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Improving clinical judgements

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This portfolio is submitted for the degree of Doctor of Psychology (Clinical)
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is the result of my own research, except where otherwise acknowledged, and that this portfolio in whole or in part has not been submitted for an award, including higher degree, to any other university or institution.

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I dedicate this volume to my father and mother, Anthony John and Thelma Jean Bell, as an expression of appreciation for their enduring love and support.
CONTENTS

Abstract 1

Chapter 1.

Improving clinical judgements

1.1. “Clinical” versus “statistical” approaches to clinical judgements 2
    1.1.1. Definitions 2
    1.1.2. The debate – the relative merits of clinical versus statistical prediction 4
    1.1.3. Are clinical judgements sometimes superior? 6
    1.1.4. Conclusions 8

1.2. Sources of error in clinical judgements 9
    1.2.1. Introduction 9
    1.2.1. Reliability 10
        1.2.1.1. Theoretical frameworks 10
        1.2.1.2. Cognitive heuristics and other sources of bias 11
        1.2.1.3. Limits to information processing abilities 15
        1.2.1.4. Over-reliance on the clinical interview 15
    1.2.3. Conclusion 16

1.3. Improving clinical judgements 17
    1.3.1. Introduction 17
    1.3.2. Expertise, experience and training 17
    1.3.3. Using quality instruments and procedures 18
    1.3.4. Being selective 19
1.3.5. Wariness about over-reliance on theories  
1.3.6. The scientist-practitioner approach  
1.4. Conclusion  
1.5. The chapters ahead

Chapter 2.

The neuropsychological assessment of a young man with schizophrenia

2.1. Introduction  
2.2. Cognitive deficits in schizophrenia – theory  
2.2.1. Specific deficits  
2.2.1.1. Attentional deficits  
2.2.1.2. Deficits in executive functioning  
2.2.1.3. Memory deficits  
2.2.1.4. Deficits in language  
2.2.2. Cognitive deficits and functional outcome  
2.2.3. Antipsychotic medications, cognitive functioning and functional outcome  
2.2.4. Summary  
2.3. Instruments for data collection  
2.4. Cognitive deficits in schizophrenia – case study  
2.4.1. Background and reason for referral  
2.4.2. Personal history  
2.4.3. Psychiatric history  
2.4.4. Functional concerns  
2.4.5. Clinical presentation
2.4.6. Tests administered

2.4.7. Neuropsychological findings
   2.4.7.1. Attention and short-term memory
   2.4.7.2. Executive functions
   2.4.7.3. Verbal intellectual abilities
   2.4.7.4. Visuospatial abilities
   2.4.7.5. New learning and recent memory
   2.4.7.6. Numeracy and literacy

2.4.8. Summary and conclusions

2.4.9. Recommendations

2.5. Comparing the theory with the practice

2.6. Summary and conclusions

Chapter 3.

The use of an empirically validated treatment for Posttraumatic Stress Disorder

3.1. Introduction

3.2. Literature review
   3.2.1. Criteria for treatment quality
   3.2.2. Exposure therapies for PTSD – An overview
   3.2.3. Research into exposure therapies
   3.2.4. Practical considerations

3.3. Case study of the treatment of PTSD
   3.3.1. Background information
   3.3.2. Presenting problems
   3.3.3. Treatment program planning
3.3.4. Treatment program implementation 63

3.4. Summary and conclusions 68

Chapter 4.

A family systems approach to treating a child’s “problem behaviours”

4.1. Introduction 70

4.2. Family systems – general considerations 71

4.2.1. Considering the individual’s context 71

4.2.2. Bouvric Information and Assessment Schema 74

4.2.3. BIAS and the current case 76

4.3. Family systems – Case study using the BIAS 77

4.3.1. Pre-interview contacts 77

4.3.2. Problems presented 79

4.3.3. Family transactional patterns 80

4.3.4. Family transitions 83

4.3.5. Social contexts 84

4.3.6. Individual family members – the identified client 85

4.3.7. Transgenerational issues 86

4.3.8. Resources and limitations for therapy 88

4.3.9. The therapist 89

4.3.10. Current formulation 90

4.3.11. Therapeutic strategies – theory 92

4.3.12. Therapeutic strategies – practice 93

4.4. Conclusion 95
Chapter 5.

Structured clinical interviews, manualised treatments and panic disorder

5.1. Introduction 97
5.2. Structured clinical interviews 98
5.3. Manualised treatments 99
5.4. Panic disorder 100

5.4.1. Panic attacks and panic disorder 100
5.4.2. Treatment approaches 101

5.4.2.1. Psychopharmacology 101
5.4.2.2. Cognitive-behaviour therapy 102

5.5. Case Study – Jacintha and Panic 104

5.5.1. Assessment 104

5.5.1.1. Mental State Examination 105
5.5.1.2. Structured Clinical Interview for DSM-IV disorders 105
5.5.1.3. DSM-IV multiaxial evaluation 108

5.5.2. Treatment program 109

5.5.2.1. Session one 110
5.5.2.2. Session two 111
5.5.2.3. Session three 113
5.5.2.4. Sessions four and five 114
5.5.2.5. Session six 115
5.5.2.6. Sessions seven and eight 116
5.5.2.7. Sessions nine to twelve 118
5.5.2.8. At discharge 118
5.6. Conclusion 120

Chapter 6.

Conclusion

6.1. Introduction 122

6.2. The case studies – A review 123

6.3. Improving clinical judgements – Final word 124

References 126

Appendix One 143
Abstract

This portfolio explores issues that are relevant to the judgements routinely made by clinical psychologists. The first chapter provides a theoretical overview of relevant issues. In this chapter, firstly, the debate over the relative merits of "clinical" and "statistical" approaches to clinical judgement (McGill, 1954) is reviewed. It is noted that, although much of the empirical evidence supports the greater accuracy of statistical approaches to making judgements (where appropriate methods exist), they are rarely routinely used, and clinical approaches to making judgements continue to dominate in the majority of clinical settings. Secondly, common sources of errors in clinical judgement are reviewed. These include the misuse of cognitive heuristics, the presence of clinicians' biases, the limitations to human information-processing capacities and the over-reliance on clinical interviews. Finally, some of the basic strategies that can be useful to clinicians in improving the accuracy of clinical judgement are described. These include undertaking advanced level training programs, using quality instruments and procedures, being wary of over-reliance on theories, adhering to the scientist-practitioner approach and being selective in the distribution of professional efforts and time. In the subsequent chapters these strategies are explored further through four clinical case studies. These cases were collected during the university placement program and they have been selected to illustrate some of the approaches a clinician may use in attempting to optimise the accuracy of judgements necessary in the context of clinical psychological practice. The final chapter provides a brief overview and discussion of these cases in relation to the issues identified in Chapter One.
CHAPTER ONE:

IMPROVING CLINICAL JUDGEMENTS

1.1. "Clinical" Versus "Statistical" Approaches to Clinical Judgements

1.1.1. Definitions

Clinical judgements are made by mental health professionals many times during patients’ contacts with psychiatric services. Such judgements are central to formulating the characteristics of the presenting problem in its context, in predicting long-term prognoses, in guiding the selection, planning and initial implementation of treatments, in monitoring the progress of therapeutic interventions, and in evaluating if and when recovery has been achieved. It is therefore essential for clinical judgements to reflect pertinent information about the individual (Messick, 1980, 1995).

"Clinical" judgements involve idiographic multifaceted, multidimensional conceptualisations of the unique individual (Korchin & Schuldberg, 1981), rather than nomothetic analyses of the groups to which the individual may belong and about which probabilistic (statistical) generalisations may be made (Dawes, 1994). Clinical judgements therefore require the understanding of an individual’s psychiatric profile and the appreciation of his or her unique environmental contexts (Hoshmand & Polkinghorn, 1992). They are, by definition, based on subjective or intuitive integrations of often diverse data collected using a range of methods (including interviews, observations and projective and objective testing techniques) that are frequently intended to tap both conscious and unconscious psychological functioning. Sarbin (1986) argued that clinical
judgement provided “narrative truth”, a sense of coherence within the clinical formulation with data used and combined indirectly to make judgements (p. 362). Clinical judgements have also been described as informal, subjective (Grove & Meehl, 1996; Grove, Zald, Lebow, Snitz & Nelson, 2000), impressionistic, (Grove & Meehl, 1996) and psychodiagnostic (Korchin & Schuldberg, 1981).

Using the clinical approach places the clinician at the centre of the psychotherapeutic process and the final adequacy of the clinician’s judgement is largely dependent on his or her knowledge base, his or her skills in conceptualising, seeking and collecting relevant, valid and reliable data, and his or her abilities in integrating and interpreting the complex array of data that is collected. Therefore, the final utility of clinical judgement depends on both the ecological validity of the information collected and the appropriateness of the clinician’s abilities in cue utilisation (Brunswick, 1956; Sawyer, 1966).

However, the “clinical” approach to making judgements is often criticised for the inexplicit, subjective processes involved in data integration. Some opponents of the approach argue it is better to combine information using mechanical, statistical approaches that require little by way of subjective interpretation, that are absolutely reliable, and that permit comparisons of the individual with existing normative data. Therefore, the “statistical” approach is perhaps best exemplified by circumstances where judgements are made on the basis of test scores from standardised, valid and reliable instruments that specify clear guidelines for data collection and which produce unambiguous scores that can be combined in regression equations, an approach that permits conclusions to be drawn that are based solely on the empirical relationship between the information and the criterion score. Sarbin (1986) described statistical
judgements as providing "historical truth" (p. 362), with prior conclusions providing optimal weights to enable probabilistic evaluations (Sarbin, Taft & Bailey, 1960). Various alternate terms are used to specify statistical approaches, including actuarial, algorithmic (Grove & Meehl, 1996; Grove et al., 2000), formal, mechanical, (Grove & Meehl, 1996) and psychometric (Korchin & Schuldberg, 1981).

1.1.2. The Debate – The Relative Merits of Clinical Versus Statistical Prediction

Meehl's (1954) meta-analysis was seminal to the debate over the accuracy of clinical versus statistical prediction. Meehl, a practising clinical psychologist, was reluctant to accept Sarbin's (1944) argument that clinicians were unlikely to be able to improve on statistical techniques for combining data collected in clinical contexts, and he hoped to demonstrate that clinical approaches were more accurate in at least certain situations. Meehl examined twenty contemporary studies that compared the two methods of prediction, concluding that there was overwhelming evidence that statistical approaches to prediction were more accurate than clinical approaches over many different fields of enterprise using many different predictive criteria. He reported, for example, that academic success was better predicted by a linear combination of high school rank and aptitude test scores than by judgements of experienced University admissions officers, that criminal recidivism was better predicted by past criminal and prison records than by the judgements of expert criminologists, and that the success of electroshock treatment in treating psychosis was better predicted by a statistical combination of data concerning the patient's marital status, the length of psychotic distress, and level of individual insight than by the judgements of hospital medical and
psychological staff.

Given that clinical approaches to decision making prevailed at the time of Meehl’s (1954) study, these findings caused considerable consternation, and, in fact, they continue to do so 50 years later. Remarkably little has changed in the decision-making practices of some clinical psychologists in response to the clear empirical evidence, although a minority within the profession have embraced significant changes that would elicit the approval of Meehl. Dawes, (1994) argued this resistance to change could be understood best in terms of clinicians protecting professional power and influence, and progressively moving away from an historical commitment to the empirical validation of practice parameters. In addition, Grove and Meehl (1996) posited that resistances reflect clinicians’ fears of unemployment due to the refinements in assessment procedures, perceptions of the statistical process as dehumanising their patients, reluctance to abandon explanatory theories and, sometimes, poor education in scientific techniques. This debate is likely to intensify further given the advent of powerful computers and increasingly sophisticated programs that can assist in organising data to make complex decisions (Einhorn, 1988; Garb, 1998, 2000).

Meehl’s (1954) findings have been replicated, extended and refined many times over the ensuing years, often through the use of meta-analytic techniques (e.g., Dawes, Faust & Meehl, 1989; Grove et al., 2000; Holt, 1970; Sawyer, 1966). All except Holt have found statistical methods to be more accurate. The largest meta-analysis to date was conducted by Grove et al. and involved 136 studies comparing the accuracy of clinical and statistical judgements in relation to human health and behaviour, and specifically medical and health diagnoses and prognoses, and treatment outcomes. The clinicians whose judgements were examined included psychiatrists, psychologists, social workers
and others, and education levels ranged from little above high school level, to an upper bound of the highly educated medical sub-specialists. Results of the meta-analysis indicated the accuracy of the statistical analyses was at least equal to that derived by clinical methods in up to 94% of cases, and significantly better in up to 47% of studies. The overall accuracy of statistical methods was estimated to be approximately 10% greater than that associated with clinical approaches despite the fact that clinicians often had access to more information. Grove et al. also reported that the accuracy of judgements did not reflect characteristics of the predictive criteria, clinicians’ backgrounds or clinicians’ levels of education, and they also observed that clinical judgements were even less accurate when data considered included clinical interviews. They concluded that, because statistical methods were generally considerably more accurate and were usually cheaper, their use was to be preferred wherever relevant algorithms or actuarial data existed.

1.1.3. Are Clinical Judgements Sometimes Superior?

The clinician continues to have much to contribute if only because suitable statistical formulae or actuarial tables do not exist or are not sufficiently developed in many fields of psychological judgement. Consequently, some critics argue that the central issue is that of enhancing the level of accuracy of judgements made by any means, rather than the testing of the relative merits of the two main approaches to prediction (Holt, 1986; Sawyer, 1966; Snyder, 2000). Unfortunately, while the debate over clinical versus statistical prediction may have achieved a significant degree of theoretical sophistication, it has largely failed in guiding clinicians in improving their judgement
accuracy. Holt (1970, 1986) for example, has strongly advocated the value of clinical judgement, but has largely failed to identify how, when, in what contexts and by whom such judgements should be made.

It is significant that clinical and statistical approaches to judgements are not necessarily distinguished by differences in the types of data sought, the settings in which judgements are made, the clinicians who make the judgements or the methods by which data is collected. The essential distinction is in the method of data integration – data from objective tests such as numerical scores can be “clinically” combined using informal, subjective methods, and data from projective tests, interviews and behavioural observations can be appropriately encoded and “statistically” integrated for comparison with normative data (Grove & Meehl, 1996).

Some analysts argue that clinical and statistical approaches cannot be combined or used simultaneously because they can lead to inherently contradictory predictions or judgements (Grove et al. 2000). However, examples of circumstances where combined clinical and statistical approaches are successful include situations in which computer based interpretive systems leave examinees unclassified or banded into excessively broad categories such that clinical judgement is necessary to interpret the individual’s unique responses and to fill the information gaps (Vale & Keller, 1987), when checklists are used to guide clinical data collection (Borum, 1996), when structured clinical interview procedures are used, and when clinical decision-making processes are anchored with base rate information (Harris, Rice & Quincey, 1993).

Further, clinical judgement appears to be both more appropriate and more accurate than statistical approaches in certain specific situations. Meehl (1959) argued that the clinician performs a range of unique and indispensable functions, suggesting that clinical
judgement was essential, for example, where data resisted explication for statistical prediction and where explicit prediction rules were yet to be formulated. Meehl (1973) described several other situations that favoured the clinician — when tasks were open ended and not specified in terms of a criterion dimension, when judgements were mediated by theory and predictive processes were therefore not straightforward, and when there was insufficient time to make decisions based on statistical procedures.

In some circumstances statistical models may exist but the presence of particular factors may result in the functional limits of the model being exceeded (Kleinmuntz, 1990, 1991). Meehl (1954) termed this "the broken leg case" — describing a situation where a rare event (e.g., a broken leg) invalidated a previously valid predictive equation (e.g., concerning the probability "Professor X" would go to the cinema on a particular Friday night). In such circumstances the clinician could appropriately countermand decisions arrived at by statistical methods, (although Sawyer (1966) found no evidence of this and Grove and Meehl (1996) observed that clinicians' inconsistencies in applying such decisions actually resulted in increased error rates). Other circumstances where the clinical approach may be preferred include during the earliest phases of client contact when subtleties of behaviour and verbal and non-verbal cues frequently direct hypothesis formation (Sawyer, 1966) and when significant data are described by scores that might otherwise be lost in data aggregation (Dana, Cocking & Dana, 1970). Groth-Marnat (1997) pointed out that interviews are often the only way to obtain information about certain behaviours and about unique aspects of individual histories that tests and statistical formulae cannot measure, suggesting also that it is not likely that statistical prediction will ever totally replace clinical judgement.
1.1.4. Conclusions

There are circumstances where clinical and combined approaches may be indispensable, for example, where the data is resistant to explication suitable for use in statistical approaches, where actuarial data is absent or incomplete, or where unusual events affect with the prediction process. However, where statistical approaches to making judgements or predictions exist, they have been repeatedly observed to be equal to, or better than, clinical approaches, irrespective of the criterion variable, the types of professionals or the level of their training. Many clinicians are uncomfortable with such findings because they appear to constitute direct challenges to them in terms of their clinical abilities and their professional relevance. However, some clinicians are able to accept the challenges tacit in these findings. These clinicians are willing to examine where the sources of error in their clinical judgements may lie and thereafter, are able to minimise the sources of error within their purview.

1.2. Sources of Error in Clinical Judgements

1.2.1. Introduction

Because both statistical and clinical approaches to making judgements inevitably lead to at least some level of judgement error, it is important that clinicians understand the reasons for the apparent strengths of statistical approaches and the relative weaknesses of clinical approaches. Having achieved these understandings, theoretically, practitioners should be better able to select the best methods for data collection and
integration, and may be better equipped to control for common errors that impact on the accuracy of judgements. These factors assume particular significance because "...despite 66 years of consistent research findings in favor of the actuarial method, most professionals continue to use a ... clinical judgement approach when making predictive decisions..." (Grove and Meehl, 1996, p. 299).

1.2.2. Reliability

Statistical approaches to prediction are not necessarily spectacularly accurate, but clinical judgements are often so inaccurate that even very crude statistical tools outperform them. This was well demonstrated by Lasky et al. (1959) who observed that the measured thickness of a patient's file was as good a predictor of a client's relapse and readmission to psychiatric care as the opinions of 21 different psychiatric staff. In fact, Dawes and Corrigan (1974) posited that statistical approaches were superior even when regression weights were arbitrary, provided that they were non-zero, positive and linear, a position supported by Nisbett and Ross (1980) who argued that human judges were worse than almost any regression equations.

These observations suggest that the relative accuracy of statistical approach to making judgements can be primarily explained in terms of their reliability. The low reliability of clinical judgements has been observed in many studies (Faust, 1986). Even in cases where the countermanding of statistical judgements appears to be appropriate, the unreliability of clinicians' judgements is so great that having the opportunity to countermand obvious judgement errors actually increases total error levels (Sawyer, 1966). Indeed, the relative unreliability of clinical judgements was highlighted by
Goldberg (1991) who observed that mechanically applying a model based on a clinician's judgement was often more accurate over time than the clinician's repeated judgements. He explained this by contrasting the perfect test-retest reliability of the statistical approach with the relative unreliability of the clinical approach whereby repeated judgements using the "same predictor configurations [were] often different" (p. 179).

1.2.1.1. Theoretical frameworks. Lack of reliability is reflected in inconsistencies for a given clinician over time, but also in inconsistencies in judgements between clinicians. This sometimes reflects differences in theoretical perspectives— "behaviourists", for example, typically focus attention on situational determinants of behaviour, whereas "counselling psychologists" frequently view social-interactional factors as most salient, "humanistic therapists" focus on individuals' subjective views and experiences and "psychoanalysts" seek most to understand conscious and unconscious intra-psychic processes (Korchin & Schulberg, 1981). Nisbett and Ross (1980) argued these theoretical frameworks provided "self-serving" motivations that mediate the clinician behaviours and eventuate in the biased collection, storage or retrieval of information about the client. Similarly, Goldfried (1999) argued that theoretical schemas were obstacles to efficient clinical work, encouraging information distortion, inaccurate gap filling and selective recall of information. Therefore it may be that theoretical orientations provide clinicians with sets of expectations that are subsequently confirmed by clients in the manner of self-fulfilling prophecies.

Houts (1984) suggested that lowered reliabilities that reflect differences in theoretical bases could be addressed by adequately training clinicians to be more flexible and more eclectic. Unfortunately, however, low reliabilities may also reflect other
factors that are not so easily addressed such as boredom, fatigue, memory failure or clinicians' attentional limitations (Einhorn, 1986), as well as laziness and ignorance.

1.2.1.2. Cognitive heuristics and other sources of bias. In describing successful strategies to use in making judgements, Dawes and Corrigan (1974) stated, "...the whole trick is to know what variables to look at and then to know how to add" (p.105) but it may be more important to know how to look at the variables because errors in judgement typically reflect the prejudices and prejudices that influence how clinicians perceive the available data (Garb, 1998). Research has found that people rarely make judgements relying on the rules of probability and statistics alone, preferring instead to use heuristics to reduce the time and effort necessary to make judgements (e.g., Tversky & Kahneman, 1974; 1982a). However, although heuristics are sometimes accurate and economical, they can also lead directly to biases and errors of judgement (Nisbett & Ross, 1980).

Perhaps the most comprehensive analysis of sources of error in the collection, recollection and integration of data in the context of making clinical judgements was conducted by Garb (1998). Garb argued that many errors occurred because of biases in data collection, reporting that bias in psychopathological and personological descriptions and in diagnosis had been reliably validated with respect to client race, gender, sex role and age. He also posited the existence of bias to over-perceive pathology which was built in by the training and experiences of the clinician (see also Gambrill, 1990; Lopez, 1989; Shemberg & Doherty, 1999). Clinicians have also been observed to be biased by labelling effects, anchoring and adjustment biases (Plous, 1993) when they are aware of the diagnostic decisions of others (Langer & Abelson, 1974), and by context effects (Rosenham, 1973).
Garb (1998) also argued that errors of judgement could be the result of using faulty and inappropriate strategies in information processing and integration. He posited that clinicians tended to be affected by primacy and recency effects (where the first and final information collected assumed disproportionate salience) that constitute availability biases where the information that is most readily accessible or most easily recalled appears to be more dominant and is therefore perceived as more probable (Taylor, 1982). In addition, clinicians are often unduly influenced by vivid and detailed information, the ease with which specific examples are drawn to mind, the ease of visualisation of particular situations or events (Plous, 1993) and by patterns of selective exposure (Dawes, 1994).

Clinicians also show strong confirmatory biases in seeking, using and remembering information that supports their hypotheses, and minimising information that fails to support, or actually disconfirms, their hypotheses. Common types involve the perception of illusory correlations and the mis-estimation of covariance, a tendency to recall instances where two phenomena have covared rather than to recall those circumstances where they have not, (Arkcs, 1981; Garb, 1998). Similar biases are noted by Plous (1993) who pointed out that clinicians do not estimate probabilities and risks without bias, particularly when issues involve conditional probability or compound events, and that clinicians were often influenced by the valency of outcomes, perceiving preferred outcomes as more probable than negative outcomes.

The use of representativeness heuristics also results in many errors of clinical judgement. Representativeness involves judging the probability of an uncertain event A by judging the degree to which it is similar to B in essential properties in the parent population (Kahneman & Tversky, 1973; 1982). Unfortunately, however, an estimate of
the similarity between events or samples and the population does not indicate anything specific about its probability (Dawes, 1994), and use of the heuristic may lead to the assignation of high probabilities to detailed prototypical combinations of characteristics and the tendency to assign lower probabilities to single characteristics or events (Snyder, 2000). For example, Tversky and Kahneman (1982b) illustrated the representativeness bias in the form of a conjunction fallacy in a study where respondents were provided with a description of Linda, a 31-year-old single, philosophy major who was interested in issues of discrimination and social justice, and had participated in antinuclear demonstrations. In a forced choice situation, 90% of people defied the rules of probability stating that it was more probable that “Linda” was a bank teller who was active in the feminist movement than a bank teller (with no further elaboration), the probability of which was necessarily higher than, or at least equal to, the probability of the alternate option.

A related source of judgement errors is apparent when clinicians fail to consider relevant base rates and normative data, particularly where the criterion event is low frequency and where the frequency of false identifications associated with a test or diagnostic sign exceeds the frequency of the condition (Faust, 1984; 1986). Related to this heuristic is the false belief that even in small samples the sampling distribution will mirror the population distribution closely (that is, they will be representative). Tversky and Kahneman (1971) called this “belief in the law of small numbers” arguing its use resulted in clinicians experiencing unwarranted confidence in the validity of conclusions based on small samples despite the fact that sampling error increased as sample size decreased.
1.2.1.3. Limits to information processing abilities. Even when heuristics are not used, other problems may develop because the demands of information integration exceed the limits of human information processing capacity (Kleinmuntz, 1990). This is particularly the case in relation to the development of "multidimensional causal formulations" (Snyder, 2000, p. 58). Faust, (1984) described cognitive limitations as "almost certainly the most basic, most prevalent, and most troublesome source of human judgement difficulties" (p. 105), suggesting that many of the bad judgement habits that are described above may in fact be secondary products of cognitive limitations. These limits have been highlighted in an expanding body of research into the relationship between the amount of information available and judgement accuracy, and into human abilities in performance on multiple-cue, complex judgement tasks. Faust (1984) and Sawyer (1966) have indicated that individuals are apparently incapable of differentially weighting large quantities of information and that, therefore, increasing the amount of information available does not necessarily increase judgement accuracy. Ironically, however, many of the defenders of clinical judgement dismiss much of the research into judgement as lacking ecological validity, suggesting that real clinical data is so complex only a human could possibly process it (Karon, 2000).

1.2.1.4. Over-reliance on the clinical interview. An additional impediment to accurate decision-making may be the continued emphasis on the largely unstructured clinical interview as the primary source of information from which to generate and explore hypotheses, and to draw conclusions. A considerable body of research indicates that the reliability and validity of predictions made on the basis of unstructured interview data alone are relatively low. Further, some theorists argue that the use of information
from the clinical interview in subjective case formulation can actually reduce the accuracy of diagnoses below that obtained using replicable, standardised and manualised assessment tools such as structured interviews (Wilson, 1996). Darley and Fazio (1980) suggested that a hypothesis confirmation bias and the presence of self-fulfilling prophecies contributed directly to the low levels of predictive accuracy in interview situations.

1.2.3. Conclusion

A range of factors is thought to contribute to the limited predictive accuracy of clinical judgement, primarily by impacting on the reliability of judgement making. Factors that appear to be relevant to the low reliability of clinical judgements include the influence of personal biases in selecting, collecting and integrating data, the use of inappropriate heuristics, the use of appropriate heuristics and problem solving strategies in inappropriate contexts, (particularly the availability, confirmatory and representativeness heuristics), the failure to properly regard base rate information, the tendency to be over-reliant on theoretical bases for explanations, the over-reliance on clinical interviews for data collection and hypothesis development, and the limited nature of human cognitive information-processing capacities. Given these diverse sources of error, the ethical clinician must be vigilant for them. He or she is obliged to attempt to maximise the accuracy of any and all of the clinical judgements made, and should also consider if statistical approaches may be more suitable to the circumstances.
1.3. Improving Clinical Judgements

1.3.1. Introduction

The first section of this chapter highlighted the relative inaccuracy of clinical methods of making judgements and the second section outlined the presumed sources of this level of error. This final section addresses the issue of what can be done to minimise error levels, given that clinical approaches to making judgements continue to dominate in most domains of psychological practice, despite the accrued evidence that indicates the limitations of the approach.

1.3.2. Expertise, Experience and Training

Garb (1998) reported that research into the role of clinician expertise in clinical judgements has led to a consistent conclusion that experienced and “expert” clinicians generally failed to outperform other clinicians in judgements based on psychological test information. The same was true when decisions made by psychologists were compared to those made by graduate students, although advanced graduate students were observed to outperform beginning students. However, trained clinicians were generally more likely to make valid judgements than untrained lay judges although this varied somewhat with the type of task and the nature of the information – in decisions based on relatively structured materials, trained clinicians performed significantly better, but in interpreting projective tests, no differences were observed. Training and experience have also been found to be relevant to confidence ratings about decision accuracy with experienced
clinicians being more able to judge the level of accuracy of their decisions than less experienced clinicians.

Garb (1998) argued that these unexpected results reflected the difficulty clinicians have in learning from experience because feedback on the accuracy of decisions is typically inadequate, nonexistent, biased, and/or inaccurate and misleading. He posited that it is critical that the clinician be skilled at evaluating the quality and relevance of feedback, and that he or she be willing to rely on his or her training, available research findings and/or available mechanical and statistical decision-making aids when no feedback is available. This may be an appropriate strategy to use in all cases given that a range of clinician biases may maintain an "illusion of learning from experience" (Dawes, 1994, p. 122).

It therefore appears that the amount and quality of training is relevant to the potential to control for error, although subsequent levels of experience are of relatively little relevance. Consequently, Garb (1998) recommended that clinician accuracy could be enhanced by vetted graduate student selection, by specific training in judgement research in graduate school curricula, by introducing licensing and accreditation requirements that are relevant to quality clinical practice, and by the development and use of many more instructional aids. Similarly, Nisbett and Ross (1980) argued that education programs needed to be revised in order to teach people specifically about inferential processes and the contrasts between clinical judgement strategies and other potential approaches.

1.3.3. Using Quality Instruments and Procedures
It is generally taken for granted that reliability and validity are the cornerstones of good tests and that well-validated, reliable psychological tests and behavioural assessment methods are often essential in making accurate judgements. These are typically anchored in clearly specified test norms and actuarial base rate data (Garb, 1994; Wedding & Faust, 1989). Garb (1998) suggested that the use of quality instruments could be further complemented by the use of cognitive debiasing strategies (e.g., considering situational factors as well as internal idiographic factors) and by decreasing the clinician's reliance on memory by better documenting relevant data.

In addition, Garb (1994) and Wedding and Faust (1989) posited that clinicians should use structured or semi-structured approaches in interviewing in order to control for selectivity in data collection. They suggested that diagnostic decisions should be carefully linked to formal diagnostic criteria and that feedback on the accuracy of judgements should always be sought as a matter of course. Further, they argued that clinicians must be familiar with relevant and current theoretical and empirical literature to inform data collection strategies and to provide base rate data with which comparisons may be made.

1.3.4. Being Selective

When clinicians use cognitive shortcuts in order to make tasks more manageable, they often also increase rates of judgement error. Nisbett and Ross (1980) pointed out that not all decisions are of equal importance in terms of consequence, and that statistical and clinical approaches to making judgements generally differ in terms of the time and effort required. Therefore they suggested that the best empirically-validated, normative
strategies (i.e., using statistical methods and incorporating actuarial data) should be used when important judgements were required, regardless of the time and effort required, whereas less consequential decisions may appropriately be guided by intuitive strategies and cognitive heuristics.

1.3.5. Wariness About Over-reliance on Theories

Rabinowitz and Efron (1997) argued that clinicians collect and evaluate data selectively, choosing a preferred theory that appears to explain the circumstances and then actively seeking specific data that confirms that theory. After collecting a certain amount of supporting information, they posit, many clinicians become convinced that the theory they first selected was indeed the best available and they therefore often fail to consider other theories that could account for the symptoms observed. In order to control for such biases in the diagnostic process Rabinowitz and Efron suggested that clinicians should be guided by the following questions: (a) are the data supporting my emergent diagnosis reliable and valid? (b) are there other relevant data that should be collected? (c) are there sufficient data to arrive at a confident diagnosis? (d) has the emergent diagnosis been unduly influenced by data other than the observed and reported behaviour of the client? and (e) is the emergent diagnosis the only one that adequately accounts for the data? They argue that by using this approach clinicians are more likely to collect the comprehensive and relevant data required in arriving at a reasonable diagnosis and it is an approach that should assist in any clinical decision making context by controlling for biased impressions and faulty reasoning, and by leading the clinician to consider a range of possible alternate diagnoses or explanations.
Turk, Salovey and Prentice (1988) and Arnoult and Anderson (1988) argued that bias could be reduced by considering multiple explanatory hypotheses for the observed behaviours. Turk, Salovey and Prentice proposed that the clinician should evaluate each potential explanation for base rate likelihood, but also in terms of the availability of suitable treatment methods, the seriousness of consequences if treatments fail, and the relative costs of treating and not treating. They also suggested that after selecting an explanatory model for a client’s behaviour, clinicians should justify their selection while actively seeking disconfirming evidence. Faust (1986) also argued that the clinician was well advised to remain conservative in his or her use of data in making judgements, collecting more if judgements were not immediately clear.

1.3.6. The Scientist-Practitioner Approach

Improving the quality of clinical judgements requires the clinician to operate as a scientist-practitioner in the assumption that attention to correct scientific technique provides optimal control of error levels. Thus, Garb (1998) argued that clinicians must attend to the available empirical evidence rather than to prior clinical experiences and must actively seek out and overcome cognitive biases. Further, he recommended that the clinician must be wary of making judgements in contexts where prediction is recognised as difficult, such as in the assessment of covert phenomena such as suicidality, violent intent and causation. He also argued the clinician should attempt to be systematic, in order to enhance reliability, and comprehensive, in order to enhance validity, in collecting and evaluating information.

In selecting and implementing treatments, practitioners should attend to empirically
validated approaches whenever possible, although it is noted that empirically validated
treatments are not recognised for all clinical syndromes and little efficacy research has
been done with respect to situations where comorbidities exist. Empirically validated
treatments may be classified as "probably efficacious" or as "well-established in
efficacy" (Division 12 Task Force, 1995, pp. 21-22). Probably efficacious treatments are
those where "the therapy caused a degree of change beyond the amount of change caused
by such factors as the mere passage of time or the effects of repeated testing" and
treatments that are well-established in efficacy are those where "therapy caused a degree
of change beyond the amount of change caused by factors common to all therapies"
(Borkevic & Castonguay, 1998, p. 137) for that particular combination of problem,
setting, time and persons.

However, Seligman (1995) described an alternative approach, arguing that
randomised controlled trials were not the only appropriate tests of therapy quality and
suggesting that "effectiveness" studies of how patients fare in the field also yielded
"useful and credible 'empirical validation' of psychotherapy and medication" (p. 266).
He posited that efficacy studies ignore the facts that in real applications (a) therapies are
seldom of fixed duration, (b) they tend to be self-correcting (if one technique fails
another is trialed), (c) they allow for patient self-selection by therapy shopping, (d) they
include patients with multiple problems, and (e) they are aimed at providing for
improvements in generalised functioning rather than specific symptom amelioration.
Effectiveness studies, such as the 1995 Consumer Reports (1995) survey, he suggested,
do not ignore these facts. Therefore, the ethical clinician needs to consider not only the
availability of empirically validated treatments, but also any available evidence of prior
consumer satisfaction.
1.4. Conclusion

There are no magic wands or quick solutions that provide for an improvement in the accuracy of clinical judgements. Some approaches to minimising errors require that the clinician closely scrutinise hidden elements of his or her decision-making processes, and many potential solutions to the problem tend to make the judgement task less manageable within the practical constraints of clinical practice. However, what is clear is that advanced-level training programs for clinicians are valuable, particularly where they contain education about decision-making processes and pitfalls. It is also obvious that an awareness of potential sources of judgement error and of the strategies that may be used to control for them enables clinicians to make better judgements. This is greatly assisted by knowledge of relevant and current empirical research, an awareness of relevant base rates with which comparisons may be made and by the use of appropriate reliable and valid instruments in data collection. Finally, it has been suggested that the clinician needs to consider practicalities – rigorously reviewing his or her decision-making processes and identifying what he or she evaluates to be the most important contexts in which to use the most careful of decision making processes, lest it all becomes unmanageable. In using the best available methods to arrive at decisions and to reduce judgement errors, the clinician is also acting in accord with the ethical mandates of the profession.

1.5. The Chapters Ahead
The next four chapters focus on cases drawn from the author’s clinical placement program. These were selected in order to illustrate how a consideration of some of the principles elaborated above can result in improvements in the accuracy of judgements in clinical practice for both assessment and therapy planning and implementation purposes.

Chapter Two focuses on the neuropsychological assessment of a 28 year-old man with a seven-year history of schizophrenia, who was intending a return to tertiary study. This case highlights the importance of the *scientist practitioner* approach. It demonstrates the importance of using *research literature* to define the parameters of the testing program and the imperative that assessment instruments be *standardised, reliable and valid*. It also provides an example of the ways in which clinical judgement may be used to integrate test results to address key referral questions, for which no actuarial approach presently exist.

Chapter Three reports on issues related to the selection of treatment approaches and the process of therapy for a 27 year-old man who presented to a community clinic with symptoms of posttraumatic stress disorder. The main purpose in reporting this case study is to demonstrate how reviewing information on *empirically validated treatments* can help the clinician in providing the best possible treatments for clients within the constraints of an ever more stressed and demanding healthcare system. It does so by enabling the clinician to *be selective*, using his or her time to maximum benefit by *streamlining treatment selection* and thereafter by *guiding treatment implementation*.

Chapter Four focuses on aspects of the family of an 11 year-old boy who was referred to a Child and Adolescent Mental Health Service because of aggressive, impulsive, oppositional and inattentive behaviours. This case was chosen to illustrate how a *clinician’s flexibility* and willingness to consider *alternate theoretical and
conceputal frameworks can be an asset to clinical assessment and treatment processes. It also highlights the importance of systematic and comprehensive approaches to assessment through the use of multiple informants. In addition, it draws attention to an approach that encourages the clinician to explicitly partition information, hypotheses and speculations, and thereafter, to simultaneously consider multiple explanatory hypotheses.

The case reported in Chapter Five entails the use of a structured clinical interview schedule to conduct systematic, comprehensive and replicable assessments relative to defined diagnostic criteria sets. It also illustrates the use of an empirically validated, manualised treatment program. I argue that the use of such tools, where they exist, ensures that the clinician has fulfilled his or her ethical responsibilities to use the best quality assessment approaches and to provide the highest quality treatment programs, available in that particular context. I also argue that after the initial learning process, the use of structured interview schedules in assessments and empirically supported clinical manuals for guiding treatments potentially results in an economy of time and effort for the clinician.

Chapter Six comprises a conclusion to the thesis. In this final chapter the themes and issues that were raised in Chapter One are explicitly linked, where possible, to the case studies in Chapters Two to Five.
CHAPTER TWO:
THE NEUROPSYCHOLOGICAL ASSESSMENT OF A YOUNG MAN
WITH SCHIZOPHRENIA

2.1. Introduction

This chapter focuses on the neuropsychological assessment of a 28 year-old man with a seven-year history of schizophrenia. This case highlights the importance of the scientist-practitioner approach in the use of research literature to define the parameters of the assessment and in the use of standardised, reliable and valid instruments for data collection. It also provides an example where clinical judgement is used to integrate test scores to address specific referral questions in an area where no suitable algorithms exist or are likely to exist.

The chapter contains four main sections. In the first, the empirical research into the cognitive impairments most commonly associated with schizophrenia, their functional impacts and their response to medication is described. This is followed by an overview of the key psychometric properties of a range of instruments that were used in collecting data for the purposes of addressing the key referral questions. A third section contains an edited copy of the neuropsychological report that was generated for the young man. The final section contains a reflection on the clinical decision-making processes central to the assessment process, and the cognitive deficits that were observed are compared to those that were expected on the basis of the literature that was reviewed.
2.2. Cognitive Deficits in Schizophrenia – Theory

2.2.1. Specific Deficits

The term “schizophrenia” describes a heterogeneous group of psychopathologies that impact on the psychosocial functioning of affected individuals differentially. It is likely that more than one aetiological factor is implicated in what is eventually described as a single common pathway to psychosis, and ample evidence has accrued that indicates that both genetically transmitted biological factors and socioenvironmental factors are directly involved (Kopolowicz & Liberman, 1998). The course of schizophrenia is variable, particularly if high quality and continuous treatments are readily available. One extreme course involves one or more psychotic episodes that are followed by a fairly rapid return to premorbid functioning and negligible long term impairment, whereas the other extreme involves a treatment resistant presentation in which affected individuals experience repeated, prolonged psychotic episodes and substantial disabilities throughout their lives. An intermediate form, however, is the most common. In such presentations the individual experiences episodic relapses punctuated by periods of full or partial remission and widely varying degrees of functional impairment (Kopolowicz & Liberman, 1998).

Schizophrenia is a syndrome that primarily affects higher cognitive, perceptual, affective and language functioning, but the symptoms of schizophrenia are common to other disorders (McGrath, 1996) and no single symptom has been identified that is specific to schizophrenia (American Psychiatric Association, 2000). However, it is generally accepted that cognitive impairments are among the fundamental features of
schizophrenia. Impairments occur across a broad range of skill domains, often persisting from the time of symptom onset during psychotic episodes but also during the periods of apparent remission between episodes (Riley et al., 2000).

Patients with schizophrenia may display deficits in tasks involving memory, attention, executive functioning, language, motor skills and spatial ability, which may in turn result in social, educational or occupational dysfunction. Individuals with schizophrenia may not be able to complete their education or be able to hold a job (or may be employed only at a low level in the workforce hierarchy), and many individuals with schizophrenia do not marry, most having relatively limited social contacts (American Psychiatric Association, 2000). The current literature suggests that these relatively stable deficits emerge at the onset of diagnosable schizophrenia and are independent of psychotic symptoms (Gourovitch & Goldberg, 1996). However, Gourovitch and Goldberg argue that there is no agreed skill deficit profile and there is no consensus about whether deficits reflect a generalised problem of “cognitive inefficiency, imprecision and psychomotor slowing” (pp. 74-75) or highly predictable and selective deficits.

A range of specific skill deficiencies is reported in the literature. Having conducted a meta-analytic review, Heinrichs and Zakzanis (1998), for example, reported that schizophrenia was reliably associated with impairments in attention, executive function, motor and tactile dexterity, spatial abilities, affect recognition, intellectual ability, language functions, and memory. They reported that the strongest effect sizes were associated with global verbal memory, bilateral motor skills, performance IQ, continuous performance, and word fluency. However, they also made the point that, for some patients, neuropsychological changes constituted only very mild declines in functioning
relative to premorbid potential, and that individuals with schizophrenia may display levels of functioning that overlap those of many healthy individuals. Others, they suggest, display sufficiently severe cognitive and neuropsychological abnormalities to distinguish them from healthy individuals in almost all respects. A number of key deficits in attentional processes, memory functioning, executive control and language are described below.

2.2.1.1. Attentional deficits. Attentional deficits are commonly observed in schizophrenia and are also common in individual’s self-reports (McGhie & Chapman, 1961). For example, individuals with schizophrenia have been found to perform less well than controls on immediate serial recall tasks, with and without distractors (Oltmans & Neale, 1975; Weiss, Vrtusni, & Simpson, 1988). Deficits in simple reaction time tasks have also been reported, with some evidence suggesting this reflects difficulty with cross-modal cuing and with benefiting from regular or preparatory warning signals (Nuechterlein & Dawson, 1984). Individuals with schizophrenia often have difficulty processing several stimuli simultaneously (Gourovitch & Goldberg, 1996) and with stimulus identification in backward masking tasks (Brass, Saccuzzo, & Geyer, 1991). Individuals with schizophrenia also often perform less well on tasks measuring vigilance (readiness to detect small random changes in the environment) (Gourovitch & Goldberg, 1996) and greater difficulty in disengaging and redirecting focus from the right to the left visual field (Posner, Early, Reiman, Pardo, & Dhawan, 1988).

2.2.1.2. Deficits in executive functioning. Deficits in executive functions are difficult to quantify with standard psychometric techniques, but they are tapped in some
degree by tasks involving problem solving, set shifting, and response to feedback
(measured by the degree of perseveration in the face of contrary feedback) (Stuss et al,
1983). Research has demonstrated that individuals with schizophrenia often have
difficulty in *attaining new concepts and hypothesis testing* (Goldberg, Karson, Leleszi,
& Weinberger, 1988) and also tend to perform poorly on tests of *verbal fluency and design
fluency* (Kolb & Whishaw, 1983). In addition, *behavioural deficits* and problems such as
*poor planning ability, impaired social judgement and insight, and lack of initiative* are
common to individuals with schizophrenia (Gourovitich & Goldberg, 1996). This is true
also of individuals experiencing their first episodes of psychosis as evidenced by specific
impairments in tasks requiring the ability to *form and initiate a strategy, to inhibit
prepotent responses, and to shift cognitive set* (Riley et al., 1999).

### 2.2.1.3. Memory deficits.

Deficits have been observed in all stages of memory
function from initial encoding to consolidation, retrieval and recognition (Saykin et al,
1991), although it remains unclear whether this reflects memory specific factors or the
consequences of other problems in attention and executive control (Gourovitich &
Goldberg, 1996). Individuals with schizophrenia often display a *slower rate of learning*
(Goldberg, Berman, & Weinberger, 1989) and the *recall of stories and abstract designs* is
less accurate (Kolb & Whishaw, 1983). In addition, individuals with schizophrenia
frequently obtain significantly *lower scores on the Wechsler Memory Scale* than might be
expected on the basis of their IQ (Gold, Randolph, Carpenter, Goldberg, & Weinberger,
1992a). Other memory difficulties include lowered performances in *recall ability, failure
to use semantic cues in recall, poor recognition memory, poor sensitivity to frequency
information* and tendencies to make *prior-list and non-list intrusions* (Gold, Randolph,
Deficits have been observed to be highly specific and it is thought that they may vary throughout the course of the disorder. Riley et al. (2000), for example, observed that memory deficits occurred in tasks assessing verbal learning and tests of delayed non-verbal memory, whereas immediate and delayed recall and verbal recognition skills were largely intact in individuals experiencing their first episodes of psychosis. They also observed that these individuals did not differ from controls in tests of immediate and delayed recall from verbal memory, recognition memory, immediate non-verbal memory and several other measures, suggesting that later impairments in these areas reflect problems that develop after the onset of schizophrenia.

2.2.1.4. Deficits in language. Language difficulties observed in individuals with schizophrenia include a lack of executive planning and editing of expressive language and an inability to inhibit inappropriate associations (Gourovitch & Goldberg, 1996). These are indicated by the perseveration of words generally and of prior semantic and phonemic properties of words specifically (Barr, Bilder, Goldberg, & Kaplan, 1990), but also by abnormalities in inhibiting irrelevant and facilitating relevant activated units within the semantic network Bullen & Hemsley, 1987). Individuals with schizophrenia are also likely to have difficulty in using context to mediate word meaning (Cohen & Servan-Schreiber, 1992).

2.2.2. Cognitive Deficits and Functional Outcome

The severity of cognitive dysfunction is widely regarded as an important predictor
of social and occupational outcome in individuals with schizophrenia. Green, Kern, Braff and Mintz (2000), for example, conducted a meta-analysis of 37 studies that examined the relationship between neuropsychological deficits and functional outcome with respect to community outcome, social problem solving and psychosocial skill acquisition in individuals with schizophrenia. They reported that studies that used global or composite measures of neuropsychological skills indicated that between 20% and 60% of the variance in functional outcome could be explained by neuropsychological factors, and that the strongest relationships were observed between adequate functioning in the community and executive functioning, secondary verbal memory and verbal fluency.

2.2.3. Antipsychotic Medications, Cognitive Functioning and Functional Outcome

In general terms, neuroleptics typically improve neuropsychological functioning in patients with schizophrenia, but the same drugs may impair information processing in healthy volunteers – probably because an improvement in overall symptomaticity in the individual with schizophrenia compensates for the more generalised drug-induced impairment (King & Green, 1996).

However, the relationships between medication and schizophrenia are often considerably more complex. Gourovitch and Goldberg (1996), for example, argued that traditional neuroleptics may assist with tasks requiring sustained attention, and with visuomotor problem solving and that the deleterious effects of typical antipsychotic medications on cognitive performance were fairly minimal. However they noted that motor functions may be retarded due to dopamine blocking and that anticholinergic medications, taken to control the side effects of typical antipsychotics, impair both
learning and memory (see also Green & Nuechterlein, 1999). Sharma (1999) also posited that typical antipsychotic drugs had no consistent deleterious effects and that sometimes their use appeared to result in improvements in cognitive function, although excessive sedation was often a problem.

In contrast, in a meta-analysis of 15 studies Keefe et al, (1999) concluded that there was general cognitive enhancement associated with atypical antipsychotics, and that this was superior to the effects of typical antipsychotics alone. However, they found that symptoms were not equally responsive to atypical antipsychotics and they reported that outcomes varied between specific drugs – for example motor skills and verbal fluency were observed to particularly improve with clozapine, and attention and executive function were observed to respond better to risperidone. Sharma (1999) also argued that the functional impact of atypical antipsychotic medications vary with the specific medication. Sharma also suggested that as newer pharmaceuticals that more effectively target specific cognitive deficits are developed, the social functioning and quality of life of patients with schizophrenia can be expected to improve significantly.

2.2.4. Summary

Deficits and impairments in a large number of specific cognitive skills have been observed in individuals with schizophrenia. These are largely independent of the psychotic symptomatology for which schizophrenia is most often recognised, but they have very substantial impacts on individuals’ functional outcomes. Particular difficulties have been observed in levels of attention and vigilance, which are observed to impact on capacities to select, encode and mentally process materials, and in executive functioning
which is typically affected in terms of multiple limitations to skills in developing strategies to solve problems and in terms of verbal and design fluency. Memory deficits appear to be more selective, the areas of greatest difficulty being in verbal learning, perhaps because of problems in the encoding of semantic information, and several other language deficits are apparent.

Research evidence supports the proposition that functional outcome for individuals with schizophrenia is closely linked to levels of cognitive functioning, and that those individuals who demonstrate severe cognitive deficits, particularly in attentional processes, executive functioning, working memory and verbal fluency, are the worst affected. The impact of medications is varied. The strongest deleterious effects are associated with anticholinergic drugs (taken to control the side effects of typical antipsychotics) that are thought to impair memory and learning, although the sedative properties of typical antipsychotics may also be a significant problem to some individuals. Otherwise, typical antipsychotics generally reduce the positive symptoms of schizophrenia and are not thought to negatively impact on cognitive functioning. In contrast, atypical antipsychotics are thought to have several specific positive impacts on neuropsychological skills, although these appear to vary significantly between specific medications.

2.3. Instruments for Data Collection

As noted earlier, it was considered important to review the existing research literature in order to anticipate issues that might arise during assessments and in order to identify broad theoretical and practical assessment parameters. In the case that follows,
this information was also used to identify test instruments that had previously proved useful in testing for the neuropsychological impact of schizophrenia and which displayed sound psychometric properties.

All of the instruments that were selected for use have been widely used in clinical and research settings, and their psychometric properties have been well explored. The instruments used in this assessment have been generally observed to possess superior reliabilities and validities. In addition, in most cases they have been administered to large populations to provide normative data against which the scores of the individual may be compared. These basic characteristics of the instruments used are described below.

2.4. Cognitive Deficits in Schizophrenia – Case Study

In this section, an edited version of a neuropsychological report is presented. It provides a comprehensive profile of the neuropsychological skills of a premorbidly high-functioning young man with a seven-year history of schizophrenia and a longer period of psychosocial decline. The reader will observe that this individual displayed many of the cognitive deficits typically associated with schizophrenia, and theoretically expected on the basis of the literature.

2.4.1. Background and Reason for Referral

John Doe was a 28-year-old man who was first diagnosed with schizophrenia in 1995 following an extended period of psychosocial and academic decline. John was referred for a neuropsychological assessment by a psychiatric registrar at a metropolitan
Community Mental Health Clinic for comment on John’s plans to return to formal tertiary education in 2002. Specific concerns were expressed about his ability to concentrate and to cope with other demands in an academic environment.

2.4.2. Personal History

The following data were collected from John’s self-report, reports provided by his mother, his CMHC case manager and hospital discharge records.

John is the second of five children. He was born without complications after an uneventful pregnancy. His developmental history was also unremarkable with standard progression through developmental milestones. John was a happy and generally successful child at primary school and in his early secondary school years, although it was reported that other students sometimes teased him. However, from the age of 15 John experienced a period of declining achievement and social withdrawal, accompanied by feelings of failure. A decision was made to change secondary schools, but few improvements resulted in the new school setting.

After completing year 12, John attended university studying mathematics and chemistry. He progressed well academically for the first year but made few friends. John became ill in 1994, failing several subjects and eventually deferring. The symptoms of his illness impacted on his ability to return to study and he became increasingly socially isolated. Between 1994 and 2001 John attempted unsuccessfully to return to university studies four times but retained an aim of completing his education and finding work in scientific research.

Sources reported a significant improvement in John’s concentration, energy and
mood, and in social skills, over the three years since beginning on Clozaril. John also reported that he felt he was ready to return to university and had therefore enrolled in several units. John’s case manager and mother concurred with his opinion that his chances of success were higher at that time than they had been previously.

2.4.3. Psychiatric History

John first presented to the public mental health system in late 1992 with paranoid delusions and catatonic behaviour and he became ill again in early 1994 when a formal diagnosis of Schizophreniform Disorder was made. He was managed by a Community Assessment and Treatment team during both of these episodes. John relapsed again in March 1995 and was admitted to the psychiatric ward of a major metropolitan hospital for approximately 3 weeks. A diagnosis of Schizophrenia was made at this time. John was hospitalised for a further week in April 1996.

Since the second admission, John has been regularly compliant with medications, experiencing only relatively minor positive symptoms of his illness. He has been taking Clozaril daily since January 1999 and is presently taking 300 mg daily. Since beginning Clozaril, informants have observed a steady improvement in John’s general functioning, although he reported that he is still often highly anxious, becoming acopic and amotivated during periods of stress.

2.4.4. Functional Concerns

John is reported to have had a high level of premorbid functioning and he prizes
academic competence and intellectual pursuits. He hopes to complete a double major in chemistry and to undertake subsequent post-graduate studies having previously completed nearly two and a half years of the three-year undergraduate degree. John complained that he felt he had lost much of the mental sharpness and acuity that he previously experienced. He also reported cognitive problems including difficulties in tasks requiring divided attention, problems understanding certain ideas and class materials, inability to effectively organise his work and other commitments when under pressure, and problems with copying visual materials/visual scanning tasks.

Anxiety was also a significant issue for John who reported he was often anxious that he would not understand the work and would become “bored”. He stated that he became anxious when he could not understand concepts and procedures, and was fearful that the lecturer or other students might single him out in class. Finally, he acknowledged that he was often lonely at university and felt he did not really belong there, especially when the weather was bad and he could not retreat quietly outside.

2.4.5. Clinical Presentation

John was of average height and build. He was punctual, kempt and looked his stated age. He reported tiredness and anxiety upon arrival and during the assessment on several occasions but remained cooperative, task-focussed and communicative. John appeared to be fairly confident once assessment got under way.

John described his current and recent mood as “pretty good” despite his generalised feelings of anxiety about the assessment and his first few weeks of university. He reported that he had previously felt “depressed” for a period spanning several years. His
affect was euthymic and reactive, and normal in range, intensity and mobility. No abnormalities were detected in speech or thought stream, form or process. Content of thought was focussed primarily on his academic interests and studies, difficulties confronted in returning to study and concerns about changes to cognitive acuity. No abnormalities of perception were reported, and John was oriented to time, person and place. John concentrated well in sessions that lasted for up to two-hours without wanting breaks. He demonstrated considerable insight into the impact his “illness” may have had on his cognitive functioning.

2.4.6. Tests Administered

The following psychometric tests and subtests were used data collection: subtests of the Wechsler Adult Intelligence Scale-III, subtests of the Wechsler Memory Scale-III, subtests of the Wechsler Individual Achievement Test, Rey Auditory Verbal Learning Test, Rey-Osterreith Complex Figure Test, Controlled Oral Word Association Test, Wisconsin Card Sorting Test, Trail Making Test.

The Wechsler Adult Intelligence Scale-Third Edition (WAIS-III) is the most frequently used intelligence test for individual administration to adults. It provides useful indicators of diverse cognitive functions including attention, general intelligence, spatial ability and language function (Heinrichs & Zakzanis, 1998). There is ample evidence of the excellent content validity, criterion-related validity, clinical validity and construct validity reported in the test manual. In addition, the test-retest and split-half reliabilities of subtests were reported to be high and standardisation data were collected with regard to obtaining a representative sample of adults stratified on age, sex, race-ethnicity,
education level, and geographic region using 1995 U.S. census data (Rogers, 1999).

Related to the WAIS-III is the Wechsler Memory Scale-III (WMS-III), the most popular instrument for assessing various memory functions including global verbal memory, selective verbal memory and nonverbal memory (Heinrichs & Zakzanis, 1998). It is also individually administered and, like the WAIS-III is firmly grounded on clear theoretical bases. The standardisation sample included 1250 individuals and the manual provides extensive data concerning the reliability and validity of WMS-III scores. The authors reported good internal consistency reliabilities and stability coefficients. They also report good convergent and discriminant validities (Reynolds, 1999).

Subtests of a third related instrument, the Wechsler Individual Achievement Test (WIAT), were also used to gain indicators of specific academic skill levels. This test was designed primarily for use in school clinics and residential settings with subjects up to 19 years and 11 months of age. Consequently, although it was normed on a large sample of 4252 individuals, direct comparison of test scores obtained by the current client with standard scores were not valid and the data were interpreted informally. The internal consistency and split-half reliability of the test have been observed to be good, as has test-retest reliability. Evidence is provided of good content validity, criterion-related validity and construct validity, although some of this material is regarded as limited (Ferrara, 1994).

The Rey Auditory Verbal Learning Test (RAVLT) is a brief test that provides measures of global verbal memory and selective verbal memory (Heinrichs & Zakzanis, 1998) in terms of immediate recall, verbal learning curves, and delayed recall and recognition discriminability (Riley et al., 2000). Unfortunately, the norms for this instrument are drawn from a range of different studies and as such caution needs to be
taken when comparing raw scores to the normative means and standard deviations. Reliability and validity studies have produced highly variable results for test-retest reliability, but face validity, criterion-related validity, concurrent validity, construct validity and predictive validity are generally reported to be of an acceptable level. It is of concern that it is so difficult to evaluate the psychometric properties of the RAVLT, largely because 19 different variations have been identified (Shaw, 1996).

The Rey-Osterreith Complex Figure Test (ROCFT) is designed to assess visuospatial constructional ability and visual memory (Spreen & Strauss, 1998). The test also comes in a variety of formats and the normative data for the current version was based on a sample of over 2500 individuals aged between 6 and over 70 years. The manual reports generally excellent inter-rater reliability and, due to the nature of the task, poor test-retest reliability. The test displays good discriminant validity and adequate convergent validity, although some of the studies were based on very small sample sizes (Cohen, 2003).

The Controlled Oral Word Association Test (COWAT) is a brief test that provides a measure of language function and verbal fluency through recording the spontaneous production of words beginning with a given letter in a limited amount of time. Interscorer and test-retest reliabilities are reported to be excellent and normative data have been generated in many studies involving large numbers of participants stratified by age (Spreen & Strauss, 1998).

The Wisconsin Card Sorting Test (WCST) also provides a measure of executive functioning by measuring abstract reasoning, response to set changing, strategic planning, ability to use feedback to modify responses (Clark, 2001) and the tendency toward perseverative errors (Heinrichs & Zakzanis, 1998). The revised version of the WCST
has been normed on a sample of 899 individuals between 6 years 6 months and 89 years 11 months and it is very widely used in psychological assessment. Excellent results for interscorer and intrascorer reliability have been reported, and correlational and discriminant validity are also reported to be good making it one of the best measures of executive function available (Clark, 2001).

Finally, the Trail Making Test (TMT) assesses speed of visual search, attention, mental flexibility and motor function (Spren & Strauss, 1998). Being an older test, the TMT has been extensively studied and a wealth of normative data is available. The TMT has good test-retest reliabilities and excellent alternate form reliabilities. Measures of construct validity have been highly variable but are generally accepted as adequate. The test is noted as particularly sensitive to levels of education and corrections for age and education are strongly recommended (Spren & Strauss, 1998).

2.4.7. Neuropsychological Findings

2.4.7.1. Attention and short-term memory. John attended well to the tasks at hand during sessions of up to two hours. However, he displayed a reduced level of attention to detail and had difficulty in sequencing tasks that required simultaneous attention to two sets of factors. He also had problems with short-term memory, particularly when working with visual materials. At such times he typically lost concentration and his subsequent responses were delayed or tasks were not completed.

2.4.7.2. Executive functions. John had problems when required to think in visual images and to manipulate these with flexibility and speed, suggesting difficulties with
short-term memory for such materials as well as delays in processing speed and problems with search and scanning procedures. He was also observed to have difficulty planning and organising the reproduction of visually presented materials, and associated difficulty with recalling the design in its entirety. In contrast, many of his answers to timed verbal questions were produced in well under the maximum time permitted, sometimes resulting in errors that might otherwise have been avoided. This contrasting behaviour suggests he has problems in assessing the requirements of some tasks, developing strategies to manage problem-solving requirements and executing planned approaches toward the desired solution. John also demonstrated weaknesses in developing effective problem solving strategies in classification tasks and he was inclined to persevere with unsuccessful approaches to problems despite feedback that they were not working.

2.4.7.3. Verbal intellectual abilities. John demonstrated considerable strengths in the comprehension and recall of verbal material that had been learned previously and in applying verbal skills and common information to answering questions and solving simple problems. His overall performance on verbal intellectual measures fell in the high average to superior ranges.

2.4.7.4. Visuospatial abilities. John performed fairly well in tasks requiring reasoning based on visually presented physical stimuli. Such tasks involved appropriately sequencing events, reproducing complex geometric designs, and making reasoned judgements about the relationships between various patterns and shapes. However, John performed less well on timed tasks that required searching strategies and motor coordination, and on tasks that required divided attention or attention to detail.
John's overall performance on visuo-spatial measures fell in the average range.

2.4.7.5. New learning and recent memory. John's capacity to learn new auditory information was relatively weak. He had difficulty encoding new material in meaningful ways to assist in retrieval in several test contexts. Even after repeated exposure to the material his performance remained below average. However, John's delayed recall accuracy indicated repeatedly that once material was encoded, it was retained and could generally be retrieved efficiently. His immediate recall of abstract visual material was a significant strength, with an above average level of performance achieved.

2.4.7.6. Numeracy and Literacy. When permitted to use paper for calculations, John demonstrated superior mathematical skills, but attentional difficulties interfered when only mental processing was permitted. His literacy skills were also variable. He read aloud fluently and with correct pronunciation. In comprehension tasks, however, he sometimes searched inefectually for information that was implicit rather than overtly stated in the material, indicating the presence of weakness in reading for meaning.

2.4.8. Summary and Conclusions

John Doe is a 28-year-old man with a seven-year history of schizophrenia and a longer history of psychosocial decline. He was referred for assessment because of concerns about potential cognitive weaknesses that might impact on his capacity to cope in his return to university.

Neuropsychological assessment was conducted over four sessions in February and
March 2002. The assessor concluded that John possessed superior skills in the verbal comprehension domain, average skills in perceptual organisation and working memory, and low average skills in terms of processing speed. Relative weaknesses were observed in attentional processes, in concept formation and the encoding of information for subsequent recall, in developing and implementing effective strategies for problem solving and using feedback to guide the modification of responses, and in working on complex tasks under time pressure.

It is likely that John's cognitive difficulties can be largely accounted for by chronic schizophrenia, a disorder that typically affects cognitive functioning. However, results indicate that in many areas of cognitive functioning, John's abilities remain above or well above average. John's history indicates that he has improved in terms of concentration, energy, mood, and social functioning in the last three years, since he substituted Clozaril for Risperdal. It is likely that John has experienced a range of improvements in his cognitive functioning during his recovery, and it is possible that further improvement will occur in his cognitive functioning as his recovery continues.

2.4.9. Recommendations

In general terms, John probably possesses the cognitive abilities necessary to be successful in tertiary education. However, it is unlikely that he will do as well as in times past without expending considerably greater effort than was previously required and without adopting some specific strategies to compensate for the weaknesses that are identified in this report. Some strategies that may be useful to him include the following:

John should continue to work on strategies to manage his anxiety about university
and study tasks because anxiety is impacting on his capacity to cope with his studies, particularly when under pressure. In addition to working on this with his case manager, it may help to investigate some of the clubs and societies available at university to help him feel he does belong and is accepted at university.

Difficulties in attending within lectures may be reduced by audio-taping them so that he can focus specifically on the class notes that are displayed on the board, and so that he can replay the tape at home when he is attempting to increase his understanding of the material and consolidate his learning.

John will profit from adopting a more formal approach to study in order to assist himself generally, but especially when he is under pressure. John should draw up a study-and-revision planning chart to organise his time into discrete time components and then stick to the program rather than breaking off his efforts when tasks get to be frustrating. Attendance at study skills sessions (available periodically through the university) may be particularly useful.

John would benefit from developing formal checking procedures and allowing himself time to use them. Not only will this ensure a reduction in careless errors and a better understanding of expectations tacit within tasks, it is also likely to lead to increased understanding of task contents and to aid in the subsequent retrieval of information.

John should make contact with, and use, the university’s disability support service officers. They can provide specific advice and assistance in a range of areas to ensure he has appropriate supports at the university and is not unfairly disadvantaged in assessments etc.

It is highly probable that John will face considerable difficulty if he goes through with his intention of enrolling in four units in the next semester. A slower return to
academic studies is recommended – two units should be considered to be the maximum for a semester at this stage. It should be noted that a slow return to complex activities increases the likelihood of success in the long run.

2.5. Comparing the Theory with the Practice

The neuropsychological deficits expected on the basis of the literature reviewed and the actual difficulties observed in the subject of the assessment report are often difficult to reconcile. This is the case because of variations in the terminologies used and the lack of consensus about the specific cognitive deficits that are to be expected in individuals with schizophrenia. It also occurs because general patterns do not necessarily hold for specific examples and because comparisons need to be made in so many domains. In making assessments of individuals, the clinician should systematically compare the available information about what might reasonably be expected with the information that is collected about the individual’s behaviours. Where the comparison results in the identification of anomalies or inconsistencies, the data will require careful review or it may need supplementation. If further data are required, the clinician should attempt to triangulate on unusual results, using multiple measures that converge on particular items of interest. The use of such approaches typically results in the economical use of the clinician’s time while ensuring that appropriate testing of unusual results occurs.

In the present study, attentional deficits were expected, particularly in immediate serial recall tasks, reaction time tasks, tasks requiring simultaneous attention to two stimuli, tasks assessing vigilance, tasks requiring stimulus identification in backwards masking situations and in redirecting visual focus to the left visual field. Psychomotor
speed was also expected to be lower. John demonstrated a significant weakness on the letter-number sequencing subtest of the WAIS-III - although he obtained a reasonable score for digit span subtest - both of which are immediate serial recall tasks. Tests that relied partly on psychomotor function indicated increased reaction times due to psychomotor slowing (e.g., symbol search and digit symbol coding subtests of the WAIS-III, TMT A and B), and several trials confirmed difficulty in attending to two tasks simultaneously (TMT B, letter number sequencing subtest). There were varied indicators of reduced vigilance, for example, the WAIS-III picture completion subtest on which John performed below average, and in timed tasks generally. The control of attentional function over the left and right visual fields was not assessed.

Expected deficits in executive function included difficulties in attaining new concepts, systematic hypothesis testing and shifting mental set, and impairments in verbal and design fluency. All of these deficits were observed in John’s results. Problems in set shifting and in developing and testing hypotheses were particularly obvious in the extremely poor scores for the WCST, but to a lesser degree similar problems were observed in the average scores for the WAIS-III block design subtest and in results for the ROCFT. Verbal fluency was assessed with the COWAT and, although actual scores were above the 50th percentile, John scored extremely poorly on one letter because of a perseverative response.

Impairments were expected in a range of memory and learning functions. Learning has been observed to be typically slower, and recalling stories and abstract designs often less accurate, in-patients with schizophrenia. In addition, scores for memory function are usually lower than might be expected on the basis of IQ scores alone. Recognition memory is also often poorer, there is a tendency to make multiple prior-list and non-list
inclusions when repeating learned lists and poor sensitivity to frequency information is common. John demonstrated superior, and presumably relatively intact long-term memory skills, as assessed by the WAIS-III vocabulary, similarities and information subtests. However, scores for the logical memory subtest of the WMS-III and the RAVLT indicated extremely slow learning of new information and very poor recall of relevant data. Non-verbal memory, assessed by the visual reproduction subtest of the WMS-III and the ROCFT recall, was also slightly below average. Recognition memory was assessed for verbal and non-verbal materials (AVLT, logical memory and visual reproduction subtests of the WMS-III) and evaluated to be excellent, contrary to expectations. John was not observed to make multiple prior-list and non-list inclusions in list learning tasks tacit to the RAVLT. He did, however, display a remarkable insensitivity to frequency information in completing the WCST.

Finally, difficulties in language were reported to include problems in planning and editing expressive language, inhibiting inappropriate associations, perseveration and problems in using context to mediate word meaning. This area was less thoroughly assessed, although evidence of superior premorbid language function was obtained (WAIS-III subtests for vocabulary, information and similarities). As noted above, perseveration in word retrieval was observed during the COWAT, and John experienced difficulty in using context to mediate the meaning of words and ideas.

2.6. Summary and Conclusions

In this chapter I provided an overview of some of the literature that has described neuropsychological impairments associated with schizophrenia, the relationships between
cognitive deficits and functional outcomes, and the role of medications in the cognitive functioning of, and functional outcomes for, individuals diagnosed with schizophrenia. I also provided an overview of the psychometric properties of a number of tools commonly used in making neuropsychological assessments and used in the assessment that was reported in the third section. In this section I presented a case study of a premorbidly high-functioning young man with a seven-year history of formal diagnosis with schizophrenia. In the final section, I compared the cognitive deficits I expected on the basis of the literature reviewed with what was observed in the actual assessment process. Although there were several deficit areas mentioned in the literature that were not specifically tested for, most of my literature-generated expectations were largely borne out in the assessment outcome, and certainly the research reported in the literature was invaluable in selecting the tools and setting up the parameters of assessment. It was also noted that a change of medication several years ago has led to very substantial improvement in function in diverse arenas, as also suggested in the literature.

This case illustrates how a clinician can enhance his or her clinical judgement by using the extant research literature to develop hypotheses, to define tools and to establish the overall parameters of the testing program. The imperatives that test instruments be reliable and valid, and that comprehensive normative data be available against which to compare raw scores, were also highlighted. It also illustrates the need for assessments to be relevant to the specific circumstances and the referral question while still being undertaken in such a way that comparisons can be made with existing normative data. Finally, it demonstrated how expectations based on the literature could be tested by the use of multiple instruments that converge on specific skill areas, and how informed clinical judgement may be used to reconcile findings that are sometimes inconsistent or
contradictory and typically not amenable to statistical analyses.

The final comment that seems relevant to this case is that, perhaps because this man was premorbidly high functioning, he had retained a considerable intellectual capacity despite very real and frustrating deficits that developed in the context of his illness. For John this is considerably more distressing that the fact that on occasions he has heard voices that others do not hear and feared people and situations that others regard as commonplace and appropriate. It therefore is readily apparent that the functional impact of cognitive deficits associated with schizophrenia is highly context-dependent and that skills deficits must therefore be evaluated idiographically and relative to premorbid skill levels.
CHAPTER THREE:
THE USE OF AN EMIRICALLY VALIDATED TREATMENT FOR
POSTTRAUMATIC STRESS DISORDER

3.1. Introduction

In recent years there has been an exponential expansion in the information available to guide the clinician with respect to most psychological diagnoses and treatments. This information is invaluable in the provision of quality clinical services, provided the clinician has time to access, understand and evaluate the data contained therein. Unfortunately, however, few clinical psychologists work in specialist settings where the range of client presentations is relatively limited and the associated literature is manageable. In fact most work with a very wide range of client presentations and they are therefore challenged to keep pace with the literature describing many different developments across a huge range of domains. There has also been a huge increase in the demands placed on the time of clinicians working in public mental health settings, many of which originate within the mental health agency itself. For example, agencies frequently specify minimum case throughput expectations for clinicians and, in many settings, therapeutic time is limited according to the specific diagnostic presentation to ensure that all clients wishing to access services are accommodated.

Consequently, the contemporary clinician is potentially exposed to a much larger body of literature than clinicians in previous decades, but the ethical obligation to keep up to date with the emergent literature, in the interests of providing the client with the best possible clinical service, remains unchanged. However, it is not humanly possible
for anyone to read more than a tiny fragment of the ever-increasing numbers of papers published each year in the ever-expanding libraries of practice journals (Dawes, 1999). The practicing clinical psychologist is even less able to do so given the pressures placed on his or her professional time by agencies focussed on throughput and economic service accountability. Under these pressures, the clinician may sometimes feel overwhelmed and must, of necessity, find ways of streamlining his or her work without compromising the services provided to clients.

A sound working knowledge of existing empirically validated treatments can help the clinician to provide superior quality treatments for clients within the constraints of an ever more stressed and demanding public mental health system. Such knowledge enables the clinician to use his or her time to maximum benefit by permitting highly strategic reading, optimising treatment selections and thereafter by guiding treatment implementation.

This chapter focuses on the use of empirically validated treatments with a 27 year-old man who presented to a public mental health clinic with symptoms of posttraumatic stress disorder (PTSD).

3.2. Literature Review

3.2.1. Criteria for Treatment Quality

In evaluating the clinical utility of treatments it is necessary to consider the extent to which a given treatment has been empirically validated as “probably efficacious” or as “well-established in efficacy” (Division 12 Task Force, 1995, pp. 21-22).
Criteria for "probably efficacious" treatments are the less rigorous of the two — they specify that (a) two studies, or a small series of case studies, show that the treatment is more effective than a wait-list control condition, (b) that two studies by the same investigator meet the well-established criteria, (c) that one "good" study demonstrate the treatment meets the well-established criteria, or (d) that two studies which are flawed by variations in sample characteristics demonstrate effectiveness (Division 12 Task Force, 1995, p. 22). Studies of this type allow one to conclude "the therapy caused a degree of change beyond the amount of change caused by such factors as the mere passage of time or the effects of repeated testing" (Borkevic & Castonguay, 1998, p. 137).

A treatment that is "well-established in efficacy" has been found to be efficacious (superior to pill or psychological placebo, or equivalent to another well-established treatment) in at least two group design studies (or a large series of methodologically sound case studies) by different investigators using manualised treatments and providing clear specifications about client characteristics. This type of research enables one to draw the conclusion that, in the criterial study, "therapy caused a degree of change beyond the amount of change caused by factors common to all therapies" (Borkevic & Castonguay, 1998, p. 137) for that particular combination of problem, setting, time and persons.

Several different sets of criteria for specifying minimum requirements for methodological rigour in efficacy studies themselves have also been developed. For example, Nathan and Gorman (1998) specified minimum research requirements for "type one studies" — randomised prospective clinical trials with comparison groups, random assignment to groups, double-blind assessments (data collected by an individual blind to group allocations), clearly presented inclusion and exclusion criteria, state-of-the-art diagnostic methods, adequate sample sizes, and clear statistical analyses. Foa and
Meadows (1997) argued that in addition of meeting the criteria of type one studies, “gold standard” studies involve treatments that are delivered by two therapists (to control for therapist effects), reliable and valid assessor training, detailed, manualised, replicable treatment procedures, and ratings indicating the level of treatment program compliance.

3.2.2. Exposure Therapies for PTSD – An Overview

PTSD is a condition that may develop following exposure to a traumatic event (involving actual or threatened death or injury to one’s self or others) to which the individual reacted with intense fear, helplessness or horror, which is re-experienced persistently, in which there is persistent avoidance of stimuli related to the trauma and numbing of responsiveness, where persistent symptoms of increased arousal occur and where symptoms cause significant distress or impairment in social, occupational or other important areas of functioning for periods in excess of 1 month (American Psychiatric Association, 2000).

A substantial number of good quality studies have validated exposure therapies as useful for the treatment of PTSD. Exposure therapies involve clients confronting fears and other aversive emotions that have been learned through classical conditioning (Keane, 1998), so that, by habituation to the stimuli, by emotional processing of it, and/or by the perception of disconfirming evidence, extinction of fear responses is facilitated (Foa & Kozak, 1986). A range of techniques uses exposure as a central component, for example, systematic desensitisation, flooding, image habituation training and prolonged exposure (Richards & Lovell, 1999). Two distinct types of exposure are used – imaginal exposure, in which the client systematically recalls details of the traumatising event from
memory (or elaborates detail in the imagination) in the therapist's office, and in vivo exposure, in which the client is confronted by actual situations, places or objects that provide reminders of the traumatic situation. These are often integrated within a single treatment program. Exposure approaches vary in terms of duration, level of subjective arousal and frequency of treatments (Foa & Meadows, 1997; Foa, Steketee & Rothbaum, 1989). However, exposure treatments are typically time limited and may be effective within as few as 9-12 weekly sessions (Ballenger et al., 2000), making them attractive in cost-benefit analyses. Exposure therapies have been used to successfully treat PTSD due to combat, sexual assault, incest, motor vehicle accidents and a range of other traumatic events in adults, adolescents and children (Leskin, Kaloupek, & Keane, 1998).

3.2.3. Research into Exposure Therapies

Many case reports and uncontrolled studies supporting the use of exposure techniques have been reported in the literature over the last 20 years, and a growing series of type one or gold standard studies have been reported in the last 15 years or so. These studies have varied in quality and sophistication. There have been two main types: wait-list controlled studies testing whether exposure techniques lead to significant improvement (and are therefore “probably efficacious”), and comparisons of exposure techniques with other cognitive-behavioural methods and psychotherapyic interventions (to test whether exposure can be regarded as a treatment that is “well established in efficacy”).

Keane, Fairbank, Caddell and Zimering (1989), Cooper and Clum (1989) and Brom, Kleber and Defares (1989) conducted the first really significant studies of the
efficacy of exposure therapies in treating PTSD. Unfortunately, although all three studies were regarded as indicative of the “probable efficacy” of exposure therapies, they were also criticised for their lack of methodological rigour and they were therefore not regarded as definitive. Foa, Rothbaum, Riggs and Murdock (1991) conducted the first methodologically sound “gold standard” study two years later. The results of this study provided strong indications that exposure methods were efficacious and that they may have the potential to be recognised as well established in efficacy. Foa et al. compared exposure therapy, anxiety management training (in the form of stress inoculation training), supportive counselling and wait-list control for the treatment of PTSD due to experiences of sexual and non-sexual assault. At post-treatment they found that outcomes for individuals in the stress inoculation-training group were marginally superior to those for the exposure group, and both were significantly better than supportive counselling and wait-list control condition. At follow-up, outcomes for the exposure group were slightly better than for stress inoculation training.

Three further methodologically superior “gold standard” studies were conducted in 1998 and 1999. Marks, Lovell, Noshirvani, Livanou and Thrasher (1998) compared the utility of exposure therapy, cognitive restructuring, exposure therapy with cognitive therapy, and relaxation training in the treatment of PTSD. Participants were 87 individuals self-referred or referred by “professionals” and emergency services workers. Marks et al. observed that exposure and cognitive restructuring, singly and in combination, were equivalent to each other, and superior to relaxation in treating PTSD at termination and at 6-month follow-up. Tarrier et al., (1999) compared the responses of a mixed group of trauma victims to exposure treatments and cognitive therapy at treatment termination and at 6-month follow-up. They reported improvements in PTSD
symptoms associated with both exposure and cognitive therapy, and no significant differences between treatments.

Foa, Dancu, Hembree, Jaycox, Meadows and Street (1999) built on the above findings, comparing outcomes from programs of exposure therapy, stress inoculation training and a combined approach to treatment with wait-list control conditions. They sought to establish if outcomes for combined approaches (using both stress inoculation training and exposure therapies) were superior to outcomes for each therapy in isolation. Foa et al. found that all three active treatment conditions reduced the severity of PTSD compared to the wait-list control condition, but that they did not differ significantly from each other and that there were no cumulative effects where efficacious treatments were used in combination.

In summary, although type-one studies of treatments for PTSD have been emerging for some time, the most rigorous outcome research for PTSD has reached a gold standard in only four instances. The findings of these studies indicate that exposure treatments are "probably efficacious" because consistent evidence has verified that exposure therapy is better than a no treatment option or wait-list control. However, because cognitive and stress inoculation interventions are also effective in treating the symptoms of PTSD, it remains unclear whether in vivo or imaginal exposure therapies are "well established in efficacy" at this stage.

3.2.4. Practical Considerations

Methodologically rigorous studies have verified that exposure treatments for PTSD are probably efficacious and therefore, acceptable at least as one treatment option among
others. However, at a more practical level, exposure therapy may be considered as the
treatment of choice for PTSD for two reasons. These are a) that exposure therapy is
fairly easy to implement, and training clinicians to use it is not difficult and b) exposure
places fewer intellectual demands on the client than other treatments and it is therefore
easier to follow (Foà & Rothbaum, 1998).

3.3. Case Study of the Treatment of PTSD

3.3.1. Background Information

Graham was a 27-year-old unmarried man who lived by himself in a rented
property in a small rural town. Graham was referred to the Community Mental Health
Service by a general practitioner concerned about the increasing levels of anxiety and
negative affect reported by his patient. The doctor suggested that these problems might
be linked to a motor vehicle accident involving Graham that had occurred four months
previously. Describing the accident, he reported that the passenger in Graham’s utility
and the driver of the other vehicle had died at the scene in a relatively remote forested
area but that Graham received only minor injuries.

The accident had occurred on a poorly formed, narrow gravel road. In a statement
to the police, Graham estimated that he had been travelling at approximately 60
kilometres per hour toward the other car when the other driver began a right hand turn
across his path. He reported he was unable to steer around the other vehicle or to pull up
in time to avoid a head-on collision, which resulted in both vehicles spinning off the
roadway and rolling down an adjacent embankment.
Graham explained that he had been pinned in the wreckage for over an hour before a four-wheel drive vehicle came by and the occupants were able to provide assistance. Police reports suggest that the driver of the other vehicle died quickly as a result of major head injuries. However, Graham’s passenger, who was also pinned in the front of the utility, apparently remained semi-conscious for more than half an hour, during which time Graham tried desperately to free himself so he could help him. Unfortunately, his friend died from his injuries and subsequent blood loss in the seat next to Graham before help arrived at the scene.

Eventually Graham was rescued from the wreckage by the Country Fire Authority road rescue crew (called by the driver of the four-wheel drive) and transported to hospital. Unsuccessful attempts were made to revive his passenger. At the hospital, Graham was found to have only minor lacerations and contusions, but he was kept in overnight for observation. Graham was released from the hospital the following day on the provision that he stayed with his mother.

According to his doctor, Graham appeared to cope well with the immediate sequelae of the accident – the interviews with police and the provision of a statement, contact with the family of his deceased friend, the funeral, dealings with the insurance company etc. Within a week he had arranged the use of another vehicle and had returned to his work as a contract shearer working local sheds.

The doctor also noted that Graham’s father had died in a motor vehicle accident 10 years prior to that time when Graham was 17 years old. In addition, he reported that Graham had been involved in another accident as a passenger about four weeks after the first, but he noted that this was relatively minor. He said that Graham had sought his assistance on two or three occasions following this, complaining of symptoms of
increased anxiety and depressed mood. Consequently, the doctor started him on a course of fluoxetine, which was observed to assist with resolving problems associated with his lowered mood, but which was found to be of limited value in assisting Graham with managing his elevated anxiety.

3.3.2. Presenting Problems

At assessment at the Community Mental Health Clinic, Graham described three months of increasing difficulties. He complained that initially he had been fearful while travelling in motor vehicles and that eventually he had found it nearly impossible to do so. He described periodic vivid “flashbacks” to the accident scene accompanied by intrusive memories and feelings of guilt about his deceased friend. He also reported having nightmares about being trapped in small, enclosed spaces and not being able to get out. In addition he reported maintenance insomnia, decreased appetite, increased irritability, and difficulty concentrating on a wide range of tasks. Finally, Graham explained that he was going out with friends less frequently and that he seldom enjoyed himself when he did go out with them, and he reported that he was drinking alcohol more frequently and in larger amounts.

Upon being drawn further Graham was able to describe recurrent and intrusive cognitions concerning both the dangers of motor vehicles and specific aspects of the accident in which his friend was killed. He also reported ruminative thoughts about the death of his father in a car accident and his subsequent resolve to never be involved in a bad accident himself. He stated that he felt like a total failure and that he was responsible for his friend's death because he was driving and should have been able to avoid the
accident, and because he was protected by the driver’s side airbag and his friend was not. Graham also reported that he had come to think that he really had little control over what happened to him.

Of greatest immediate concern to Graham was his heightened fear of driving or being driven. He reported he had got to the point where he was extremely reluctant to travel with another person as the driver and stated that on those few occasions when he drove a vehicle he was overwhelmed by feelings of dread. At such times he found it useful to pull over to the side of the road until things “settled down” – until his breathing and pulse rate had returned to normal. Graham said that, because of his aversion to driving, or being a passenger in a motor vehicle, he was having more and more problems meeting work commitments. He explained that that his business was slowly falling apart because too many workdays were being lost because he could not bring himself to drive to the shearing sheds.

Graham was diagnosed as suffering from PTSD, having met all of the key criteria.

3.3.3. Treatment Program Planning

Before treatments were decided, a meta-analytic review by Keane (1998) and an analysis of empirically validated treatments by Chambless et al. (1995) were examined. Both sources indicated cognitive-behavioural approaches generally, and exposure therapies specifically, for PTSD were probably efficacious and both provided a list of references that enabled a rapid and strategic access to the research literature. This led to the acquisition of some of the literature discussed earlier in this chapter and the remainder was located through a series of literature searches for cognitive-behavioural and exposure
therapies for PTSD. After wide reading in a narrow field, the following treatment strategy, a combination of psychoeducation, imaginal and in vivo exposure, cognitive therapy and anxiety management training, was designed and implemented. It is noted that exposure procedures provided the core experiences around which other therapy components were organised, consistent with the evidence provided in the literature of efficacious approaches to the treatment of PTSD.

3.3.4. Treatment Program Implementation

Graham was treated for PTSD in 12 weekly sessions ranging from 60 to 90 minutes duration over 3 months. Early stages of the treatment consisted of imaginal exposure through writing activities and discussion and cognitive restructuring around beliefs associated with the accident and driving. In the later phases the focus was on in vivo exposure to reminders of the accident (initially assisted by the therapist and later aided by a relative). Graham was also encouraged to comply with his doctor’s recommendation that he take Prozac twice daily.

The first session after the initial assessment was used to describe the symptoms of PTSD to Graham, to provide an explanatory model of the symptoms and to outline the treatment approaches that would be taken. At the end of the session Graham was given a homework task of writing a dual-purpose “essay” about the accident. Firstly it was aimed at re-exposing Graham to details of the accident, his reactions to it and its impact on his views of himself over time. It was also intended to provide the therapist with further insight into the dysfunctional cognitions such as over-generalisations, self-blame statements etc. that constituted obstacles to Graham’s recovery, and to allow him to
identify resources that may aid therapy.

In the second session Graham brought in a three and a half page statement largely
describing factual details about the accident itself, but also recording some of his
reactions to it and his present thoughts and feelings about driving. Graham read it to the
therapist who then guided him in identifying specific emotions associated with the
accident and driving, and subsequently, the difference between thoughts and emotions. It
was pointed out that it is not so much the actual stimulus that affects us as the beliefs we
generate around it. Graham was asked to consider the differences when we interpret a
noise in a darkened house as “just the cat” as opposed to “an intruder”. This led to the
development of work sheets that were used to identify activating events, the beliefs that
developed in response to them and the feelings that were linked to the beliefs. These
sheets were used for a homework task that required Graham to record “beliefs” and
collections associated with several events that occurred during the subsequent week,
particularly in relation to any actual experiences of driving, being driven or planning to
drive.

The third session began with a review of and discussion about the sheets that were
completed during the preceding week. The therapist challenged Graham over some of
the most obvious cognitive distortions that became apparent through this process, and
particularly challenged his self-blame, using questions such as “what if...?” and requests
to “give me the evidence”. A portion of the session was also devoted to training in
progressive muscular relaxation so that Graham could practice relaxing when he felt that
he was becoming anxious. He was asked to devote 15 minutes twice a day to consciously
practicing this. Graham reported that sometimes he could not get the thoughts out of his
head. Therefore he was introduced to the technique of thought stopping to be used when
he noticed ruminations occurring. This involved training in interrupting the flow of intrusive thoughts by silently verbalising the word “stop” and replacing the intrusive thought with a pleasant image of a favourite place. For homework Graham was asked to rewrite his original account of the accident but with a focus on his sensory experiences, his thoughts and his emotions at various stages. He was instructed to write the account that night, to read his account at least daily and preferably several times a day while attempting to make himself consciously aware of the feelings that were associated with it. When he felt he was becoming excessively anxious he was asked to practice his thought stopping and his relaxation methods. It was explained that this task would be difficult and stressful initially, but that it would become easier with time.

The following week Graham read his re-written account of the accident and associated thoughts and emotions to the therapist. Avoidances, self-blame and other cognitive distortions associated with the accident, and with driving generally, were more vigorously challenged by the therapist. Relaxation procedures and thought stopping practices were reviewed and reinforced, and healthy lifestyle choices were discussed. The latter focussed on what constituted good sleep habits, a healthy diet, an appropriate exercise regime and the levels of activity and social interaction generally recognised as useful in dealing with negativity and low motivation. For homework Graham was asked to write about the beliefs and feelings that he associated with driving or being driven and to attempt to explore how his reactions were linked to reactions to the death of his father, his friend and the other driver.

The fifth week began with Graham reading his homework while the therapist looked for details that were missing from the first account and attempted to validate the feelings reported. Specific training in challenging beliefs was provided and Graham and
the therapist developed a set of “Challenging questions” that could be used during the week ahead.

Challenging questions included the following:

- “What is the evidence for or against this idea?”
- “Am I using absolute terms such as ‘always’, ‘forever’, and ‘never’, or ‘musturbations’ that are prefixed with ‘must’ or ‘should’?”
- “Am I thinking in all or nothing terms?”
- “Am I taking selected examples out of context?”
- “Am I confusing high probabilities with low probabilities, or probabilities with certainties?”
- “Am I basing my judgements on feelings rather than facts?”
- “Am I expecting to have control over events where I have no control?”

Graham was asked to use this framework to challenge some of the beliefs reflected in his most recent writing with the therapist assisting. This led to the notion of using challenging to dismiss distorted beliefs and to replace them with realistic evaluations. For homework, Graham was asked to use this process when his anxiety was raised in any situation and to record the event, his feelings, his unchallenged beliefs and his “new” beliefs. In addition he was asked to rate his subjective units of discomfort and the strength of his unchallenged beliefs, and the subjective units of discomfort and the strength of his “new” beliefs.

In the sixth week Graham’s records of challenged beliefs were reviewed and discussed. Additional distorted beliefs were challenged by the therapist. The notion that many beliefs are dysfunctional, unrealistic, absolutist and/or self-condemning was
discussed using examples generated by Graham and augmented by other examples from the therapist. Relaxation practices, thought stopping methods and lifestyle-related behaviours were also reviewed. In addition, specific attention was paid to discussion of Graham’s father’s death in a motor vehicle accident in which associated emotions were validated and Graham’s belief that he was somehow responsible challenged gently. The discussion extended into how the death of his friend and the other driver was not avoidable and that he had done his best to assist at the time. Graham agreed that, given his new way of looking at his emotions and beliefs it was time to challenge his fears most directly by driving on a more frequent basis and by allowing himself to be a passenger in a vehicle. Accordingly, plans were made for the following week when Graham would wait for the therapist at his home and, when he arrived, take him for a drive.

The remaining six sessions were used in similar ways. Sessions were used for Graham to practice actual driving, initially in the company of the therapist and confined to low speed movement around the local area. Later, however, planned drives were undertaken by the therapist with Graham as the passenger, and finally by Graham with his mother assisting. Eventually Graham was able to drive to the scene of the accident and to drive to the graves of his father and his friend. After such drives Graham met with the therapist to discuss, debrief and analyse self-reports of subjective discomfort. Relaxation training, thought stopping techniques, lifestyle practices and the veracity of thoughts about the major accident, the death of his father, the death of his friend and the death of the other driver were regularly reviewed. By the end of 12 weeks it appeared that the presenting complaint had been largely resolved through the combination of imaginal and in vivo exposure practices, cognitive challenging, anxiety management and psycho-education, and the medication he had been prescribed.
3.4. Summary and Conclusions

This chapter included a rationale for why the clinician should attend to the literature on empirically validated treatments, an overview of the central criteria used in evaluating treatment efficacy and methodological rigour in clinical trials, and a brief overview of the key characteristics of PTSD and of exposure therapy. This was followed with a review of the current state of the literature on empirically validated treatments for PTSD, with a particular focus on exposure therapies, and a case study of the treatment of a 27 year-old man with PTSD induced by experiences associated with a motor vehicle accident.

Although there are several unresolved issues that may impact on the meaningfulness and the generalisability of the handful of methodologically rigorous clinical trials that have been conducted to date, cognitive behavioural approaches, including exposure therapies, show significant utility in the treatment of PTSD. That such approaches are "probably efficacious" compared with wait-list control conditions has been clearly demonstrated, but it is yet to be seen if they can be accepted as "well established in efficacy".

By being aware of this information, the clinician may more rapidly "cut to the chase", aware that the combination of imaginal and in vivo exposure therapies has been observed to be useful to individuals presenting with PTSD. Therefore, the time spent by the clinician in investigating possible treatment options and selecting the preferred approach can be considerably curtailed, and treatment outcome is likely to be significantly enhanced. He or she must, of necessity, be selective in the use of professional time. The use of his or her knowledge of empirically validated treatments to
*streamline treatment selection* and, thereafter, to *guide treatment implementation*, is an effective way of balancing the competing pressures of agency productivity demands and the ethical responsibility of providing the client with the best quality clinical experience. Thus, errors of clinical judgement tacit in selecting an inefficacious approach or administering an efficacious approach ineffectively are substantially reduced.
CHAPTER FOUR:
A FAMILY SYSTEMS APPROACH TO TREATING A CHILD'S
“PROBLEM BEHAVIOURS”

"By seeing the whole family as a part of a standard procedure one may considerably improve the effectiveness and economy of clinical work, even in instances where family therapy as such is not contemplated" (Jenkins, 1994, p. 64).

4.1. Introduction

This chapter contains a report on the assessment and treatment of problem behaviours displayed by an 11 year-old boy. The approach to assessment and treatment used in this study focuses to some extent on behaviours at the individual level, but it also specifically focuses on the wider dynamics within the child’s family context. The use of such an approach resulted in the emergence of a systems focus, which is sometimes more informative than the predominantly individual-focused, “medico-diagnostic” approach most frequently used by clinicians.

The case that is presented particularly highlights the way in which a clinician’s flexibility and willingness to consider alternate theoretical and conceptual frameworks can be an asset to clinical assessment and treatment processes. In addition, it demonstrates the importance of systematic and comprehensive approaches to the assessment of behaviours, particularly through the use of data about the individual and his or her environment collected from multiple informants. It also draws attention to an
approach that encourages the clinician to explicitly partition information, hypotheses and speculations, and thereafter, to simultaneously consider multiple explanatory hypotheses.

4.2. Family Systems – General Considerations

4.2.1. Considering the Individual’s Context

Whenever a clinician makes judgements about the nature of an individual’s presenting problems, forms hypotheses about aetiological factors, seeks to identify maintaining influences, or plans for cognitive, affective and/or behavioural change, it is usual that he or she attends to two things. Firstly, the clinician develops a comprehensive understanding of the individual’s symptomatology based on personal observations, the identified client’s self-reports, the results of objective and projective testing and the reports of others who are in regular, close contact with the identified client. In addition, the clinician attempts to develop a comprehensive understanding of the historical antecedents and contemporary environmental contexts of the reported symptoms.

Most clinical assessment reports include information describing the family and/or broader social contexts of the identified client. Family data are often organised into genograms that typically identify the names and ages of family members, but which may include information about family psychiatric histories, relationship histories and the character of important intra-family relationships, especially where they are enmeshed or conflictual. Additional information may include developmental, educational, medical, employment, forensic, social and psychiatric histories, and care is usually taken to collect information about proximal stressors.
The need for the simultaneous analyses of the individual's symptomatology and the context in which it has arisen is universal, but it is most obvious in relation to the assessment and treatment of problems in children. There are a number of reasons for this. Firstly, parents and/or families usually want to be involved in assessment and treatment processes, and the child often also wants them to be involved. Secondly, by involving parents and/or families, the clinician is able to tap into a rich source of information about the identified clients' presenting symptoms and/or behaviours, developmental histories, and the familial, social, medical and educational contexts in which particular problems have arisen. Thirdly, by involving parents and/or family, the clinician is often able to enlist valuable assistance for the development and delivery of effective and economical interventions for the treatment of identified problems. Fourthly, parent-child and/or family dynamics may be significant factors in the aetiology or maintenance of the identified client's symptoms, or the problem behaviours may be reactions to contemporary family issues. Finally, parents and/or families may have issues that have developed in reaction to the behaviours of the identified client, which may also need to be addressed in order to assist the presenting individual (L. Cosgrave, personal communication, August 21, 2002).

Although interpersonal relationships are relevant factors in a wide range of clinical contexts, they assume particular significance in relation to children because of the unique relationship that exists between the individual child and his or her family. The family is usually regarded to be the most important single environmental influence on the psychological health and development of a child (Rutter, 1991), and the level of warmth and care within family relationships is thought to be particularly influential, both in the short and the longer term. Many researchers have observed that high levels of warmth
and affection in parent-child relationships predict effective and competent behaviours in the child. They have also observed that an absence of warmth and affection is often associated with internalising disorders such as depression, anxiety and social withdrawal, and externalising disorders involving delinquent, aggressive and/or oppositional behaviours (Barber, 1992; Maccoby & Martin, 1983; Rutter, 1991). Given such empirical relationships, understanding family characteristics is often considered to be central to understanding and treating disorders of childhood and adolescence (Rutter & Giller, 1983).

However, even when the identified client is a child or adolescent, many relevant aspects of the client’s family environment may not emerge if the assessment approach used is primarily individual-focussed and pathology-oriented. Such an approach often ignores important contextual factors that are highly relevant to the final case formulation. For example, although basic family data is collected in most assessments, the practice of seeking information about the nature of, or changes to, boundaries, alliances, functions and structures within the family is less widespread, and it is seldom the focus of assessment and interventions.

This is best understood by recognising that there are two contrasting extremes in the continuum of approaches to assessment. The medico-diagnostic approach that is most common in clinical psychological settings is nomothetic, primarily focused on the comparison of self-reported and observed characteristics of the client with sets of criteria that are listed in the Diagnostic and Statistical Manual of Mental Disorders-IV (American Psychiatric Association, 2000). This approach contrasts markedly with the systems approach to assessment. This approach typically attempts to bring together salient biological, psychological, behavioural, affective and social features of the individual and
his or her contexts that are thought to predispose, precipitate, perpetuate or protect against the identified problems. Such an approach provides an idiographic narrative that is focussed on the context for and the subjective impact of conditions, and it is often highly useful for informing the clinician of optimal therapeutic interventions (Davies, 2000).

The identified client in the case presented in this chapter was first “assessed” using the standard individual-focussed, pathology-oriented assessment model preferred by the agency where he presented. However, during data collection and organisation, many family factors loomed as potentially significant but they were not well elaborated, and after consultation, the boy’s parents and myself all believed it could be useful to explore the family issues further. Therefore, an alternate assessment approach, grounded in an entirely different systems-oriented theoretical framework, was used to elicit and organise information, to develop hypotheses, and to speculate on the multiple levels of influence and circular patterns of communication within the family. The particular assessment tool that was selected was the Bouverie Information and Assessment Schema (BIAS), which they describe as a systematised and comprehensive framework for the “linear recording of work conducted from a systemic perspective” (Pawsey & Firestone, 1983, p. 144).

4.2.2. Bouverie Information and Assessment Schema (BIAS)

Pawsey and Firestone (1983) described the principal aims of the BIAS framework as: (a) facilitating the review of issues that are important in a systemic family therapy, (b) systematising data recording, (c) alerting the therapist to gaps in the data gathered, (d) emphasising the distinction between information and assessment, and (e) encouraging
thoughtful and imaginative speculation, all of which is recorded explicitly but separately from the formal assessment.

In the original BIAS format Pawsey and Firestone suggested the clinician organise information from the client and the client's family in 12 components. These were: (a) pre-interview contacts (family membership and referral details), (b) problems presented (framed within the family context), (c) family-therapist relationship (focussing on transference and counter-transference between the family and therapist), (d) family transaction patterns, (e) family transitions, (f) family (social) contexts (particularly significant demographic variations such as minority culture membership), (g) individual family members (developmental, medical, psychiatric and educational histories, personality), (h) transgenerational issues (including parents’ families of origin, family histories), (i) resources and limitations for therapy, (j) therapists (membership of the therapy team, relationships between therapists), (k) current formulation, and (l) termination and follow up.

Pawsey and Firestone (1983) encouraged the therapist to use collected information as a basis for generating multiple hypotheses about processes and mechanisms that might explain the observed family dynamics. They also encouraged the generation and recording of intuitive speculations that might still contribute usefully to the assessment process by providing targets for further investigation or by leading to the development of additional hypotheses. They suggested all of these elements should be reported and recommended a specific format. They suggested that in reporting the assessment, collected data should be clearly designated as “Information” within each component of the report. In addition, they recommended that each component include a headings of “Assessment” under which “Hypotheses” (inferences made by the clinician) and
"Speculations" ("more fanciful ideas of the therapist which can’t be directly related to data collected", Pawsey & Firestone, 1983, p. 146) were included.

4.2.3. BIAS and the Current Case

As noted above, an assessment of the identified client was conducted using an agency-preferred medico-diagnostic approach, and it was later judged that re-examining the client and his family context using the BIAS might more usefully inform treatment approaches. The BIAS report, which is presented here, focused closely on intra-familial transaction patterns and characteristics of family structure and function that were judged as highly relevant to the development and maintenance of the problem behaviours displayed by the identified client. It also focused on family factors that could potentially contribute to the amelioration of the identified client’s problems or protect him from further difficulties. The BIAS is less focussed on diagnosis and the pursuit of an understanding of (generally unidirectional) causation than the approach used initially. Instead its use encourages a broader, more holistic analysis of possible etiological factors and interaction effects in the wider family and a parallel analysis of potential approaches for ameliorating the difficulties for the family and for the individual. It provided a useful format for recording and partitioning the multi-informant factual information collected from the referred client and members of the client’s family, the hypotheses that were built out of that information, and speculations that might lead to hypotheses development. I found that the BIAS also clearly focused attention on the therapist as a significant variable inside of the family-in-therapy system, challenging me to reflect on personal attitudes and biases that might distort the data collected and reported and the conclusions
I judged use of the BIAS to be highly appropriate in the context of this referral because it provided a framework that was *systematic and comprehensive*, as recommended by Garb (1998) and it was *preferred by the client family* over the format used initially, as recommended by Seligman (1995). In addition, it encouraged the development of *multiple explanatory hypotheses*, as recommended by Turk, Salovey and Prentice (1988) and Arnoult and Anderson (1988). Finally, the use of the BIAS reflected a choice of assessment tool (and theoretical bases) *driven by the emergent data* rather than by existing clinician preferences, as recommended by Rabinowitz and Efron (1997).

The case study below includes 11 of the 12 components suggested by Pawsey and Firestone (1983). The component for *"family-therapist relationship"* was developed during the assessment but is not reported below because it was judged to contribute little extra to the overall understanding of the child and his context. Two additional components are added in order to inform the reader of therapeutic works undertaken. These are headed *"therapeutic strategies – theory"* and *"therapeutic strategies – practice"*.

### 4.3. Family Systems – Case Study Using the BIAS

#### 4.3.1. Pre-interview Contacts
Wayne is an 11 year-old boy who is enrolled in Mountain Views Primary School in Grade 6 and who lives in a medium sized rural town. He was referred to a Child and Adolescent Mental Health clinic by a paediatrician at a major metropolitan hospital in November 2000. The paediatrician expressed concerns about a range of aggressive, impulsive, oppositional and inattentive behaviours that were apparent in the context of his school and home environments.

b). Assessment.

Hypothesis: The paediatrician believed Wayne and his parents required more guidance and assistance than she could practically provide.

Speculations: This referral for problem behaviours was made at approximately the same time as the recent marital separation. The occurrence of challenging behaviours and ongoing difficulties with their management may be related to the impact of wider familial stressors (e.g., marital conflict, communication problems, grief and loss issues).
It is expected that parental resources for managing Wayne’s challenging behaviours were reduced at that time and may have remained so.

4.3.2. Problems Presented

a). Information.

Wayne’s parents said he is “often hyper’, they stated that he has “problems concentrating” and they described his behaviour as typically “aggressive and argumentative”. They reported that these behaviours occurred at school and at home. In addition, they indicated that Wayne was inclined to bully others and that he sometimes had tantrums if unable to get what he wanted. He was described as highly protective of Mary. Wayne’s mother reported that he had recently developed secondary (nocturnal) enuresis, “wetting his bed more nights than not”.

In an individual session Wayne reported experiencing a lot of anger. He said he was particularly unhappy with his relationship with his father who he described as “uninterested” in him and “not caring”. He also expressed concern with his own lying, general disobedience and the occurrence of impulsive, “silly” behaviours such as intentionally falling off chairs in class. He stated that his bed-wetting “really bothered” him and that it had begun at about the same time as his parents had separated.

The Principal of Wayne’s school described him as “a B student working at D level” and described a long history of incidents involving argumentative and defiant responses to authority figures and poor attention and concentration in the classroom. He also described more troublesome incidents involving Wayne urinating on the playground equipment at lunchtime, stealing his teacher’s car keys and Wayne simulating intercourse
while lying on top of a boy he had been fighting.

b). Assessment

Hypotheses: Some of Wayne’s aggressive and oppositional behaviours are learned within the family by modelling and some are largely reactive, reflecting his confusion and distress with intra-familial dynamics and recent structural changes with his parents separating. Hyperactive and inattentive behaviours probably reflect a largely biological diathesis but behaviours are exacerbated by difficult family circumstances. The enuresis has been triggered by the family break up.

Speculations: Dysfunctional intra familial communication patterns contribute to the maintenance of aggressive and oppositional behaviours. Specifically, discipline is likely to be harsh and/or inconsistent, and boundaries internal to the family are excessively fluid and malleable. The occurrence of tantrum behaviours suggests the presence of high levels of expressed emotion and poor conflict resolution styles between the parents. Wayne’s “silly” attention seeking behaviours may reflect maladaptive ways of coping with a conflictual family context where positive attention is difficult to attract. Wayne’s sexualised behaviours suggest there may be a lack of privacy at home.

4.3.3. Family Transactional Patterns

a). Information.

Annie and Tony had been separated since November 2000 and living in separate houses. However, they saw each other regularly in the process of caring for the children and they continued to share a sexual relationship at times when their relationship was more positive. Annie and Tony described major difficulties in communicating over
important issues and significant differences in backgrounds, beliefs, goals and expectations.

Tony explained that he tended to avoid discussions whenever possible because he believed they usually led to open conflict anyway and because he could “never” find the right way to say what he meant. He also reported that when relationships became too difficult he was inclined to avoid issues by “walking out” completely. He explained that he had consciously decided not to take the initiative in discipline issues any more because he believed his decisions were never the right thing in Annie’s eyes. He said that Annie often thought he was too harsh and therefore she actively undermined his decisions by providing compromises for the children. Both Tony and Annie agreed that he was very dependent on Annie who was responsible for the day-to-day management of both households. He argued that this made sense because she was so good at such tasks. He also stated that he had fewer problems with the children because he was more relaxed and intruded less on their activities. Comments from Wayne’s school Principal suggested that Tony often set a poor example for his children, for example, doing “monos” on his motorbike when picking one of them up at school, failing to comply with the children’s low sugar dietary requirements when he made their lunches on school days etc. Tony agreed with the therapist when it was put to him that he occupied a role in the family of a third child who needed to be looked after by Annie and who wanted to be a “mate” to his children.

Annie reported that she preferred to talk important issues through and that she resented Tony’s reluctance to discuss issues, noting that this in itself often led to fights. Annie stated that Tony had confused views of his roles as a spouse and parent. She understood her relationship style as dominated by a tendency to “mother” others. This
was reflected in a history of caring for her siblings and father after the untimely death of her mother, bearing her first children and then raising them by herself after her first husband’s death, and then bearing and largely raising her second pair of children and caring for Tony. Both Annie and Tony felt that Annie had never really had time for herself and that she had spent her whole life caring and taking responsibility for others. Since the separation she had made efforts to establish interests outside of the family through her local church.

Wayne saw Annie as the “softer” and warmer parent, and he was aware that he often successfully stretched her boundaries. He showed considerable dependence on her but also appeared to have parentified behaviours with respect to his mother and his sister Mary. For example he often supervised and tried to discipline his sister, he was very concerned about his mother’s safety and well being and was very protective of her. He also reported that he was a reluctant confidante of both Annie and Tony during their break up.

Mary was a quiet, withdrawn child who reported she got on well with everyone in the family, except when Wayne bullied her. She said she didn’t have much to do with Tony and that she spent most of her spare time with her mother. Mary had experienced a series of major health concerns through her childhood and was regarded as the family member most in need of protection by the other three. Mary was rarely observed to initiate discussion or express her own opinion without first being asked for it. Her behaviour presented no difficulty for her parents and she believed she got along well with Wayne, although they had few things in common.

b). Assessment

Hypotheses: Tony’s need to be cared for and Annie’s need to provide care are
complementary, but neither party derives much satisfaction from the relationship. Tony is not generally providing the parental or marital support that Annie wants, and she rejects his attempts to involve himself because she cannot accept his distant parenting and occasionally hard discipline style. Annie has sought to deal with this by asking for the separation and by attempting to establish a new life independent of Tony and Tony has withdrawn further from Annie and the children. The central communication problem could therefore be characterised as one of approach being met by retreat, irrespective of who initiates the approach. Frustration results for both parties.

Wayne finds Tony's roles within the family difficult to deal with, viewing him sometimes as a fine and irresponsible "mate" and sometimes as a harsh, unpredictable and uncaring authority figure. He resents the hurt his father has inflicted on his mother.

Mary role is less problematic in the current family dynamics. She presents as a point of stability within the family and all family members concur in their concern and care for her.

Speculation: Tony prefers to terminate the marriage but is sufficiently dependant that he cannot do so and Annie prefers it all ended but she feels a maternal responsibility for Tony's wellbeing. Their unsatisfactory relationship therefore continues because of their co-dependence.

4.3.4. *Family Transitions*

a). *Information*

There were several major changes within the family in the two years prior to assessment. Firstly, Wayne changed schools in mid 2000 in order to move away from
what his parents regarded as a frustrating and unsupportive school environment.
Secondly, Tony and Annie “separated” in November, 2000 and were still adjusting to
living separately while at the same time maintaining an intimate relationship and
reviewing the possibility of reconciliation. Thirdly, Annie and the children had moved to
live in a medium sized rural town and subsequently enjoyed the greater diversity of
opportunities available. In addition, Wayne had recently begun to express interest in girls
and to make sexual references at home and at school.

b). Assessment

Hypotheses: Concerns about Wayne’s previous school may have been misplaced –
the problems observed at this time at least partially reflected problems arising from the
family context. The lack of clarity and consistency in Tony and Annie’s relationship is
confusing for all family members. Wayne is entering early stages of puberty.

Speculations: Wayne’s oppositional and aggressive behaviours are likely to
escalate as he approaches puberty and parental supervision is likely to become even more
difficult.

4.3.5. Social Contexts

a). Information

Annie and Tony were living in separate houses 15 kilometres from each other and
Annie was the main care provider for the children. However, the children often stayed
with their father and Annie often visited Tony at his home (and vice versa). Wayne
stated that he wanted to live in the rural town even if his parents got back together,
because of the greater number of opportunities available.
Few extended family or social supports existed - there was little contact between family members and most others in the larger family network, a consequence of both early deaths and bitter estrangements. The family had few shared social supports – Tony socialised with his friends in his motorbike club and Annie socialised with the friends she had made at church.

The family had been dependent on welfare benefits continuously for 11 years. Tony and Annie had seen a paediatrician about Wayne since he was two years old and had engaged with local family support services on several prior occasions.

b). Assessment

Hypothesis: The recent separation increased the pressure associated with Wayne’s behaviours and the lack of other family and social supports has made it difficult for Annie to establish herself independently from Tony.

Speculation: Environmental stressors have a pronounced impact on this family because there were few external support structures to assist. In turn this made the tension between Annie and Tony more pronounced and their interdependency more obvious.

4.3.6. Individual Family Members – The Identified Client

a). Information

Wayne was a planned and wanted baby, and the pregnancy and delivery were unremarkable. Wayne displayed a difficult temperament from birth, not sleeping for more than 10 minutes at a time for several years despite feeding well. He progressed through motor developmental milestones very quickly, standing at 5½ months and walking independently at 8 months. Annie described the infant Wayne as “a whirlwind”
and his paediatrician described him as “extremely lively but disorganised”. Wayne was a confident infant and he displayed no separation anxieties. He enjoyed playing with other children at kindergarten and school, although he was sometimes loud and aggressive.

Wayne was diagnosed with Attention Deficit Hyperactivity Disorder at the age of 5 by his paediatrician and was prescribed Ritalin for this condition. At the end of 1999 Wayne became noticeably depressed and increasingly aggressive and defiant, using abusive language at home, reporting suicidal ideation and self-harming. He was prescribed Zoloft at this time and has continued to take it since.

Wayne presented as being of average height and weight for his age with sandy hair and freckles. He was confident in interaction and displayed significant insight into problems associated with his behaviours, indicating that he wanted to work on controlling his anger, his lying and other impulsive behaviours. When asked what he might do if he had three wishes he said he only needed two - he wished he could get his parents back together again and that he could change his attitude so he didn’t “carry on so much”.

b) Assessment

Hypothesis: Early developmental history indicates the presence of a significant biological/genetic loading in the origins of Wayne’s problem behaviours. His early contact with mental health clinicians demonstrates that Wayne’s parents are keen to access expert assistance and that they have had this attitude since early in his development.

Speculation: Projective testing suggests Wayne has some insight into the consequences of his actions, for himself and possibly for others. It also suggests that his parent’s separation has been of great concern to him.
4.3.7. Transgenerational Issues

a). Information

Tony was a tall, thin man with a shaven head and a long ginger beard. He described his family of origin as “bizarre” and chaotic. He was raised by his mother after his parents divorced and he said he had little contact with his father. He has a daughter and a son from short relationships with two other women but has only maintained limited contact with the older of these children. Tony has had limited education and has poor literacy skills. He worked as an unskilled labourer until 11 years ago when he injured his back and was granted a Disability Support Pension. He described his main interests as riding his motorbike and socialising with bike club friends. Annie believed that Tony had experienced depression and low self-esteem originating with his ill health and inability to work and his fragmented, conflictual family of origin.

Annie was a woman of average height and weight who appears to be older than her chronological age. She was first married at 16 when she was pregnant with her first son. Her mother died shortly after this and she took substantial responsibility for her father and younger siblings. Her first husband died in an industrial accident when her first two children were still very young. They are now adults and living independently. Annie remarried in 1990 with Tony who she had met through mutual friends and began a new family. Annie has worked in various unskilled positions but at present is not in paid employment. She described her main interests as the church and her family. Annie had a history of depression and had taken anti-depressant medications for extended periods in the past. She also reported that doctors have had difficulty in identifying the origins of some of her physical complaints.
b). Assessment

Hypotheses: Tony’s disengagement and problems in maintaining adult functioning within the family reflect his limited family experiences in childhood, particularly the lack of a male role model. Problems in resolving conflict reflect his family of origin and are repeated in his present family. He has been progressively drawn to his motorbike club as an alternative source of fraternity and identification as his marriage becomes more difficult and less satisfying.

Annie occupied a mothering role for a long time, usually unsupported. The presence of unresolved grief and the ongoing demands of parenting has led to recurrent bouts of depression and a decreased capacity to cope with parenting and relationship difficulties. Her involvements with the church also reflect efforts to establish a separate identity.

4.3.8. Resources and Limitations for Therapy

a). Information

Annie and Tony were both committed to the children and were sometimes observed to suspend differences in opinion when it seemed likely to impact negatively on the children. Wayne and his sister had secure relationships with their mother and both recognised that the relationship with their father was important. Wayne’s relatively high intelligence and his insight into his own behaviour promised to be an asset when he attempted to try some new ways of reacting to situations, although his long history belies this.

Tony’s reluctance to consider and discuss complex and difficult issues, and his
willingness to walk out of situations when they became too difficult, presents obstacles to therapy. The fact that Annie and Tony have such different interests and life-styles suggests that finding common ground in shared activities will also be difficult. Parenting issues were significant factors in the marital separation – and they remained unresolved at assessment.

b). Assessment

Hypothesis: There are obvious internal pressures for change from Tony, Annie and Wayne, which will be useful in facilitating change. Successful work with all members of the family will depend on keeping Tony positively focussed on tasks at hand without feeling threatened and wanting to avoid involvements. Good therapeutic progress will also depend on Tony and Mary improving their communication and clarifying their relationship.

Speculation: The relationship observed in the presence of the therapist may not reflect the interaction at home. This may in fact be much more volatile and emotionally charged. Mary and/or Tony are not really committed to the therapy process.

4.3.9. The Therapist

a). Information

The therapist was working solo with the family under the supervision of the team leader at his agency. Although at intake the assumption was that individual and parent training in behaviour therapies were the most promising tactics in addressing the behaviours of the identified client, the boy’s issues link into many broader family issues making couple and family therapy the most useful approaches.
The family members communicated freely with the therapist and often used him to mediate communication between them. Family members anticipated appointments and made a point of sharing any new mementoes of achievements or stories of disappointments with the therapist (e.g., certificates for "student of the week", records of school suspensions) but they also seldom completed homework tasks.

b). Assessment

Hypotheses: Annie, Tony and Wayne accepted the therapist as an "expert" who might be able to assist them individually, but all three tended to display dependence on him and to avoid taking responsibility for their own behaviours (e.g., by working on skills between sessions).

Speculation: The parents have not attempted to change Wayne's behaviour because: a) some behaviours are proximally convenient, b) the parents have other issues that distract them – individual (e.g., experiencing depression) and marital (e.g., interpersonal conflict), and c) changing Wayne’s behaviour requires more energy and effort than permitting the undesired behaviour to continue.

4.3.10. Current Formulation

a). Hypotheses:

The family is undergoing a series of changes. The separation between Annie and Tony is due primarily to communication difficulties between the partners. The separation has increased the pressure on Annie to find more effective ways of managing Wayne's behaviours, particularly the aversive oppositional ones, and both parents have shown a commitment to work to consider strategies to achieve change. Although both parents are
willing to consider a full reconciliation, it appears to be subject to Tony changing in
terms of his levels of responsibility and participation in family life and subject to Annie
better regulating her emotional expression and managing her depression.

Family discipline processes are particularly fraught with problems. Tony's
reluctance to be involved is predicted by his difficult family background and reinforced
by Annie's contradicting his decisions, and his overall disengagement reflects a feeling
that he is superfluous to the family unit. Annie reacts to Tony's harsh discipline
approaches undermining his authority. Wayne has learned he can manipulate situations
by arguing with her and occasionally having tantrums. Because she has been
significantly depressed and physically unwell for an extended period Annie has lacked
the inner resources to change these behaviours despite having a clear understanding about
methods of behaviour change. Tony's avoidance of difficult issues also contributes to
maintaining such behaviours.

Wayne has found parental separation difficult and wishes it to be otherwise. This
concern directly contributes to aggressive and oppositional behaviours. It also caused
him to consider his own roles in the family and it appears he has decided that he needs to
make significant changes. His early temperament suggests a strong biological diathesis
for some of the current problem behaviours. However, many are reactions to current and
past family issues, and some problem behaviours have been actively modelled within the
family.

b). Goals of therapy

Goals for therapy were constructed with the client family. The primary goals of
therapy were to help the family find a new homeostasis where communication between
all family members was substantially improved, where child discipline and overall
management practices were more consistent between the partners and where Wayne's oppositional and aggressive behaviours were reduced. This requires work on positive communication and problem solving, and a more effective integration of Tony into the role of father and a strengthening of Annie’s boundaries and the consistency of her approaches to discipline. In addition, it was decided that subsystem realignments of roles occupied by Wayne were necessary to deal with his “parentification” and Annie needed further assistance to overcome her feelings of depression.

4.3.11. Therapeutic Strategies - Theory

In terms of addressing problems in communication and oppositional and aggressive behaviours, parent management training (PMT) and functional family therapy (FFT) have both been repeatedly evaluated as highly effective treatments (Kazdin, 1998; Lebow & Gurman, 1995). The approach used in the present case combined PMT with FFT, the aim being to “increase reciprocity and positive reinforcement among family members, to establish clear communication, to help specify behaviors that family members desire from each other, to negotiate constructively, and to help identify solutions to interpersonal problems” (Kazdin, 1998, p. 76). This approach requires that the therapist abandon the neutral, non-judgemental stance typical in conventional psychotherapy, becoming involved in the family’s interpersonal processes, nurturing some points and challenging others (Goldberg & Goldberg, 1991).

In treatment planning it was necessary to first contrast the structures (i.e., regulating codes and patterns in which family members relate) and functions (i.e., parent, partner, child) of the subject family with those of a “healthy” family. This required a
consideration of subsystems, boundaries, hierarchies and alliances within the family as reflected in interaction patterns. James and MacKinnon (1986) suggested a “healthy” family has a clear and definite structure, an appropriate executive hierarchy, openness to growth and change, and shared understandings about roles and responsibilities. Within such families they argue, boundaries are clearly defined, legitimate authorities exist with stable rule systems that are consistent and predictable, and communication is effective, open and honest. In contrast, “dysfunctional” families are characterised by either diffuse or rigid boundaries, unclear, ambiguous or skewed hierarchies, and a lack of clarity and openness in communication.

4.3.12. Therapeutic Strategies - Practice

After the assessment period and following feedback therapy was undertaken with respect to Wayne, the parents and the family involving six weekly individual sessions with Wayne, six weekly parent sessions and six fortnightly “family” sessions (only two of which were attended by Mary).

Individual sessions were comprised of supportive counselling and specific therapy. Interventions specifically targeted anger management, problem solving strategies and conflict resolution strategies. At the first meeting Wayne stated he was pleased to have someone to talk to who would help him with some of his problems. Wayne attended closely and participated actively in all sessions, but he did not manage to complete / bring in homework tasks that were set (e.g., an anger diary and questions concerning conflict in relationships). Wayne reported he understood the ideas that were communicated and the skills that were taught and that he would find them useful. He was confident and
communicated freely with the therapist over a wide range of issues.

Parent sessions were used to focus on communication patterns between the parents and within the family and approaches to parenting and specific discipline strategies. Tony and Annie agreed that they had highly divergent expectations of their children and that their approaches to discipline were inconsistent. They also identified that they “undermined each other” and that Annie had done most of the active parenting in recent years. Both parents had a pre-existing understanding of the need for change in their children and of some strategies they could use. However, change did not occur because of the problems identified above and because considerable energies were directed in spousal conflicts. Consequently, in these sessions, attention was given to developing strategies for sharing decisions, valuing and supporting each other, resolving conflict and accepting differences, and changing relationships by changing individual action. Tony sometimes said little but when he was challenged it was apparent that he was following discussions and reflecting on them. Some time was also devoted to training the parents in behavioural approaches to managing enuresis.

Family sessions focussed on intra-familial and interpersonal communication. Significant foci were facilitating frank communication about positives and negatives in the family as perceived by each member and generating shared perceptions of goals for the family and the individuals within it. Considerable time was also spent on developing effective strategies for resolving conflicts and for communicating needs and expectations. The importance of homework and home experiments was emphasised in all sessions. This reflected the belief that regular practice would aid the generalisation of new skills and understandings, increase their durability, and reinforce the belief of individual family members in their capacity to affect change.
4.4. Conclusion

The data relevant to this case were organised and reported using a slight adaptation of the BIAS, a framework that was developed to facilitate the analysis of family structures, functions, interactions and interrelationships in circumstances where an individual was presenting with specific problems that could be better understood within the family context. Data were primarily collected from three family members about a wide range of issues relevant to the presenting individual but also to the wider patterns of family interaction. The fourth family member occupied a highly protected position, seldom contributed opinion and was seldom mentioned by other family members.

In comparison to the first report that was developed using a medico-diagnostic approach, the use of the BIAS increased the depth of the understanding of family factors that may contribute to/actively maintain the problem behaviours of the identified client. In addition, it laid bare multiple levels at which therapy could be implemented, and exposed numerous issues around which family, parent and individual interventions eventually occurred. Finally it drew my attention to some of the preconceptions and biases that are typically used to fast track decision-making processes.

This case clearly indicates that flexibility and a willingness to shift theoretical and conceptual sets are valuable in some clinical settings. It also demonstrates how systematic and comprehensive approaches to assessments can more effectively inform treatments in some contexts. Finally, the BIAS provides a framework that encourages the recording and explicit partitioning of information, hypotheses and speculations, a useful tool that leads to the systematic generation of multiple explanatory hypotheses that may
be subsequently tested, evaluated and either accepted or rejected.

Despite a long history of involvement with mental health professionals, the family continued to believe that a range of issues had not been satisfactorily addressed. The BIAS approach was also successful in that Wayne and the adult family members believed it was useful in helping them to identify the origins of the problem behaviours and the factors implicated in their maintenance. By facilitating an understanding of the problem behaviours within the family setting, the identified client and his family were able to embrace and implement significant changes that actively addressed both family issues and individual problem behaviours. In this process they learned new skills that they could take away and build on, hopefully without need for further professional support.

At discharge, parental reconciliation seemed more likely but had not, at that stage, occurred. Wayne's oppositional and aggressive behaviours had been significantly reduced and he was no longer enuretic. In addition, Wayne's subjective evaluation of his overall well being was considerably enhanced.
CHAPTER FIVE:

STRUCTURED CLINICAL INTERVIEWS, MANUALISED TREATMENTS

AND PANIC DISORDER

"I've gone through months of sheer hell ... sure I was losing my mind or dying or
both in some horrible way. My house is like a wreck and I can't seem to do nothing
(sic). I've spent months trying work out what this is and trying to get help. It's hard
being so terrified and then having to take Jason to school ... Even a trip to the
supermarket terrifies me and now I just want to stay at home forever" (Jacinta,
personal communication, 2 May, 2003).

5.1. Introduction

This chapter has two primary purposes. The first is to demonstrate how a clinician
can make use of a structured clinical interview schedule to conduct systematic,
comprehensive and replicable assessments of Diagnostic and Statistical Manual of
diagnostic criteria sets. A second purpose is to illustrate the use of an empirically
validated, manualised treatment program for panic disorder using an approach that has
been recommended as efficacious for panic disorder by the Division 12 (Clinical

The use of such tools, where they exist, ensures that the clinician has fulfilled his or
her ethical responsibility to use the best quality assessment approaches and to provide the
highest quality treatment programs available for use in that particular context, and presumably results in the best quality outcomes. In addition, after the initial learning process, the use of structured interview schedules and manualised treatment protocols potentially results in an economy of time and effort for the clinician.

5.2. Structured Clinical Interviews

Although some clinicians regard structured or semi-structured interviews as constraining, impractical and perhaps superficial (Westen, 1997), unstructured clinical methods have been regularly observed to be incomplete, unsystematic and susceptible to idiosyncratic assumptions and expectations that undermine the validity and reliability of the assessment (Widiger, 2001). The use of structured and semi-structured interview schedules controls for a wide range of the biases and oversights that are often associated with clinical judgements by ensuring that diagnostic decisions are carefully linked to diagnostic criteria (Garb, 1994; Wedding & Faust, 1989). However, structured clinical interview schedules do not remove the responsibility for decision making from the clinician, instead they provide guidance to the clinician with respect to the range of relevant issues that need to be considered in the assessment process. Their use systematises assessments and ensures a comprehensive consideration of all relevant issues, both of which contribute to increased levels of reliability and validity in the judgements made when compared with those made using unaided clinical judgements. At the same time their use can accommodate clinician discretion with respect to highly unusual and significant factors that often cannot be accommodated in statistical or actuarial approaches to decision making.
The structured clinical interview schedule discussed in this study was the Structured Clinical Interview for DSM-IV Axis I Disorders (Clinician’s version) (SCID-CV-I) (First, Spitzer, Gibbon, & Williams, 1997a). The SCID-CV-I is published in a manual format and is accompanied by an additional 63 page scoresheet booklet (First, Spitzer, Gibbon, & Williams, 1997b). Although it can be used in several different ways, in this study it was used as a screening tool during the intake procedure and to confirm and document a diagnosis that was presumed on the basis of the clinical interview.

The SCID-CV-I contains six modules, that may be administered in any order, which focus on mood episodes, psychotic symptoms, psychotic disorders, mood disorders, substance use disorders and anxiety and other disorders. A number of other diagnostic categories are included in the SCID-CV-I only in summary format and personality disorders are included elsewhere in a parallel format. The SCID-CV-I is suitable for use with most people older than 18 years and with some adolescents. However, it is not recommended for use with individuals who are psychotic. Data is usually collected from the identified client, but where he or she is a poor historian, it may be collected from his or her family or friends, or from medical records. The complete SCID-CV-I typically takes between 45 and 90 minutes to administer (First et al., 1997a).

5.3. Manualised Treatments

Foa and Meadows (1997) argued that manualised, replicable and specific treatment programs ensured that consistent treatment delivery occurred across patients and between therapists. They regarded this as an essential feature of “gold standards” for treatment outcome research and they argue that, by using such manuals, the clinician was well
equipped to precisely replicate therapies that have already been observed to be well established in efficacy research contexts.

However, only a relatively small number of such treatment manuals have been specifically recognised as providing acceptable guidelines for the replication of efficacious treatments and these have only been identified for a small range of psychiatric conditions (Woody & Sanderson, 1998). Of these, four multi-modal psychological interventions have been recommended for panic disorder (see Barlow & Cerny, 1988; Barlow & Craske, 1994; Clark, 1989; Salkovskis & Clark, 1991).

5.4. Panic Disorder

5.4.1. Panic Attacks and Panic Disorder

Panic attacks are discrete periods of intense apprehension or fearfulness that are accompanied by feelings of impending doom or imminent danger (American Psychiatric Association, 2000) and which are so intense that victims may think they are experiencing heart attacks, brain haemorrhages or incipient death (Hafner, 1993). Four or more specific symptoms must be present to meet diagnostic criteria for panic attacks. These are sensations of shortness of breath or smothering, feelings of choking, palpitations, sweating, trembling, nausea, dizziness, depersonalisation or derealisation, numbness or tingling, flushes or chills, chest pain or discomfort, and fear of going crazy, losing control or dying. Symptoms of panic attack develop abruptly and peak within 10 minutes (American Psychiatric Association, 2000). Panic disorder is diagnosed when a pattern of recurrent panic attacks is established combined with a persistent concern about further
attacks, worry about the implications of an attack, or behavioural change in response to the attacks. Panic disorder is further classified as occurring with or without agoraphobia (American Psychiatric Association, 2000).

5.4.2. Treatment Approaches

Two distinctly different approaches to treatment for panic disorder have been empirically verified as efficacious. Individuals diagnosed with panic disorder typically respond well to psychopharmacological interventions, but cognitive-behavioural treatments for panic symptoms and combined approaches have typically proved to be as good, or better, particularly in terms of the long-term maintenance of panic symptoms (Mitchell, 1999). In fact, Andrews, Oakley-Brown, Castle, Judd and Baillie (2003) reported that available evidence-based treatments show that at one year the economic costs of cognitive-behavioural treatments were less than the cost of drug therapies. They also noted that during the second and following years the superiority of cognitive-behaviour therapy increased whether or not drugs were continued. Despite this, a multi-modal approach to panic disorder is frequently used in clinical settings, typically combining SSRIs with multiple cognitive and behavioural interventions.

5.4.2.1. Psychopharmacology. Four groups of drugs have well-documented acute efficacy for the treatment of panic disorder. These are tricyclic anti-depressants, monoamine oxidase inhibitors, selective serotonin re-uptake inhibitors (SSRIs), and benzodiazepines. All four classes of anti-depressants / anxiolytics have demonstrated significant therapeutic effects in multiple clinical trials, although SSRIs are now
generally regarded as the preferred pharmaceuticals for the treatment of panic disorder (Raj & Sheehan, 1995; Roy-Byrne & Cowley, 1998; Sundel & Sundel, 1998).

5.4.2.2. Cognitive-Behaviour Therapy. Successful cognitive-behavioural treatments combine several different elements reflecting an explanation of panic attacks as the consequences of a positive feedback loop between internal bodily sensations, cognitive events and the patient’s anxiety responses to stimuli. (Salkovskis, 1988). Components typically include: (a) the provision of psychoeducation on the nature of panic disorder and the “fear-of-fear” cycle; (b) the acquisition of symptom management skills through training in relaxation and diaphragmatic breathing; (c) cognitive restructuring aimed at the elimination of catastrophic misinterpretations of anxiety symptoms; (d) the elimination of the fear of anxiety sensations through systematic desensitisation and/or interoceptive exposure to panic symptoms; and (e) the elimination of the avoidances that accompany anxiety disorders through in vitro and/or in vivo exposure (Rosenbaum & Pollock, 1995).

Psycho-education is aimed at demystifying the somatic symptoms of panic by providing information about the physiology of panic, its cognitive and behavioural correlates, and the nature of the fear-of-fear cycle theorised to underlie panic (Beck, 1988; Klosko & Barlow, 1996; McNally, 1994). Theoretically this provides reassurance about panic symptoms and sets the scene for later cognitive interventions. Homework is an important element, with panic diaries providing raw data for cognitive exploration and for instruction in symptom management ( Rapee & Barlow, 1991) and providing baseline data that may be useful in evaluations of the progress of therapy.
Relaxation procedures are used to encourage greater control of reactions to somatic events and associated cognitive experiences, and to provide a mediational calming exercise (Hecker & Thorpe, 1992, Sanderson & Wetzler, 1995). Breathing retraining also involves procedures that help patients to manage the symptoms of panic better and to correct tendencies to hyperventilate (McNally, 1994; Sanderson & Wetzler, 1995). Exercises often involve patients over-breathing and then comparing the effects of hyperventilation to the symptoms of panic, encouraging them to re-attribute internal sensations to incorrect breathing management. Training to encourage slower respiration rates and diaphragmatic breathing typically follows (McNally, 1994; Otto & Deckersbach, 1998; Sanderson & Wetzler, 1995).

Cognitive restructuring is used to retrospectively challenge catastrophic misinterpretations of somatic sensations in therapy. Techniques include Socratic questioning and collaborative assessment of evidence for the validity of catastrophic interpretations, often using thought records and panic diaries as starting points (McNally, 1994; Otto & Deckersbach, 1998). The assumption is that by understanding how cognition fuels panic, patients may challenge catastrophic thoughts to arrive at more rational interpretations of experiences (Sanderson & Wetzler, 1995).

Systematic desensitisation involves imaginal exposure to cognitive cues for anxiety through use of a hierarchy of feared symptoms and cognitions developed by and for the patient. The procedure acts as a stress inoculation by allowing patients to develop more appropriate coping mechanisms for the challenges of daily life (Sanderson & Wetzler, 1995). Similarly, interoceptive exposure targets anxiety by encouraging patients to re-evaluate the significance of somatic sensation. Interoceptive exposure may involve activities such as breath holding, hyperventilation, spinning in a chair, running up stairs,
and breathing through straws to induce sensations that mimic those of panic (Klosko & Barlow, 1996; McNally, 1994; Otto & Deckersbach, 1998). This technique is based on the premise that patients can habituate to the sensations that trigger panic and learn that such sensations do not necessarily precede harm and therefore do not need to be feared (Beck, 1988).

*In vivo exposure* primarily targets avoidance behaviours arising from fears of situations or activities in which panic occurs. *In vivo exposure* is frequently used in combination with interoceptive exposure (Rapee & Barlow, 1991). Typical treatments begin with interoceptive exposure taught in therapy and later practiced in patient’s homes, followed by *in vivo* exposure to facilitate generalisation to progressively less "safe" environments (Otto & Deckersbach, 1998). The treatment requires considerable therapist time and is therefore often expensive.

### 5.5. Case Study: Jacintha and Panic

This case study focuses on the use of a structured clinical interview schedule and a manualised treatment with a 39 year-old woman who presented to a Community Mental Health Service with symptoms of panic.

#### 5.5.1. Assessment

Jacintha was encouraged to present for assessment at a Community Mental Health Clinic by her general practitioner after complaining of periodic attacks of pronounced panic that occurred in a range of contexts and apparently without warning. Jacintha
attended the assessment appointment accompanied by her husband Neil and 11 year-old son Jason.

5.5.1.1. Mental State Examination. Jacintha, a 39 year-old woman, was shorter than average height and was obese. She appeared older than her stated age and was casually dressed and clean in appearance. She maintained good eye contact for most of the time, but avoided eye contact when discussing her most distressing symptoms and experiences, during which periods she slumped down in her chair and looked very fearful. Jacintha was relatively easy to engage and was cooperative throughout the interview.

Jacintha described her mood as “worried”, “scared” and “depressed”. Her affect was anxious, restricted in range and limited in reactivity. Affect was congruent with the content of the interview. No abnormalities were detected in the rate, rhythm or prosody of speech, but volume and spontaneity of speech were both reduced. No abnormalities were detected in form or stream of thought. Content of thought was centred on fear of panic episodes, fear that there was something very wrong with her, and fear that she would never get back in control of her life. No abnormalities of perception were reported.

Jacintha was oriented to time, person and place, but she reported her attention and concentration were decreased. She also reported having had recent problems with her memory. Intelligence was estimated to be average or below average. Jacintha’s judgement was limited but she had some insight and was motivated to seek help.

5.5.1.2. Structured Clinical Interview for DSM-IV disorders (SCID-CV-I).
Selected portions of the SCID-CV-I were administered. The “Overview” elicited background information including demographic data, educational and occupational history, status of current treatments, chief complaints / description of problem, onset of present illness, environmental context and possible precipitants, course of present illness, treatment history, other current problems, and current social functioning.

The first stage of the interview elicited the information that Jacintha was a 39 year-old woman who had been married for four years and was living with her 42 year-old husband, Neil, and their eleven year-old son. She reported that Neil typically spent 6 months of every year interstate due to work commitments.

Jacintha had completed limited schooling, leaving school in Year 8, and she reported she had never been in paid employment. She stated that since leaving school she had done the housework for her mother and “travelled a bit”, but she proved to be an exceptionally vague historian. When asked about her family, she reported that she had not been married before. She said she had lived in a stormy defacto relationship with Neil for eight years before they decided to get married in 1998.

Jacintha reported she had been treated for anxiety, depression and panic by several general practitioners and in hospital emergency departments over the preceding five months, but stated that “counselling” she had received had been of no value to her and that she could not tolerate the drugs that had been prescribed. She reported that the staff at the hospital was unable to identify the cause of her symptoms but she argued they might be linked to approaching menopause. She was unable to explain why she believed this and confirmed that her menstrual cycles were quite regular, and that there was no clear pattern linking her panics and phases of her menstrual cycle. She stated that she had had “several” blood tests over the preceding months and that analyses had detected
no noticeable irregularities at the organic level.

Jacintha described unpredictable periods of heightened anxiety that were typically of less than one hour in duration. During these times she claims her “pulse goes funny in me (sic) arm” and she then becomes fearful that her heart is stopping. Panic attacks occurred more frequently at nighttime but had also occurred throughout the day. Jacintha said she was inclined to stay at home all the time because she was scared she would have an attack in a public place. She said that when symptoms get “really bad” she asks her husband to take her to hospital where she receives intra-muscular injections of diazepam. She estimated that she had attended the emergency department 3 or 4 times over the preceding five months.

According to Jacintha, her panic attacks had begun in December 2002 when she had an adverse reaction to a dose of St John’s Wort, a mild herbal medication recommended as an anti-depressant. She was unable to identify significant situational stressors that were apparent at this time.

Jacintha stated that her panic attacks were really depressing her because she felt that she couldn’t “get out at all”. She said that she spent most of her day at home in bed or watching the television and eating “junk”. She reported that she had no friends where she lived and preferred to keep to herself all of the time because then “other people can’t let you down”.

Jacintha reported reasonable physical health. She stated she was really sensitive to medicines and had not been able to tolerate prescription or herbal antidepressants. Although she used to drink very heavily, she had not drunk alcohol for many years and she reported that she had never taken any illicit drugs. Jacintha was vague about her caffeine intake but Neil indicated that she probably had two or three cups of instant
coffee a day.

After collecting the above information and because no psychotic symptoms or substance use problems were reported during interviewing, it was decided to administer only module A for mood episodes, module D for mood disorders, and module F for anxiety disorders of the SCID-CV-I. These were administered verbally with the clinician posing defined questions in a predetermined order and recording responses in the score booklet.

Use of module A indicated that Jacintha’s symptoms did not meet the DSM-IV diagnostic criteria for mood episodes and therefore they also did not contribute to a diagnosis of a mood disorder. Module D was therefore not administered. Module F for anxiety disorders was administered next and this indicated that Jacintha’s symptoms did meet the criteria for a panic attack with symptoms of palpitations, trembling, shortness of breath, abdominal distress, dizziness, fear of losing control, fear of dying, tingling in the extremities and hot flashes. This information, when combined with Jacintha’s responses to a series of subsequent questions, indicated that Jacintha’s symptoms met the diagnostic criteria for panic disorder with agoraphobia (see Appendix 1). Jacintha’s symptoms did not meet the diagnostic criteria for any other anxiety disorders.

Jacintha was also assessed for personality disorders using the Structured Clinical Interview for DSM-IV Axis II Personality Disorders (First, Gibbon, Spitzer, Williams & Benjamin, 1997), which is not discussed here.

5.5.1.3. DSM-IV multiaxial evaluation.

The review of Jacintha’s symptoms led to the following diagnosis:

Axis I 300.21 Panic Disorder With Agoraphobia
Axis II  No diagnosis

Axis III  No diagnosis

Axis IV  Problems with primary support group
         (periodic separation from spouse)
         Problems related to social environment
         (inadequate social support)

Axis V  GAF = 35  (on assessment)

This diagnosis was fed back to Jacintha (and her family) at the end of the assessment session and it was explained the panic disorder typically responded well to cognitive-behaviour therapy. Confidence was expressed that the severity of Jacintha’s problems could be substantially decreased with a series of weekly appointments, although there remained an issue of getting Jacintha there. After lengthy discussion, Jacintha agreed to attend appointments at the clinic as long as Neil drove her there and picked her up again.

In the final stage of the assessment session, Jacintha was asked to help to prepare for the first therapy session by providing a record of panic episodes or periods of heightened anxiety as they occurred prior to the next appointment. Jacintha was provided with a table on which she was asked to record the time and date at which heightened feeling of anxiety or panic occurred. She was also asked to note what she was doing at the time and where she was, to evaluate the intensity of her panic attack and to attempt to identify any factors that may have triggered the feelings.

5.5.2. Treatment Program
The approach developed by Barlow and Cerny (1988) was used in this instance. The first third of their book/treatment manual provided an overview of the nature and consequences of panic, explored aetiological models, and discussed the diagnosis and assessment of panic disorder. The remainder of the book provided an overview of treatment components, a step-by-step protocol for therapy implementation and a case study. The treatment protocol is detailed, with each consultation being described in terms of specific treatment goals, procedures for achieving these goals, and review and planning tasks to be attended to before, during and following the session.

Barlow and Cerny's (1998) guidelines were followed as closely as possible and they provided a framework for session preparation and evaluation. However, although the approach has been manualised, it is not scripted and many minor variations to the treatment program undoubtedly occurred.

5.5.2.1. Session one. The primary goals of the first session were (a) to better understand Jacintha's experiences of panic, (b) to provide education on the nature of anxiety and panic disorder, (c) to detail the proposed treatment program and to present a rationale for it, and (d) to highlight the importance of homework and home practice for the progress of therapy.

The first part of the session was used to review Jacintha's anxiety and panic "diary". She had recorded multiple entries of anxiety for each day between appointments, but she identified only three of these as panic. The importance of these sheets to my understanding of her experiences and for monitoring the progress of therapy was emphasised and she was asked to continue them for the duration of therapy.
Discussion of her anxiety and panic record elicited the information that much of her anxiety centred on fears that she was no longer able to cope with the activities of daily living, and she that was worried that she might be approaching menopause. She therefore found it difficult to motivate herself in any area and she had also become hypervigilant with respect to a range of bodily sensations that she thought might be symptoms of menopause. The three panic attacks she reported were of a relatively short duration and she had rated them as moderate. Jacintha could not identify the triggers for any of these.

Jacintha’s experiences were discussed as presented on the homework sheets, but also in the context of direct education about the diagnostic criteria for panic and the nature of anxiety and its evolutionary basis in the “flight or fight” response. Particular attention was paid to the tripartite nature of anxiety, which combines physiological, cognitive and behavioural components that are irrevocably interconnected. These were discussed in detail. The discussion also provided the launching pad to explain the rationale for the proposed therapeutic approach of training the client in relaxation and breathing control procedures, training in monitoring the thinking processes that may lead to anxiety or panic, and behaviour modification through exposure therapy.

The final stages of the first session were set aside to point out how training in the clinic could be only generalised to other contexts in Jacintha’s life through the regular practice of new skills. The importance of homework to the generalisation process and to providing materials for us to work with was re-emphasised.

Finally, it was recommended that if Jacintha’s concerns about menopause persisted, she should discuss these with her general practitioner (GP) and accept a referral to an endocrinologist if the GP believed such investigation was warranted. She was also provided with educational material on menopause.
5.5.2.2. Session two. Session two began with a review of Jacintha’s anxiety and panic record. During the week prior to the second session she had recorded fifteen episodes of elevated anxiety, of which three were classified as panic attacks. She had been able to identify that one of the attacks may have been cued after she had rushed home from the local shops because she was late to cook tea. She said that she could have interpreted her increased respiration and pulse as reflecting heart problems that could result in a heart attack and then had been unable to cook. She said the other two attacks had occurred “for no reason” shortly after going to bed in the evening.

At this stage Jacintha was introduced to techniques for cognitive monitoring. An example was provided of hearing a noise in middle of the night. It was pointed out that what we thought the noise might be affected our physiological state and our behavioural responses. In this example, if the noise was interpreted as a burglar entering the house, the “flight or fight” response was triggered and arousal resulted, but if it was interpreted as the cat scratching to get into the house, no physiological response and no change to behaviour occurred. Jacintha was encouraged to explore her cognitive responses to the panic episode in which she believed panic may have been cued by her increased respiration and heartbeat. The notion of catastrophic interpretations was introduced and she was asked to include further information on her homework sheets for the following week about what she was thinking at the time when increased anxiety or panic occurred.

Most of the session was devoted to relaxation training using the 16-muscle group relaxation technique as outlined by Barlow and Cerny (1988). This was practiced in the clinic. Jacintha’s attention was repeatedly directed to the cognitive and physiological benefits of repeatedly tensing and relaxing muscle groups and it was pointed out how
relaxation was linked to lower rates of respiration. She found this experience satisfying, after initial reluctance to have a try, and she readily agreed to practice the technique twice a day for 20 minutes for the following week.

In concluding the session, Jacintha was reminded of the tripartite model of panic. It was pointed out that relaxation procedures were designed to help control physiological responses that could trigger panic and that cognitive monitoring was important in controlling cognitive responses to varied stimuli that could also lead to panic. The importance of practice was again emphasised and she was reminded to maintain her anxiety and panic records, adding also a note about her thoughts prior to and during panic attacks. She was reminded of the request to practice relaxation procedures twice daily, and was provided with an audio tape of the procedure to be used only if necessary. She was also asked to maintain a daily monitoring sheet for her relaxation exercises.

5.5.2.3. Session three. This session followed a similar pattern, with a review of Jacintha’s anxiety and panic records for the week and her relaxation practice record at the start of the session, followed by more work on relaxation training and cognitive monitoring.

Jacintha was taken through the relaxation procedure again, but on this occasion particular attention was paid to differentials in muscle tension through discrimination training. In this procedure, the client practices tensioning, then “half” tensioning and then “quarter” tensioning muscle groups around the face, neck and shoulders in order to enhance sensitivity to relatively lower levels of muscle tension. The rationale for this was that it is easier to use relaxation procedures to control anxieties before full tension builds up.
Jacintha’s limited records of cognitions associated with anxiety and panic were discussed and several were gently challenged with alternative explanations or simply requests for the evidence. Again the example of the noise in the night was discussed and Jacinha thereafter challenged several of the thoughts that she had recorded as occurring prior to and during panic episodes.

For homework, Jacinha was reminded to maintain her anxiety and panic record and her relaxation record, and to make sure she listed alternative ways of looking at the anxiety-provoking situation. She was also reminded to practice her relaxation procedures twice daily focussing on the discrimination training given in this session.

5.5.2.4. Sessions four and five. These sessions also began with a review of anxiety/panic and relaxation records for the week and associated discussion.

Following this, in the fourth session Jacinha was introduced to an abbreviated approach to progressive muscle relaxation using only eight muscle groups, with the rationale that this approach made it more “portable”. This was then practiced in the clinic with an emphasis on gradually extending the length of the tension-relaxation cycle and the coordination of relaxation with exhalation. In the fifth session the need to generalise the situations in which one could use relaxation procedures was discussed. Jacinha was encouraged to complete her relaxation homework in a variety of settings (e.g., different rooms of the house, in the park at the end of the street) during the following week.

More work was done on challenging dysfunctional cognitions in weeks four and five. This began in the fourth week with a discussion of some of the more common errors in thinking (e.g., overgeneralising, all-or-nothing thinking, absolutist thinking, confusing certainties and probabilities and jumping to conclusions without sufficient
evidence). Basic training in challenging such cognitions was provided and Jacintha was encouraged to look for and challenge such cognitions in her own daily life. In the fifth week, the notion of decatastrophising was examined closely and some of the basic techniques for achieving this were discussed. These included objectively examining the potential consequences of the feared event and seeking the evidence to support such conclusions, seeking other interpretations of the stimuli, and experimenting with different ways of responding behaviourally to the focus of the fear. Jacintha experienced many problems with this work and progress was slow and limited.

At the end of each session the work completed was summarised and Jacintha was shown how it could be integrated into her homework tasks. The importance of self-monitoring through homework tasks and skills practice was again emphasised.

5.5.2.5. Session six. The same review procedures were followed at the start of this session. It was noted that the number of reported anxiety events in Jacintha’s week was substantially reduced and that she had only had one episode that she had classified as panic. Particular attention was paid to reviewing techniques for challenging dysfunctional thinking, although Jacintha continued to have difficulty with these ideas until introduced to a problem-solving framework. This particular approach made sense to her and she was able to use it effectively to challenge various cognitions associated with anxiety and panic. The use of behavioural experiments to challenge anxiety was also discussed, and Jacintha was encouraged to try to undertake some in anxiety-provoking situations, particularly those where she believed she could not perform certain tasks.

Jacintha’s relaxation record was reviewed and difficulties in maintaining regular practice were discussed. Jacintha was then introduced to a 4-muscle-group tension-
relaxation procedure that should be practiced in a range of contexts and could be used at any time in any setting. She was encouraged to continue a regular practice schedule but to also experiment with using the technique when she noticed increased anxiety.

Barlow and Cerny (1988) introduced exposure procedures into the manualised treatment regime from session six onwards using an approach beginning with imaginal exposure, progressing through in vitro exposure and culminating with in vivo exposure. The first step in introducing the exposure procedures involved explaining the rationale for exposure therapy, i.e., that it provided opportunities to trial and practice relaxation and coping skills, to confront and challenge fears and find disconfirming evidence, and to break the association between panic cues and panic attacks. The second step, as recommended by Barlow and Cerny, required training in visualisation, a task that Jacintha found very difficult until some evocative music was used to augment the initial practices. The third component of this introduction was the collaborative development of a fear hierarchy organised around specific environmental and internal stimuli for later use in exposure procedures.

5.5.2.6. Sessions seven and eight. These sessions began with a review of the weekly relaxation-training chart. Basic principles of the 4-muscle-group approach were reviewed in session seven and in session eight this was augmented by training in “recall relaxation” (where the client enters a relaxed state by recall of what a relaxed state feels like without first going through tension-relaxation procedures). Jacintha found this quite easy and she was encouraged to practice the technique throughout the following week.

Anxiety and panic records were also reviewed in both sessions and Jacintha was encouraged to include more detail about the thoughts that she associated with anxiety.
After discussion of these thoughts, Jacintha was shown how to challenge her automatic thoughts in a different way by using self-instructional statements. She developed several of these to use (e.g., "it's OK, I only have to do one bit of this at a time", "I can do this even when I am anxious") and was encouraged to experiment with these in anxiety-provoking situations during the following week. In the eighth session she was also introduced to the technique of thought stopping and refocussing to deal with ruminative anxiety-provoking thoughts, a technique that requires the intentional disruption of the thought stream and the refocussing of attention on the task at hand.

The main focus of the seventh session was on exposure procedures. This involved deliberate efforts to induce panic in the clinical rooms through hyperventilation and to then manage them effectively by using controlled breathing. It also involved imaginal exposure procedures based on items in the fear hierarchy constructed in week six.

It was explained that panic and hyperventilation frequently co-occurred, and that hyperventilation, and the associated fluctuations of carbon dioxide in the blood stream, were thought to actually trigger panic attacks. Jacintha was encouraged to hyperventilate by breathing rapidly and then to compare the subjective response to feelings associated with panic. It was explained that, for some people, periods of accelerated heart beat or moments of dizziness could also precipitate panic attacks. Jacintha was then introduced to techniques to develop slow diaphragmatic breathing as a way of preventing panic from developing and as a way of managing it when it did begin.

Imaginal exposure techniques, based on a systematic desensitisation model, involved talking Jacintha through her fear hierarchy, practicing her coping skills when anxiety was elicited. After repeated re-exposure items on the lower end of the fear hierarchy effectively lost their capacity to evoke anxiety, and more challenging items
were used in exposure. This part of the session was quite successful and Jacintha understood how she could apply the same procedures with real-life anxiety-provoking situations. Again following the guidelines of Barlow and Cerny (1988), a homework task was developed using items from the fear hierarchy to guide self-managed in vivo exposure where Jacintha was to put herself in the feared situation and then practice coping using any of her increasing repertoire of self-management skills.

5.5.2.7. Sessions nine to twelve. The remainder of the intervention program was tapered to below the 15 sessions described by Barlow and Cerny (1988). This was the result of agency pressure on case throughput and the fact that Jacintha started to report that she was rarely having panic attacks (less than one per week) and that periods of elevated anxiety were progressively less common. Further, she reported that when she noticed feelings of anxiety, she was able to consciously utilise the techniques she had learnt in therapy to control against an escalation of symptoms.

Relaxation practices continued to be monitored in each session and Jacintha was encouraged to practice them in progressively more threatening situations. Weekly anxiety and panic records were also monitored and associated cognitions discussed, giving particular attention to those experiences where Jacintha had not been able to challenge her thoughts. Exposure procedures also continued using imaginal therapist-guided exposure, imaginal self-exposure and self-managed in vivo exposure. Jacintha was challenged to confront progressively more difficult tasks, with the advice that the more effectively she completed these specific tasks, the more effectively she would be able to deal with anxiety across the board.
5.5.2.8. At discharge. In the final session prior to discharge, plans were made for contingency management. Specifically it was agreed that Jacintha would re-contact the service if there was any major escalation in anxiety symptomatology and that the clinician would make follow up phone calls at three and six months. In addition, Neil attended for part of the final session where some of the strategies that had taught to Jacintha to use in anxiety management were reviewed. It was emphasised that the improvement in Jacintha’s symptoms was the result of better anxiety management skills rather than the absence of anxiety. It was also argued that anxiety was a common part of everyday life and that regular practice of the strategies that had been taught was essential to maintaining control over panic.

Therefore, Jacintha was encouraged to continue twice daily practice of her relaxation strategies and to use them deliberately for anxiety management when the need arose. She was also encouraged to continue her formal monitoring of anxiety symptoms for at least a further three months, and to use the strategies that had been taught for cognitive challenging and for the control of intrusive cognitions according to need. Finally she was encouraged to continue to actively expose herself to potentially anxiety-provoking situations, while using anxiety management strategies, in order to expand her repertoire of situations and behaviours that she was comfortable with.

Both Jacintha and Neil expressed a high degree of satisfaction with the final outcome of this series of therapy sessions. The steady reduction of the frequency and intensity of Jacintha’s panic attacks and experiences of general anxiety had been clear over the ten sessions, as had the reported gradual increase in her frequency and quality of interaction with neighbours and her ability to go freely where she wanted. What had not been so obvious was the substantial improvement to family dynamics and particularly the
quality of the relationship between Neil and Jacintha. At discharge, Jacintha’s symptoms no longer met the diagnostic criteria for Panic Disorder and the Global Assessment of Functioning was put at 68.

5.6. Conclusion

I found this exercise to be thoroughly worthwhile and in fact I suspect it has substantially and permanently change my clinical practices, both in making diagnostic assessments and in implementing treatment programs.

I found the use of the structured clinical interview format unwieldy initially, but as I reflected on it and had the opportunity to trial it out in other contexts, I came to perceive it as a powerful tool for controlling clinician biases, particularly in terms of selective data collection. As a junior clinician, I have also found that use of the SCID-IV-I is exceptionally useful for controlling against biases originating from knowledge about diagnoses made by other clinicians. Admittedly such controls are possible by other means but the SCID-IV-I format is highly convenient both for guiding interviews and recording responses.

The use of a treatment manual to inform treatment implementation (as opposed to using a treatment comprised of components that have been intuitively combined and may or may not be empirically validated) was also a valuable experience. The empirically supported treatment manual represents an additional step beyond the empirically validated treatments that are reported in the research literature in that it furnishes a degree of detail that is not possible in journals. This detail acts as a control to ensure that those approaches that have been validated are used in treatments as they were used in
research. Therefore, it removes some of the responsibility for subjective interpretation from the clinician and ensures that treatments with known outcome efficacy are used. In addition, it clearly saves the clinician time in researching treatments and preparing directly for sessions. This in turn leads to an increased economic viability of the approach.

Unfortunately there are two drawbacks that must be restated. Firstly there are only a small number of manualised treatments have been formally recognised as efficacious and these only deal with a limited range of psychiatric presentations. In addition, the structured clinical interview schedule that was used does not cover all DSM-IV diagnostic categories equally well and it does not cover some at all. Therefore it is unrealistic to consider that such approaches constitute the universal panacea.
CHAPTER SIX: CONCLUSION

6.1. Introduction

As noted in the first chapter there are no magic wands that provide an effortless and simple approach for improving the accuracy of clinical judgements in order to maximise treatment outcomes. However, ample empirical evidence exists that indicates there are various strategies and tools that can be used by conscientious clinicians to achieve this. If the use of such strategies and tools results in improved outcomes from the therapeutic endeavour then their use is ethically responsible and, in the longer term at least, likely to be economical. Common sources of error and strategies that have been identified as useful in controlling for errors in clinical judgement are described in Chapter One.

Many of the strategies discussed in Chapter One were exemplified in the series of case studies presented in Chapters Two to Five. Unfortunately, however, there are problems inherent to the use of case studies. Such problems apply in the present context where cases have been presented to illustrate how errors in clinical judgements may be minimised, and treatment efficacy enhanced, by particular decisions and actions undertaken by the clinician. However, the first problem is that the use of case studies does not allow for comparisons to be made between the approach used and other approaches that could be used. Therefore, they cannot be use to demonstrate that clinicians’ judgements are any better or any worse using one approach compared with another in the present context. Nor can they be used to demonstrate the efficacy of particular interventions compared with other treatments, or indeed, no treatment. Secondly, case studies do not permit the evaluation of the long-term consequences of
clinical judgements and/or therapeutic interventions, even if effectiveness evaluations made by the various clients are used to judge treatment outcomes.

However, the purpose of the case studies was not to prove that particular approaches to improving judgements and/or therapeutic outcomes worked better than other approaches. Rather, it was to provide examples of specific approaches the clinician can take in attempting to minimise errors of judgement and to enhance therapeutic outcome, given the data that has already been collected on clinical judgement and treatment efficacy.

6.2. The Case Studies – A Review

The first case focussed on the neuropsychological assessment of a young man previously diagnosed with schizophrenia. There were several aims that relate back to key points in Chapter One. Firstly, the case was chosen to exemplify how the research literature can be used to develop hypotheses, to define tools and to establish the overall parameters of an assessment program. It was also used to exemplify the use of reliable, valid instruments, and associated normative data, in addressing a highly specific referral question. Finally, the case study was chosen to demonstrate how multiple instruments can be used to converge on cognitive skills that are difficult to access and assess, and how informed clinical judgement may be used to reconcile findings that are inconsistent or contradictory.

The second case was presented in order to introduce the notion of empirically validated treatments in the context of a young man with PTSD. The central argument was that an awareness of available empirically validated treatments enabled the clinician
to be selective in the use of his or her professional time while providing superior quality therapy to the client. This was made possible by the use of efficacy research to streamline decisions in treatment selection and implementation.

The third case study explored individual and family issues through a family systems approach with respect to a boy with multiple problem behaviours. The case was chosen to illustrate the importance of flexibility in the clinician’s approach to theoretical and conceptual frameworks. It also demonstrated how systematic and comprehensive approaches to assessments more effectively inform treatments in some contexts. Finally, an approach was used that is useful for recording and partitioning information, hypotheses and speculations, thereby enabling the systematic generation of multiple explanatory hypotheses for investigation.

The final case study was presented to exemplify the use of a structured clinical interview format and a manualised treatment with respect to a woman diagnosed with Panic Disorder. It was argued that the use of the structured clinical interview format was a powerful tool for controlling for biases associated with selective data collection and biases originating from knowledge about diagnoses made by other clinicians. It was also argued that client outcomes could be enhanced by the use of a treatment manual to inform treatment selection and to guide treatment implementation. It was also noted that such approaches have the potential to save the clinician time.

6.3. Improving Clinical Judgements – Final Word

Unfortunately it is not possible to exemplify all of the strategies that a clinician may use to minimise errors in clinical judgements in a handful of case studies. Nor is it
possible to make explicit all of the factors that are involved in the clinical decision-making processes in the cases presented. However, it must be noted that the central requirement in order to minimise error is for clinicians be prepared to examine their decision-making processes systematically and critically, not just as beginning clinicians but throughout their working lives. They must become and remain scientist-practitioners, carefully researching approaches to assessments and treatments, examining all relevant evidence and evaluating the accuracy, acceptability and efficacy of assessments and treatment. They must be willing to accept that ongoing education is essential in fulfilling their obligations to provide the best quality treatments to all of their clients. In this way they are reminded, or made aware, of the efficacy of new developments in assessment and treatment, and are re-sensitised to biases and oversights that commonly lead to errors in clinical judgement. Clinicians must also be willing to examine their assumed theoretical perspectives critically, and they need to accept that different approaches may be useful in different contexts. Finally, clinicians need to look after their selves physically, socially and psychologically – if they fail to do so the quality of their professional work will be reduced and therapy outcomes will be compromised.

By identifying potential sources of bias, it is more likely that clinicians will be able to actively control for them – in one of many ways – no one of which is perfect. By being aware of quality assessment strategies and empirically validated treatment approaches, the clinician typically achieves an economy in the use of professional time and effort, while also adopting best practice in clinical settings.

Most critically, clinicians must learn and, thereafter, remember that empirical evidence clearly indicates that experience is not necessarily the best teacher and that ethical clinicians must remain committed to ongoing research, reflection and evaluation.
References


Barr, W. B., Bilder, R. M., Goldberg, E., & Kaplan, E. (1990). The neuropsychology of
schizophrenic speech. Journal of Communicative Disorders, 22, 327-349.


Cicchetti, & W. M. Grove (Eds.), *Thinking clearly about psychology* (pp. 217-232). Minneapolis: University of Minnesota Press.


person’s responses and performances as scientific enquiry into score meaning.

American Psychologist, 50, 741-749.


in hemispheric control of attention in schizophrenia. *Archives of General Psychiatry, 45,* 814-821.


Research in Social Work Practice, 8, 426-452.


Appendix One

SCID-CV Scoresheet

F. ANXIETY/OTHER DISORDERS

F. ANXIETY AND OTHER DISORDERS

PANIC DISORDER CRITERIA

F1
A. (1) recurrent unexpected panic attacks
Notes: First one Dec 2002. Drug reaction?

A. (2) at least one of the following: (b) worry about the implications of the
attack; (a) concern about having additional attacks; (c) a significant
change in behavior
Notes: Has attended hospital up to 20 times

F2
in last 5 m. worried about health. Progressively

F3
Four (or more) of the following panic attack symptoms developed abruptly
and reached a peak within 10 minutes
Notes:

F4
(1) palpitations

F5
(2) sweating

F6
(3) trembling or shaking

F7
(4) shortness of breath

F8
(5) choking

F9
(6) chest pain

F10
(7) nausea or abdominal distress

F11
(8) feeling dizzy

F12
(9) derealization or depersonalization

F13
(10) fear of losing control or going crazy

F14
(11) fear of dying

F15
(12) paresthesias

F16
(13) chills or hot flashes
F17. AT LEAST FOUR OF (1)-(13) ARE "+"

F18. C. Not due to a substance or a general medical condition (check p. 60)
WARNING: A "YES" answer to the interview question equals a "-" rating
Notes:
- No physical probes
- No drugs, alcohol
- 2 cups tea/day

F19. D. Not better accounted for by another mental disorder
Notes:
- No other reported history or Sx

F20. B. (1) the presence of Agoraphobia
Notes:
Presents to stay at home b/c of fear she will have attack when out. (Reports long history of social avoidance)

F21. B. (2) agoraphobic situations are avoided, endured with marked distress or with anxiety, or require a companion
Notes:
- Avoids leaving house, needs companion when she goes out

F22. B. (3) the anxiety or phobic avoidance is not better accounted for by another mental disorder
Notes:
- Exclude social phobia b/c attacks occur in social settings and in private settings
SCID-CV Scoresheet

F. ANXIETY/OTHER DISORDERS

F23 AGORAPHOBIA IS PRESENT
Check here ___ if criteria have been met in the past month.

300.21 Panic Disorder
With Agoraphobia

F25 p. 50

F24 AGORAPHOBIA IS ABSENT
Check here ___ if criteria have been met in the past month.

300.01 Panic Disorder
Without Agoraphobia

F25 p. 50