxon rank sum test (Ws=63, $p<.05$ two-tailed).

Table 3

Reasons For Advising Clinical Psychology Students To Learn About Assessment Procedures.

Reasons	Importance Rating M	SD
Assessment results, when incorporated into therapy, facilitate the therapeutic process	3.50	0.95
Assessment provides the therapist with a specialty specific to psychologists	3.17	1.16
Assessment results enable therapists to make accurate behavioural predictions	3.05	0.85
Assessment yields information about the client's personality structure	2.92	0.91
Assessment satisfies institutional demands regarding diagnostic services	2.89	0.99
Assessment satisfies juristic or legal requirements	2.76	0.94
Assessment increases client-therapist rapport	2.49	2.50
Assessment enhances therapist employability and/or income	2.39	1.01
Assessment enhances the therapist's prestige as perceived by clients	1.92	1.92

Note. Ratings were made on a 1 (no importance) to 5 (great importance) scale.
N's ranged from 129 to 131.

To find out the nature of their testing activities, respondents were asked how many tests/assessment procedures they administered each week and what percentage of their clients received tests/assessment procedures. The results may be seen in Table 4. Between 2.77% and 36.89% of clients were administered tests. Although 36.89% of clients received objective testing, the psychologists' responses were tri-modal at 5, 10, and 100% (i.e. 16 psychologists administered tests to 5% of their clients, 17 psychologists administered tests to 10% of their clients, and 16 psychologists administered tests to 100% of their clients), causing a large standard deviation and showing that some psychologists used tests a great deal and others relatively infrequently. Although 2.77% of clients were administered projective techniques, the number of respondents for this question was only 27 (whereas there were 117 respondents to the objective testing question). Likewise when asked about the number of tests per week, 15 psychologists were responsible for administering a mean of 0.21 projective tests per week but 117 psychologists administered a mean of 8.34 objective tests per week. (Some respondents administered less than one projective test per week or said that they did not administer them but their clients received them).

Compared to US research (Wade & Baker, 1977) NZ respondents administer similar numbers of objective tests per week to their clients [t (347)=.089, p>.05] and likewise similar numbers of projective tests per week to their clients [t (347)=0.21, p>.05]. However when comparing the percentages of clients that receive tests, US respondents administer significantly fewer objective tests [t (347)=2.00, p<.05] and significantly more projective tests [t (347)=5.36, p<.001].

Table 4

Testing Activities

	Objective Tg(n=117)		ProjectiveTg(n=15)	
Measure	M	SD	M	SD
Number of procedures/week	8.34	10.48	0.21	0.91
% of clients receiving/week	36.89	39.55	2.77	1244

N's ranged from 15 to 117.

Total N=137

We asked respondents to identify the primary projective and objective tests in which they believed clinical students should be competent. These results are provided in Tables 5a and 5b. A considerable proportion (24%), of respondents believed that no projectives should be taught to competency level; 40% did not express an opinion on the teaching of projectives. In reply to the question on objective assessment most of the respondents, (84%), said that the Wechsler Scales should be taught and almost half (49%) said that the Beck Depression Inventory should be taught. In the USA survey 90% of the respondents believed that clinical students should be competent in the projective drawings, TAT, and Rorschach, and in reply to the objective assessment question, 97% said the MMPI, and 88% the WAIS, should be learned.

Table 5a

Projective Assessment Procedures in which Clinical Psychologists Believe Clinical Students Should Be Competent

Assessment procedure	n	%
Thematic Apperception Test	35	26
Rorschach	20	15
Children's Apperception Test	17	12
Sentence Completion methods	16	12
Draw-a-Person	15	11
Projective Drawings	13	10
Bene Anthony Family Relations Test	11	8
Draw-a-Family	8	6

Note. Total N = 137

Table 5b

Objective Assessment Procedures in which Clinical Psychologists Believe Clinical Students Should Be Competent

Assessment procedure	n	%
Wechsler Scales	115	84
Beck Depression Inventory	67	49
Neuropsychological Tests (unspecified)	55	40
MMPI-2	53	37
Wechsler Memory Scale	37	27
Millon Clinical Multiaxial Inventory	37	27
State Trait Anxiety Inventory	28	20
Stanford-Binet	19	14
Wisconsin Card Sort Test	10	7
SCL-90	7	5
Rey Auditory Verbal Learning Test	6	4
Benton Visual Retention Test	6	4
Child Behaviour Checklist	5	4
Raven's Progressive Matrices	4	3
Structured Diagnostic Interview	4	3
Zung Self-Report Depression Scale	3	2

Total N = 137

Respondents were next asked to indicate how frequently (1 = never, 5 = always) they used 38 assessment procedures when providing assessment services. Table 6 provides these results. The top six used by 51% or more respondents are asterisked on the following list of most frequently used assessment procedures (see also Table 6):

1) Clinical interview* (87%)
2) Beck Depression Inventory* (83%)
3) WAIS-R* (83%)
4) Wechsler Memory Scale-Revised* (69%)
5) State-Trait Anxiety Inventory* (61%)
6) WISC* (51%)
7) Structured Diagnostic Interviews (47%)
8) Automatic Thoughts/Cognitive Questionnaires (39%)
9) Child Behaviour Checklist (39%)
10) Peabody Picture Vocabulary Test-R (38%)

Of the 38 procedures, 24 were used by 25% or more respondents and the remaining 12 were used by between 8 and 23%. There were six projective procedures on the list beginning with Sentence Completion methods at position 13 (33%), then Projective Drawings at position 15 (32%), Bender-Gestalt at 16 (32%), Thematic Apperception Test at 24 (25%), Children's Apperception Test at 26 (20%), and the Rorschach at position 31 (12%). On the USA FUI index there were five projective procedures at ranked positions 4 (Sentence Completion methods), 5 (TAT), 6 (Rorschach), 7 (Bender-Gestalt), and 8 (Projective Drawings).

See Table 6 overleaf...

Table 6
Frequency of Usage of Assessment Procedures by Clinical Psychologists

Instrument	Never		Occasionally		Moderately		Frequently		Always		Total Mentions	
	n	%	n	%	n	%	n	%	n	%	n	%
Clinical Interview	8	6	7	5	-	-	14	10	98	72	119	87
Beck Depression Inventory	9	6	38	28	24	18	44	32	8	6	114	83
Wechsler Adult Intelligence Scale-R	15	11	45	33	30	21	34	25	5	4	114	83
Wechsler Memory Scale-Revised	31	23	55	40	22	16	18	13	-	-	95	69
State-Trait Anxiety Inventory	43	31	39	29	27	19	13	10	4	3	83	61
Wechsler Intelligence Scale for Children	56	41	37	27	15	11	17	13	1	1	70	51
Structured Diagnostic Interviews	61	44	29	22	14	10	14	10	7	5	64	47
Automatic Thoughts/Cognitive Qu's	70	50	26	19	21	16	7	5	-	-	54	39
Child Behaviour Checklist	72	52	25	19	12	9	15	11	1	1	53	39
Peabody Picture Vocabulary Test-R	75	54	40	30	9	7	3	2	-	-	52	38
Minnesota Multiphasic Personality Inv.	81	59	32	24	11	8	3	2	-	-	46	34
Childrens Depression Inventory	79	57	30	22	12	9	3	2	-	-	45	33
Sentence Completion Tests	80	59	37	27	4	3	3	2	1	1	45	33
Vineland Social Maturity Scale	78	56	39	29	5	4	1	1	-	-	45	33
Projective Drawings	78	57	25	18	12	9	7	5	-	-	44	32
Bender Gestalt	81	59	39	29	4	3	1	1	-	-	44	32
Standard Binet Intelligence Scales	81	59	27	19	11	8	5	4	1	1	44	32
Millon Clinical Multiaxial Inventory	81	59	20	15	14	10	8	6	2	2	44	32
Symptom Checklist-90R	85	62	22	16	7	5	8	6	3	2	40	29
Wechsler Preschool and Primary Scale	85	62	34	25	3	2	2	2	-	-	39	28
Connor's Questionnaires	84	61	22	16	7	5	8	6	2	2	39	28
State-Trait Anxiety Inv. for Children	87	63	25	19	10	7	2	2	-	-	37	27
Derogatis Sexual Functioning Inventory	89	64	34	25	3	2	-	-	-	-	37	27
Thematic Apperception Test	91	67	30	22	3	2	1	1	-	-	34	25
Luria Nebraska Neuropsychological Batt.	93	67	29	22	1	1	1	1	-	-	31	23
Children's Apperception Test	96	70	24	18	3	2	1	1	-	-	28	20
Personality Tests (e.g., 16PF, NEO,)	98	71	18	13	6	4	1	1	-	-	25	18
Halstead-Reitan Neuropsychological Batt.	101	73	20	15	2	2	1	1	1	1	24	18
Dyadic Adjustment Scale	103	75	17	13	3	2	2	2	-	-	22	16
California Psychological Inventory	106	77	13	10	4	3	1	1	-	-	18	13
Rorschach	109	79	14	10	1	1	1	1	-	-	16	12
MMPI-Adolescent	110	80	12	9	4	3	-	-	-	-	16	12
Myers-Briggs Type Indicator	113	82	8	6	3	2	1	1	-	-	12	9
Wide Range Achievement Test-Revised	110	81	7	5	3	2	1	1	-	-	11	8
Strong Interest Inventory	113	82	8	6	1	1	1	1	-	-	10	7
Edwards Personal Preference Schedule	115	84	9	7	-	-	1	1	-	-	10	7
Child Achievement Tests	112	82	8	6	1	1	-	-	-	-	9	7
State-Trait Anger Scale	-	-	2	2	2	2	4	3	1	1	9	8

Using the frequency of usage data from Table 6, assessment use was broken down by work setting. These results - frequency of usage rankings for the 38 assessment procedures - can be found in Table 7 below. It can be seen that the first five procedures constitute the core of the assessment procedures used by New Zealand clinical psychologists; all were ranked at 10 or above.

Table 7

Rankings of Assessment Procedures Most Frequently Used by Clinical Psychologists Across Ten Work Settings

Instrument	Private Pract	Psych Hosp	Gen Hosp	CMHC	OPC	Uni Psy	Uni Other	Med Sch	Stud Couns	Other
Clinical Interview	1	1	1	1	1	1	1	1	1	1
Beck Depression Inventory	2	3	3	4	2	2	4	5.5	2	2
Wechsler Adult Intelligence Scale-R	3	2	2	2	3	4.5	4	2.5	6.5	3
Wechsler Memory Scale-Revised	5.5	4	4.5	3	7	10	4	5.5	4	5
State-Trait Anxiety Inventory	7.5	5	6.5	5.5	9	3	7.5	8	6.5	4
Wechsler Intelligence Scale for Children	5.5	10	4.5	8	4	8	4	18.5	21.5	11.5
Structured Diagnostic Interviews	4	6	17	10.5	12.5	9	22	2.5	3	8
Automatic Thoughts/Cognitive Qu's	16	10	24.5	5.5	15	7	22	10.5	12.5	9
Child Behaviour Checklist	11	8	9	9	11	4.5	4	18.5	-	11.5
Peabody Picture Vocabulary Test-R	12	21	9	10.5	15	11	13.5	18.5	12.5	16.5
Minnesota Multiphasic Personality Inv.	9	10	13	14	25	18.5	22	-	6.5	22
Childrens Depression Inventory	16	17.5	9	15.5	10	20	15.5	-	-	11.5
Sentence Completion Tests	10	24.5	29	12.5	17.5	21.5	7.5	-	21.5	22
Vineland Social Maturity Scale	21	13.5	17	17.5	21.5	15	-	18.5	12.5	14
Projective Drawings	7.5	28.5	29	20.5	8	24	9	-	12.5	15
Bender Gestalt	14	17.5	21.5	20.5	19	21.5	22	18.5	6.5	18.5
Standard Binet Intelligence Scales	16	13.5	15	20.5	5	13	-	18.5	-	22
Millon Clinical Multiaxial Inventory	32.5	7	17	7	21.5	18.5	11	9	21.5	6
Symptom Checklist-90R	18.5	12	6.5	23.5	26	6	11	5.5	12.5	24
Wechsler Preschool and Primary Scale	18.5	21	13	28.5	21.5	16.5	22	18.5	-	18.5
Connor's Questionnaires	24.5	17.5	13	12.5	6	13	22	-	-	16.5
State-Trait Anxiety Inv. for Children	24.5	15	11	28.5	12.5	13	22	18.5	-	26
Derogatis Sexual Functioning Inventory	27	21	21.5	20.5	28	25.5	22	18.5	-	7
Thematic Apperception Test	13	-	29	28.5	15	30	22	-	12.5	26
Luria Nebraska Neuropsychological Batt.	32.5	24.5	29	15.5	21.5	30	13.5	10.5	12.5	26
Children's Apperception Test	22	-	21.5	28.5	17.5	30	-	-	21.5	28.5
Personality Tests (e.g., 16PF, NEO,)	27	24.5	29	17.5	25	16.5	-	-	21.5	34
Halstead-Reitan Neuropsychological Batt.	32.5	24.5	21.5	23.5	28	33.5	11	5.5	21.5	31
Dyadic Adjustment Scale	29.5	28.5	29	-	30.5	23	15.5	-	-	20
California Psychological Inventory	27	-	24.5	-	-	30	-	18.5	21.5	28.5
Rorschach	23	-	-	28.5	25	33.5	-	-	12.5	-
MMPI-Adolescent	35	28.5	19	-	28	30	-	18.5	21.5	30
Myers-Briggs Type Indicator	20	-	-	28.5	-	-	-	-	21.5	32.5
Wide Range Achievement Test-Revised	36	28.5	29	-	-	25.5	22	18.5	21.5	-
Strong Interest Inventory	29.5	-	-	28.5	-	36	-	-	-	32.5
Edwards Personal Preference Schedule	32.5	-	-	28.5	-	35	-	18.5	-	-
Child Achievement Tests	37	-	-	-	30.5	27	22	18.5	-	-
State-Trait Anger Scale	-	17.5	-	-	-	-	-	-	-	11.5

Respondents were presented with a list of specific clinical interventions and asked for three responses: (a) whether they currently used the treatment, (b) whether they had been taught or supervised in it and (c) whether they were currently teaching or supervising someone in it. Table 8 shows the results ranked in frequency of current usage. It can be seen that 18 of the top 20 are cognitive, behavioural, or cognitive-behavioural treatments. The brief and longer term psychodynamic therapies were ranked at positions 10 and 18 respectively.

See Table 8 overleaf....

Table 8

Percentages of respondents who currently use, have been taught or who are currently teaching or supervising specific clinical interventions.

	Currently Use		Been Taught		Currently Supervising	
	n	%	n	%	n	%
Applied relaxation for panic disorder	100	74.07	106	78.52	47	34.81
Beck's Cognitive Therapy for depression	99	73.33	94	69.63	50	37.04
Cognitive behaviour therapy for generalised anxiety disorder	88	65.19	94	69.63	45	33.33
Cognitive behaviour therapy for panic disorder with and without agoraphobia	87	64.44	90	66.67	38	28.15
Exposure treatment for phobias	86	63.70	100	74.07	40	29.63
Systematic desensitisation for simple phobia	77	57.04	93	68.89	34	25.19
Exposure and response prevention for obsessive-compulsive disorder	67	49.63	95	70.37	38	28.15
Cognitive behaviour therapy for chronic pain	61	45.19	77	57.04	26	19.26
Behavioural marital therapy	54	40.00	69	51.11	17	12.59
Brief Dynamic Therapies	47	34.81	43	31.85	19	14.07
Behaviour modification for sex offenders	44	32.59	68	50.37	19	14.07
Parent training programs for children with oppositional behaviour	44	32.59	65	48.15	22	16.30
Cognitive Behavioural Therapy for Anxiety in Children	43	31.85	59	43.70	21	15.56
Behaviour modification for developmentally disabled	42	31.11	70	51.85	16	11.85
Behaviour therapy for female orgasmic dysfunction and male erectile dysfunction	40	29.63	73	54.07	14	10.37
Habit reversal and control techniques	39	28.89	53	39.26	13	9.63
Behaviour modification for enuresis and encopresis	38	28.15	80	59.26	15	11.11
Longer term (time unlimited) dynamic or psychoanalytic therapy	38	28.15	36	26.67	14	10.37
Behaviour and cognitive behaviour therapy for obesity	36	26.67	64	47.41	15	11.11
Cognitive-Behavioural Therapy for Non-Self-Control in Children	36	26.67	48	35.56	19	14.07
Client-centred therapy for generalised anxiety disorder	36	26.67	41	30.37	11	8.15
Other short-term dynamic therapy	36	26.67	34	25.19	16	11.85
Strategic family therapy	35	25.93	62	45.93	11	8.15
Behaviour therapy for headache & irritable bowel syndrome	32	23.70	53	39.26	12	8.89
Structural family therapy	32	23.70	52	38.52	13	9.63
Interpersonal therapy for bulimia	29	21.48	30	22.22	10	7.41
Token economy programs	28	20.74	70	51.85	11	8.15
Emotionally focused couples therapy	24	17.78	22	16.30	9	6.67
Lewinsohn's psychoeducational treatment for depression	23	17.04	38	28.15	10	7.41
Family education programs for schizophrenia	22	16.30	37	27.41	7	5.19
Dialectical behaviour therapy for borderline personality disorder	18	13.33	7	5.19	6	4.44
Play Therapy for children with depression	17	12.59	26	19.26	5	3.70
Biofeedback skills	16	11.85	45	33.33	4	2.96
Group cognitive behaviour therapy for social phobia	15	11.11	37	27.41	8	5.93
Narrative Therapy for anorexia	15	11.11	12	8.89	5	3.70
Social learning therapy for schizophrenia	14	10.37	27	20.00	6	4.44
Exposure treatment for alcohol abuse and smoking cessation	13	9.63	33	24.44	7	5.19
Klerman and Weissman's Interpersonal Therapy for depression	6	4.44	11	8.15	2	1.48

From Table 8 a core of clinical intervention applications arose that were most taught and supervised in the APA-approved doctoral programmes (Crits-Christoph et al, 1995) and also amongst the most practised by New Zealand clinical psychologists. These were cognitive and behavioural treatments for anxiety disorders and depression, skills for marital partners and skills for parenting children with oppositional behaviour. These ten most taught, supervised and utilised empirically-validated treatments may be seen in Table 9 ranked in descending order of relative standing in APA-approved doctoral programme teaching. The parenthesised figures next to the other columns are the rank orders of those percentages. Owing to different sample sources, statistically-derived rank order comparisons were deemed inappropriate here (i.e. not directly comparable).

Table 9

Ten most taught and supervised empirically-validated clinical interventions in U.S. research and comparable ranking in current research

	% of APA Doctoral Programmes Teaching and Supervising E.V. Treatments		% of NZ Clinical Psychologists who Use, Have Been Taught and Supervise E.V. Treatments		
Treatments	USA Doctoral Programmes		NZ Clinical Psychologists		
	Taught	Supervised	Currently Use	Been Taught	Currently Supervising
Beck's Cog. Therapy for Depression	1) 90	80 (1)	73 (2)	70 (4=)	37 (1)
Cog-Behav.Therapy for GAD	2) 70	77 (2)	65 (3)	70 (4=)	33 (3)
Systematic Desens.-Simple Phobia	3) 69	62 (5)	57 (6)	69 (6)	25 (7)
Applied Relax. for Panic Disorder	4) 66	73 (3)	74 (1)	79 (1)	35 (2)
Cog-Beh.-Panic w/w.out Agoraphob	5=)64	70 (4)	64 (4=)	67 (7)	28 (5)
Exposure Treat.for Phobias	5=)64	59 (8)	64 (4=)	74 (2)	30 (4)
Exp. & Response Prev. for OCD	7) 59	48 (9)	50 (7)	70 (4=)	28 (5)
Parent Trng. for Chn. w. Opp Beh	8) 58	60 (7)	33 (12)	48 (10)	16 (9)
Behav. Marital Therapy	9) 57	61 (6)	40 (9)	51 (9)	13 (10)
Cog-Beh. Th. for Chronic Pain	10)47	47 (10)	47 (8)	57 (8)	19 (8)

CHAPTER 6.

Discussion

This chapter is divided into the following sections: Summary of Major Findings, Summary of Hypotheses, Treatment, Assessment, Conclusions, Caveats/Limitations and Implications/Future directions.

Summary of Major Findings.

The study was designed to find out information about New Zealand clinical psychologists' current assessment practice and clinical intervention applications and, to this end, some useful information was obtained. The study was a replication and extension of recent overseas research and so the description of findings includes relevant comparisons. It was an extension in that the survey instrument was adapted from two separate studies (Crits-Christoph et al, 1995; Watkins et al, 1995) and modified for New Zealand conditions--for example, in the demographic variables sought and in the inclusion of additional tests and interventions thought to be used here. The results were focused on the current research but where data was available appropriate comparisons have been made with relevant overseas research.

It was found that responding New Zealand clinical psychologists were academically qualified to masters level or above, tended to be female, and that the ratio of those working in the state sector to private practice was approximately 2:1. The participants in the current study who worked in the public sector were positioned both academically (University 10%, Medical School 4%), and in institutions (Community Mental Health

facilities 10%, Outpatient Clinics 10%, Department of Justice/Corrections 10%, Psychiatric Hospital 7%, General Hospital 5%). Most reported a cognitive-behavioural/behavioural (56%) or eclectic (30%) orientation. Only 5% reported a psychodynamic orientation. In similar research carried out in the United States (Watkins et al, 1995), most of the respondents were male, held doctorates, worked privately, and reported their theoretical orientation to be principally eclectic (36%), with one fifth (21%) reporting a psychodynamic orientation and another fifth (20%) reporting a cognitive orientation. The comparison may not be entirely valid because the North American subjects may not have been proportionately representative of the American Psychological Association membership as regards occupational affiliation (Watkins et al, 1995). The same may be said of the participants in the current study. Also, although New Zealand clinical psychologists do not generally hold PhD's or PsyDs, that does not mean that the scope of their clinical training is not equivalent (Brassington, 1996).

The respondents in the current study used assessment less than their North American counterparts (i.e. 0.5%-4% of professional activity time compared to 1%-12% for the North American subjects, see Table 1 in Results section).

Table 6 showed that the respondents in this survey used six assessment procedures frequently. Notably, these six procedures-- the only ones endorsed by more than half of the respondents-- do not include projective methods. By contrast, a sample of clinical psychologists from the United States reported three of their top six (and five of their top ten) as projective procedures; that is, core assessment measures used in each country appear to differ markedly on this dimension. On the other hand, the most frequently used procedure in both countries appears to be the clinical interview. In addition, Wechsler intelligence tests (WAIS, WISC) and the Beck Depression Inventory were in the top ten in

terms of frequency of use in both this and the U.S. sample (Watkins et al., 1995). Other similarities between the two samples included similar patterns of endorsement of the reasons for using assessment procedures: first, that they answer specific assessment questions; second, because of previous experience; and third, for statistical reliability and validity. Another similarity included endorsement of the reasons for advising clinical students to learn about assessment procedures: first, that assessment results, when incorporated into therapy, facilitate the therapeutic process, and second, that assessment provides a specialty specific to psychologists. The amount of professional time spent in assessment in the United States was three times as much as in New Zealand but clinical psychologists here do proportionately more research, teaching, supervision, consultation and administration than North American clinical psychologists.

The majority of clinical psychologists in New Zealand and the United States of America spend around half of their professional activity hours doing psychotherapy. In New Zealand, of the empirically-validated treatment interventions that are most used by clinical psychologists, the top seven are cognitive and behavioural interventions for anxiety and depression (see Table 9 in Results section). While this may not be particularly surprising, given that anxiety and depression tend to be the most common presenting complaints of adults in self-referred therapy settings (Bergin & Garfield, 1994),-- and that the majority of respondents in this study reported their orientation as cognitive-behavioural-- these results are nonetheless encouraging findings, attesting to a general quality standard of care being provided for clients with these most common disorders. Cognitive-behavioural therapy for chronic pain is the next most taught, used and supervised empirically-validated intervention in New Zealand clinical psychology practice, followed by behavioural marital therapy for relationship distress. Brief psychodynamic

therapies are utilised by over one third (35%) of practitioners and approximately a third (32%) have been trained in them.

These empirically-validated interventions are also remarkably similar to the most taught and supervised interventions in United States of America doctoral and internship programmes (Crits-Christoph et al. 1995). That is, in that study, the cognitive-behavioural interventions comprised the top ten treatments for anxiety, depression, marital distress, and chronic pain (and parent training), and the brief psychodynamic therapies were taught by a third of doctoral programmes and supervised by a quarter of internship site supervisors.

Summary of Hypotheses

The first hypothesis-- that New Zealand clinical psychologists would use a selected core of assessment procedures most frequently-- was supported. The results showed that over half (51% or more) of New Zealand clinical psychologists reported using the following six assessment procedures:

1) Clinical interview
2) Beck Depression Inventory
3) WAIS-R
4) Wechsler Memory Scale Revised
5) State-Trait Anxiety Inventory
6) WISC

The next eight procedures were used by a third or more (33-47%):

7) Structured Diagnostic Interviews
8) Automatic Thoughts/Cognitive Questionnaires
9) Child Behaviour Checklist
10) Peabody Picture Vocabulary Test-R
11) MMPI
12) Children's Depression Inventory
13) Sentence Completion Tests
14) Vineland Social Maturity Scale

With the exceptions of the clinical interview and Sentence Completion Tests, these procedures are all objective measures. While the major reasons for using psychological tests are similar for New Zealand and United States clinical psychologists (e.g. that they answer specific questions), the specific means for accomplishing these goals appears to

differ in some respects. Whereas the U.S. respondents reported using projective methods as much or more than other forms of assessment, the New Zealand respondents did not. The most frequently used projective procedure (Sentence Completion Tests) was ranked number thirteen and mentioned by just under a third of respondents.

The second hypothesis, that New Zealand clinical psychologists would use many more procedures less frequently, was also supported. There were 18 assessment procedures used by between 25% and 50% or more of practitioners, eight used by between 10% and 25%, and six used by 8% to 9%. There were many more tests mentioned and used by fewer psychologists than 8%, particularly in the neuropsychological category.

The third hypothesis, that some of the most frequently used procedures-- namely the WAIS-R, WISC and the MMPI-2 (which are in the ten most frequently used assessment procedures in the United States of America)-- would correspond closely to those used in the United States, was supported. The Wechsler Scales, in the top ten, and the MMPI, ranked 11th, have retained their popularity in New Zealand since Knight and Godfrey's survey of Hospital psychologists in 1984. That these tests have endured to this extent is testimony to their perceived usefulness across the range of clinical settings.

The fourth hypothesis, that New Zealand clinical psychologists would use projective techniques less often than their North American colleagues, was supported. As discussed, the most frequently used assessments were objective procedures. The five projective techniques used were ranked 13, 15, 24, 26, and 31 (out of 38 procedures). Not only were projective techniques ranked lower on the Frequency of Use Index (FUI) by the New

Zealand respondents, but the percentage of clients receiving projective procedures was also smaller than those found in United States research (see Table 4, Results section). Further, only 5% of New Zealand psychologists identified as psychodynamic in orientation and it follows that a minority of practitioners would use projective assessment. A quarter of the New Zealand respondents strongly opposed the teaching of projective procedures, and only 26% thought that they should be taught at all, the remainder expressing no opinion. By contrast, 90% or more of the North American subjects believed that clinical students should be competent in the administration of projective drawings (96%), the TAT (90%), and the Rorschach (90%), compared to the respondents in the current sample (11%, 26%, 15%, respectively).

Finally, no hypotheses were proposed regarding treatment interventions, but these findings are now discussed.

Treatment

In both a United States sample (Watkins et al, 1995) and the current sample, the majority of clinical psychologists spend around half their time doing psychotherapy; 96% spend 51% of their time thus in the United States and 85% spend 44% of their time in this activity in New Zealand.

Over half (52%) the New Zealand respondents described themselves as having a cognitive behavioural orientation, compared to 20% of an American Psychological Association sample of respondents (i.e. cognitive orientation), and most of the clinical interventions practised here were cognitive, behavioural or cognitive-behavioural treatments. Because the U.S.-based study of Crits-Christoph et al (1995) was of directors

of clinical training and internships and the current study focused on practitioners, it was not expected that the treatments taught and supervised in internships in the United States of America would necessarily match the treatments practised in New Zealand, but in fact the treatments were quite similar in both countries. There was a cluster of empirically-validated clinical interventions that were most used by New Zealand clinicians and also most taught and supervised in the American Psychological Association approved doctoral programmes and internships. It is also worth noting that of the list of well-established treatments offered in the North American programmes most (15 out of top 18), were cognitive, behavioural or cognitive-behavioural, and matched the most used clinical interventions practised by the respondents in the current study (16 out of top 18). In the top ten most used interventions here were four separate cognitive and/or behavioural therapies for anxiety disorders, depression, parent skills training, and marital distress. This finding shows that focused therapeutic effort, in both countries, goes into cognitive-behavioural treatment (or training in treatments) of the debilitating phobias, panic disorder, obssessive-compulsive disorders, chronic pain, depression, and interpersonal skills deficits. In New Zealand, the most supervised and the second most used and taught intervention was Beck's Cognitive Therapy for Depression which was the most taught and supervised in the American doctoral programmes. In New Zealand, the most used and taught and second most supervised intervention was Applied Relaxation for Panic Disorder which was the fourth most taught in the American doctoral programmes and the third most supervised.

In the New Zealand research, only five percent of respondents described their theoretical orientation as psychodynamic whereas 21% of the U.S. respondents did so (Watkins et al, 1995). It appears from the research that the brief dynamic therapies are

practised in New Zealand slightly more than they are taught and supervised in the United States of America, but this may be an artifact of the data collection methods. In Crits-Christoph et al (1995), the brief dynamic therapies were enumerated into four therapies, with their own statistics, in which percentages ranged up to 32% of programmes teaching them and 24% supervising them, whereas the New Zealand data was in the one category of brief dynamic therapy which was taught by 32%, practised by 35%, and supervised by 14%. Thirty percent of New Zealand clinical psychologists described themselves as eclectic but the composition of this category is unknown.

Assessment

Assessment practice was similar in New Zealand and the United States in terms of the basic rationale for assessment and general overlap in procedures used, but there were major differences in professional activity time allocation, the reasons given for advising students to learn about assessment, and usage of particular instruments. These will now be discussed.

Mean time spent in assessment activities was four percent for the New Zealand respondents, and twelve percent for the United States of America respondents. Mean time spent in intellectual assessment was four percent and eight percent respectively. For personality assessment, the respective figures were two percent and twelve percent. Vocational/career assessment and ability/aptitude testing time allocation were similarly around one percent for both this and the U.S. sample.

The reasons given for using assessment procedures were almost identical. Six reasons were given to be ranked in importance by the respondents in the North American and New Zealand surveys. The most important reason chosen by both samples was that

"the procedures answer specific assessment questions of interest to clinicians". When combined with the next most endorsed reasons of "previous clinical experience" and "statistical reliability and validity," these three received the highest mean ratings in both studies. "Graduate training experiences" were cited as the fourth most important reason for using assessment procedures in both studies.

Although reasons for using assessment procedures themselves were almost exactly the same for clinicians in both countries, when asked about reasons for advising clinical training students to learn about assessment procedures, some differences emerged. The most important reason in New Zealand was pragmatically "that assessment results, when incorporated into therapy, facilitate the therapeutic process," which was the North Americans' second choice. The most important reason for North American respondents was "that assessment procedures yield information about client personality structure," which is consonant with the priority of clinicians' time spent in personality assessment activities, and with the high ranking of the MMPI and projective tests on their frequency of use index. For New Zealand respondents, that reason was fourth most important. The two groups were similar in agreeing that "assessment provides the therapist with a specialty specific to psychologists," ranking it second (NZ), and third (USA); however, New Zealand clinicians ranked the item "assessment results enable accurate behavioural predictions," much higher than the North American respondents (third versus seventh). The reason that "assessment satisfies juristic or legal requirements" was chosen fourth by the North American practitioners and sixth here. The reason that "assessment enhances employability or income" was more important in the United States (5th), than in New Zealand (8th), and "increasing client-therapist rapport" and "enhancing prestige through assessment" were nearly or least important reasons for both groups.

Major commonalities were found when comparing the frequency of assessment usage indices (FUI) across the two countries. Clearly most popular in both samples was the clinical interview, used by 87% of New Zealand and 95% of North American respondents. Amongst the twenty most frequently used procedures in each of the two countries, the two populations shared fourteen out of twenty procedures, albeit with some previously discussed similarities and differences in their preferential rankings of the procedures. Similarity was seen in the proportions of tests used. In New Zealand there were 24 assessment procedures used by 25% or more of practitioners with the remaining 14 on the most used list of 38 utilised by between 8% and 23%. This was comparable to the research of Watkins et al (1995) where it was found that 27 assessment procedures were used by 25% or more of practitioners with the remaining 11 used by between 1% and 22%.

The questionnaire asked respondents which five specific projective assessment procedures they believed clinical students should be competent in. While almost a quarter (24%) wrote "none," another quarter (26%), believed that the Thematic Apperception Test should be taught to competency, and 15% recommended the Rorschach. Recommended by slightly more than 10% were the Children's Apperception Test, Sentence Completion methods, Draw-a-Person and Projective Drawings, and recommended by less than 10% were the Bene Anthony Family Relations Test and Kinetic Family Drawings. In the specific tests recommended, the New Zealand clinicians were similar to the North American clinicians but they differed in percentages of clinicians recommending the procedures. Ninety percent or more of the North American respondents recommended Projective Drawings, the TAT and Rorschach, with lesser percentages for Sentence Completion (52%), the CAT (22%) and the Bender-Gestalt (10%). There were not as

many abstainers and certainly no reports of strong anti-projective sentiments such as the New Zealand group produced.

In the current study, a more enthusiastic picture emerged when the objective assessment procedures in which students should be competent were listed. The Wechsler scales, namely the WAIS, WISC and WPPSI together as a composite, were recommended by 84%, a figure very close to that found in the U.S. research (Watkins et al, 1995). The Beck Depression Inventory, recommended by 49% of New Zealand respondents, was in second place (but did not appear on the corresponding United States list), and 40% of respondents thought that neuropsychological tests (unspecified) should be taught, whereas only the Bender-Gestalt appeared (17%) in the United States of America list. In fourth place was the MMPI-2 recommended by 37% as compared to top place in the United States of America list with 97% of respondents recommending it. Other objective procedures the current respondents recommended for clinical students to learn were the Wechsler Memory Scale, Millon Clinical Multiaxial Inventory, State-Trait Anxiety Inventory and the Stanford-Binet recommended by between 14% and 30%. Below those, there were several neuropsychological tests and behavioural checklists recommended. These results seem to reflect aspects of therapy practice; it could be said that in New Zealand there are emphases on treating anxiety and depressive disorders, behavioural treatments and neuropsychology. It would follow that assessment would be tailored to meet those needs.

It would be expected that the tests recommended by practitioners for students to learn would be the same as those most frequently used day to day by the respondents but this was not the case for either the New Zealand or the United States group. The most used projective test in both samples was Sentence Completion methods, ranked 4th out of

38 in the United States and 13th out of 38 in the New Zealand list. However, the most recommended projective tests were the TAT (recommended by 26%), the Rorschach (15%), and the CAT (12%) which was recommended equally with Sentence Completion methods (12%) in New Zealand. Most recommended in the United States were Projective Drawings (96%), TAT (90%), Rorschach (90%), and in 4th place, Sentence Completion methods (52%). As previously mentioned, these four projective techniques together with the Bender-Gestalt comprised five of the eight most frequently used assessment methods in the United States research and are used by 80% or more of respondents. By contrast, this New Zealand-based research found six projective techniques ranked between 13th and 31st of the most frequently used tests, and all six were used by fewer than a third of respondents. As expected from this extensive use of projective techniques by the USA sample, there were more U.S. than N.Z. practitioners describing their theoretical orientation as psychodynamic (21% versus 5%).

Amongst the most frequently used procedures in New Zealand were instruments that were not included on the United States of America list such as the State-Trait Anxiety Scale, Structured Diagnostic Interviews, Automatic Thoughts/Cognitive Questionnaires, State-Trait Anger Scale, Conner's Questionnaires and the State-Trait Anxiety Scale For Children. These measures are largely of the objective cognitive and behavioural kind that yield results able to be quantified and directly translated into behavioural or cognitive treatment design, application, and outcome measurement. Three measures of this type that the North American respondents did report using were the Children's Depression Inventory, Child Behaviour Checklist and Hopkin's Symptom Checklist 90-R.

Conclusions

From all the information gathered about assessment and clinical intervention in New Zealand the following conclusions may be drawn:

(a) New Zealand clinical psychologists in the current sample spend just under half their professional activity time doing psychotherapy, 14% in administration, and around 7% doing each of research, teaching, supervision, consultation, and other tasks, and between 1% and 6% doing assessment.

(b) New Zealand clinical psychologists use formal assessment procedures for their clientele. Most assessment is objective, structured assessment (versus projective methods).

(c) They assess predominantly to answer specific assessment questions but also because of previous clinical experience and statistical reliability and validity.

(d) They wish clinical students to learn about assessment procedures in order to utilise the results in facilitating the therapeutic process.

(e) They recommend that clinical students should be competent in administering the objective procedures that they use most themselves (Wechsler Scales, Beck Depression Inventory, Wechsler Memory Scale-R, State-Trait Anxiety Inventory recommended by 20%-84%) plus MMPI-2 and MCMI, but one quarter recommend no competency training in projectives, only one quarter recommend the TAT, and 40% gave no opinion on projectives. Curiously, the clinicians' most used projective (Sentence Completion methods) was fourth most recommended for students. Projectives appear to be used and recommended with relative infrequency, unlike in the United States where they are used and recommended with much greater frequency.

(f) New Zealand clinical psychologists describe themselves as cognitive-behavioural in orientation (52%) or eclectic (30%) and many of these practise empirically-validated cognitive, behavioural and cognitive-behavioural treatment interventions. In addition, over a third (35%) use Brief Dynamic Therapies and under a third (28%) use Longer term Dynamic or Psychoanalytic Therapy.

(g) The ten most used clinical interventions by the respondents were very similar to the most taught and supervised interventions in APA-approved doctoral programmes; all were empirically-validated cognitive, or behavioural interventions, or a combination, except for the brief dynamic therapies ranked tenth by New Zealand respondents.

Caveats/Limitations.

The usable return rate of 35% was not as high as desired. Follow-up postings may have produced a higher return. However, the return rate was comparable to the return rate in the United States assessment-based research (42%; Watkins et al, 1995). In addition, because the number returned was 137, it was sufficient to draw a preliminary picture of some aspects of New Zealand clinical practice. Since only two directors of clinical training returned the survey, it was decided not to include analyses of training programmes.

The study asked about use of assessment procedures and did not attempt to determine proficiency; the issue of user competence needs to be explored separately.

Presenting lists of assessment procedures and clinical interventions may have biased the results although respondents were free to write in their preferences and many did. These were included in the analyses and discussed in the text.

One respondent thought that there should have been categories for adult and child

practitioners. This would have been useful for differentiating between assessment and intervention as practised by child, adolescent and adult practitioners and indeed might be added for future research.

It may be the case that the survey instrument needed to be better adapted to New Zealand demographic conditions. Judging from the demographic section of the completed questionnaires, the category of "University Dept. Other" (than Psychology) could have been left out and one of "Justice" put in. Numerically the categories of Community Mental Health, Outpatient Clinic, University Psychology Dept. and Justice/Corrections each contributed 10% of the respondents, this latter category of Justice/Corrections arising out of written responses on the questionnaires.

For the question asking about primary theoretical orientation, a multiple answer in ranked format might be considered in future research. This would open the way for more information about the choice of approach that clinical psychologists use instead of having it obscured by the umbrella term eclectic. The subject could then tick eclectic plus preferred approaches. While eclectic practice may reflect accurately practitioners' approaches, additional information would be desirable.

From the responses received regarding clinical interventions, it was obvious that some New Zealand clinical psychologists use different treatments (e.g. Cognitive-behavioural therapy for anxiety in children, narrative therapy for anorexia) to those which North American schools were teaching in 1995. The list could have been made more specifically "New Zealand" by a pilot study to obtain feedback before finalising the survey questionnaire. However, it is also the case that the majority of the respondents reported a cognitive-behavioural orientation that was reflected in both assessment and treatment practice.

A problem arose when the descriptor word "objective" was used in the New Zealand questionnaire. From comments of respondents, there appears to be a major difference in opinion as to the meaning of the term objective when applied to the categorisation of tests. Kline (1994) defines an objective test as when the purpose of the questions or test is not obvious to the test taker, (i.e. not face valid). Anastasi (1988) concurs with Kline in saying that the purpose of the objective test is disguised, and further defines objective tests as task oriented, where the task is structured, and possibly as having a perceived"right solution". Many respondents showed their agreement with these experts by not entering the use of self-rating instruments such as the Beck Depression Inventory in the objective test question. Some wrote in a separate category of subjective for these. That there is not always a clear difference perceived between objective and projective procedures was borne out by the many respondents who mingled their answers to the questions on their recommendations of tests for students to learn. Future research might look at these issues by surveying psychologists in different settings and ascertaining their perceptions of these descriptors.

Implications/Future Directions

A major difference between the research subjects of Watkins et al and the current study was that nearly twice as many of the United States respondents (57%) were in private practice as compared to the New Zealand sample (29%). This indicates that clinical psychologists in New Zealand may be more diverse and that their practice may be differentiated into more specialty areas. Of course, it may also simply reflect differential return rates of the survey. Future research is needed to clarify this issue.

Theoretical orientation also differed markedly across samples and this may relate to

differential return rates or to potentially major differences in the assessment procedures used in the two countries, particularly the emphasis on personality-based assessment by the North Americans which was six times greater and implemented through projective assessment methods. On the other hand, when New Zealand clinicians did engage in personality assessment, they used the MMPI more than any projective measure. Research on assessment training may help clarify differences in assessment practice.

There must be research into the clinical training programmes in New Zealand since this attempt was unsuccessful in getting surveys returned. The profession needs to know what the Universities and internships are teaching and what competencies are required. This information must then be made available in New Zealand to help inform future training efforts.

We also need to know the methods of treatment used in New Zealand for children, young persons, adults, older adults, males and females. Because some of our assessment emphases are so different from the United States, it may be that we diagnose and intervene differently for some particular client groups also. Even though only 5% of our respondents report a psychodynamic theoretical orientation, almost 35% report using Brief Dynamic Therapies in their interventions, perhaps reflecting an eclectic pragmatism of New Zealand practitioners.

There is a need for research into the clinical interventions that are applied here by some that are not fully validated (e.g., narrative therapy). The popularity of narrative therapy in New Zealand for many disorders such as anorexia, depression, anxiety, behaviour difficulties, eneuresis, encopresis and PTSD in children, and for violent behaviour and marital therapy, means that validation studies must be done using Crits-Christoph et al's criteria for empirical validation of interventions.

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APPENDIX A

Clinical Psychologists' Opinions About and Uses of Tests, Assessment, and Intervention Procedures

Please complete this questionnaire <u>even if you seldom or never engage in assessment activities.</u>

1. Sex (circle one): 1 Female 2 Male

2. Chronological age: _____ years old

3. Highest academic degree (circle one):
    1. MA or MS
    2. Ph.D.
    3. Other

4. Year degree received: 19_____

5. Year registered as a psychologist: 19_____

6. Ethnic/Racial background (circle one):

1.	Caucasian	4.	Asian
2.	Maori	5.	Other
3.	Pacific Is.		

7. Primary job affiliation: Please check only one

____ 1. Community MHC
____ 2. Student Counselling Centre
____ 3. Private Practice
____ 4. University Psychology Dept.
____ 5. University Dept., Other
please specify_____
____ 6. Outpatient clinic
____ 7. Psychiatric Hospital
____ 8. General Hospital
____ 9. Medical School
____ 10. None
____ 11. Other _____

8. Please place a check beside the one approach that most closely resembles your primary theoretical orientation.

____ 1. Adlerian
____ 2. Behavioural
____ 3. Cognitive-Behavioural
____ 4. Eclectic
____ 5. Existential
____ 6. Gestalt
____ 7. Humanistic
____ 8. Psychoanalytic
____ 9. Psychodynamic (Neo-Freudian)
____ 10. Rogerian (client-centred)
____ 11. Other _____

9. Kindly indicate the percentage of time you presently devote to the following activities:

Psychotherapy/Personal Counselling	____ % of time
Personality Assessment	____ % of time
Vocational/Career Assessment	____ % of time
Intellectual Assessment	____ % of time
Ability\Aptitude Assessment	____ % of time
Research	____ % of time
Teaching	____ % of time
Supervision	____ % of time
Consultation	____ % of time
Administration	____ % of time
Other _____	____ % of time
	100%

10. Approximately <u>how many</u> psychological tests/assessment procedures do you administer or order administered each week?

____ a. Objective tests/procedures (e.g., MMPI-2, WAIS-R)

____ b. Projective tests/procedures (e.g., TAT, figure drawings)

11. What percentage of your clients or patients are administered psychological tests/assessment procedures?

____ a. Objective tests/procedures

____ b. Projective tests procedures

12. Using the following scale, please indicate the importance of the following factors in your decisions to use psychological tests/assessment procedures. (Place the appropriate number in the designated space.)

1	2	3	4	5
no importance	little importance	moderate importance	substantial importance	great importance

____ a. Graduate training experiences

____ b. Previous clinical experience with tests\assessment procedures

____ c. Answers specific assessment questions

____ d. Statistical reliability and validity

____ e. Requirements of the agency or institution with which you are associated

____ f. Availability through the agency or institution with which you are associated

13. If you were advising Clinical Psychology students why they should learn about psychological tests\assessment procedures, what importance would you ascribe to the following factors? Please respond by using the following scale, placing the appropriate number in the designated space.

1	2	3	4	5
never	rarely	sometimes	frequently	always

___ a. Assessment yields information about the client's personality structure

___ b. Assessment increases client-therapist rapport

___ c. Assessment enhances the therapist's prestige as perceived by clients

___ d. Assessment provides the therapist with a specialty specific to psychologists

___ e. Assessment enhances therapist employability and\or income

___ f. Assessment satisfies juristic or legal requirements

___ g. Assessment satisfies institutional demands regarding diagnostic services

___ h. Assessment results enable therapists to make accurate behavioural predictions

___ i. Assessment results, when incorporated into therapy, facilitate the therapeutic process

14. In your opinion, with what five projective tests/assessment procedures should clinical psychology students be competent?

(1) _____ (4) _____

(2) _____ (5) _____

(3) _____

15. In your opinion, with what five objective tests/assessment procedures should clinical psychology students be competent?

(1) _____ (4) _____

(2) _____ (5)

(3) _____

16. How often do you use each of the following measures when providing assessment services?

Using the scale below, place the appropriate number in the designated space.

1	2	3	4	5
never	occasionally	moderately	frequently	always

___	Minnesota Multiphasic Personality Inventory-II	___	Wechsler Adult Intelligence Scale-Revised
___	Bender-Gestalt	___	Rorschach
___	Wechsler Intelligence Scale for children-III	___	Halstead-Reitan Neuropsychological Battery
___	Sentence completion tests	___	State-Trait Anxiety Inventory
___	Thematic Apperception Test	___	Projective drawings
___	Strong Interest Inventory	___	Stanford-Binet Intelligence Scales
___	Edwards Personal Preference Schedule	___	California Psychological Inventory
___	Derogatis Sexual Functioning Inventory	___	Peabody Picture Vocabulary Test-Revised
___	MMPI-Adolescent	___	Personality Tests (e.g., 16 PF, NEO, Big 5 inventories)
___	Wechsler Preschool and Primary Scale of Intelligence - Revised	___	Wide Range Achievement Test-Revised
___	State-Trait Anxiety Inventory for Children	___	Wechsler Memory Scale-Revised
___	Dyadic Adjustment Scale	___	Millon Clinical Multiaxial Inventory
___	Millon Adolescent Personality Inventory	___	Child Achievement Tests (e.g., Woodcock-Johnson, WIAT)
___	Personality Inventory for Children	___	Children's Depression Inventory
___	Children's Apperception Test	___	Child Behaviour Checklist
___	Kaufman Assessment Battery for Children	___	Myers-Briggs Type Indicator
___	Luria-Nebraska Neuropsychological Battery	___	Structured Diagnostic Interviews
___	Symptom Checklist-90R	___	Vineland Social Maturity Scale
___	Conner's Questionnaires	___	Beck Depression Inventory
___	Automatic Thoughts/ Cognitive Questionnaires	___	Clinical interview
___	Other, please specify _____		

Clinical Intervention Applications

Please check in the first column which treatment approaches you currently use. In the second column, indicate whether you have been taught or supervised in these approaches. In the third column indicate whether you are currently teaching or supervising these approaches.

Currently Use	Taught or Supervised	Teaching or Supervising	
—	—	—	Applied relaxation for panic disorder
—	—	—	Beck's Cognitive Therapy for depression
—	—	—	Behaviour modification for developmentally disabled individuals
—	—	—	Behaviour modification for enuresis and encopresis
—	—	—	Behaviour therapy for headache and for irritable bowel syndrome
—	—	—	Behaviour therapy and cognitive behaviour therapy for obesity
—	—	—	Behaviour modification for sex offenders
—	—	—	Behaviour therapy for female orgasmic dysfunction and male erectile dysfunction
—	—	—	Behavioural marital therapy
—	—	—	Biofeedback skills
—	—	—	Brief Dynamic Therapies
—	—	—	Client-centred therapy for generalised anxiety disorder
—	—	—	Cognitive-Behavioural Therapy for Anxiety in Children
—	—	—	Cognitive-Behavioural Therapy for Non-Self-Control in Children
—	—	—	Cognitive behaviour therapy for children's anxiety disorders
—	—	—	Cognitive behaviour therapy for chronic pain
—	—	—	Cognitive behaviour therapy for panic disorder with and without agoraphobia
—	—	—	Cognitive behaviour therapy for generalised anxiety disorder
—	—	—	Dialectical behaviour therapy for borderline personality disorder
—	—	—	Emotionally focused couples therapy
—	—	—	Exposure treatment for alcohol abuse and dependence and for smoking cessation

Currently Use	Taught or Supervised	Teaching or Supervising	
—	—	—	Exposure treatment for phobias (agoraphobia, social phobia, simple phobia) and PTSD
—	—	—	Exposure and response prevention for obsessive-compulsive disorder
—	—	—	Family education programs for schizophrenia
—	—	—	Group cognitive behaviour therapy for social phobia
—	—	—	Habit reversal and control techniques
—	—	—	Interpersonal therapy for bulimia
—	—	—	Klerman and Weissman's Interpersonal Therapy for depression
—	—	—	Lewinsohn's psychoeducational treatment for depression
—	—	—	Longer term (time unlimited) dynamic or psychoanalytic therapy
—	—	—	Narrative Therapy for anorexia
—	—	—	Other short-term dynamic therapy
—	—	—	Parent training programs for children with oppositional behaviour
—	—	—	Play Therapy for children with depression
—	—	—	Social learning therapy for schizophrenia
—	—	—	Strategic family therapy
—	—	—	Structural family therapy
—	—	—	Systematic desensitisation for simple phobia
—	—	—	Token economy programs

THANKS

APPENDIX B

Empirically-validated Treatments from Crits-Christoph et al. (1995)

Treatment	Source for evidence of efficacy
a) Well-established treatments	
Beck's cognitive therapy for depression	Dobson (1989)
Behavior modification for developmentally disabled individuals	Scotti, Evans, Meyer & Walker (1991)
Behavior modification for enuresis and encopresis	Kupfersmid (1989) Wright & Walker (1978)
Behavior for headache and for irritable bowel syndrome	Blanchard, Schwarz, & Radnitz (1987) Blanchard, Andrasik, Ahles, Teders, & O'Keefe (1980)
Behavior therapy for female orgasmic dysfunction and for male erectile dysfunction	LoPiccolo & Stock (1986) Auerbach & Kilmann (1977)
Behavioral marital therapy	Azrin, Bersalel, et al. (1980) Jacobson & Follette (1985)
Cognitive behavior therapy for chronic pain	Keefe, Dunsmore & Burnett (1992)
Cognitive behavior therapy for panic disorder with and without agoraphobia	Barlow, Craske, Cerny, & Klosko (1989) Clark et al.
Cognitive behavior therapy for generalised anxiety disorder	Butler, Fennell, Robson & Gelder (1991) Borkovec et al. (1987) Chambless & Gillis (1993)
Exposure treatment for phobias (agoraphobia, social phobia, simple phobia) and posttraumatic stress disorder	Mattick, Andrews, Hadzi-Pavlovic, & Christensen (1990) Trull, Nietzel, & Main (1988) Foa, Rothbaum, Riggs, & Murdock (1991)
Exposure and response prevention for obsessive-compulsive disorder	Marks & O'Sullivan (1988) Steketee, Foa, & Grayson (1982)
Family education programs for schizophrenia	Hogarty et al. (1986) Falloon et al. (1985)
Group cognitive behavioral therapy for social phobia	Heimberg, Dodge, Hope, Kennedy, & Zollo (1990) Mattick & Peters (1988)
Interpersonal therapy for bulimia	Fairburn, Jones, Peveler, Hope & O'Conner (1993) Wilfley et al. (1993)
Klerman & Weissman's interpersonal therapy for depression	DiMascio et al. (1979) Elkin et al. (1989)
Parent training programs for children with oppositional behavior	Wells & Egan (1988)
Systematic desensitization for simple phobia	Walter & Gilmore (1973) Kazdin & Wilcoxin (1976)
Token economy programs	Liberman (1972)

table continued ...

b) Probably efficacious treatments

Applied relaxation for panic disorder	Ost (1988) Ost & Westeling (1991)
Brief psychodynamic therapies	Piper, Azrin, McCallum & Joyce (1990) Shefler & Dasberg (1989) Thompson, Gallagher, & Breckenridge (1987) Winston et al. (1991) Woody, Luborsky, McLellan, & O'Brien (1990)
Behavior modification for sex offenders	Marshall, Jones, Ward, Johnston & Barbaree (1991)
Dialectical behavior therapy for borderline personality disorder	Linehan, Armstrong, Suarez, Allmon, & Heard (1991)
Emotionally focused couples therapy	Johnson & Greenberg (1985)
Habit reversal and control techniques	Azrin, Nunn, & Frantz (1980) Azrin, Nunn & Frantz-Renshaw (1980)
Lewinsohn's psychoeducational treatment for depression	Lewinsohn, Hoberman, & Clarke (1989)