

## ACKNOWLEDGEMENTS

### THE UNIVERSITY OF HULL

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## ACKNOWLEDGEMENTS

### ABSTRACT

The effectiveness of psychological therapies has received increasing attention in recent years with a confident optimism building in the strong research evidence for its efficacy.

I wish to gratefully acknowledge the financial support of the former Dewsbury Health Care NHS Trust and the South West Yorkshire Mental Health NHS Trust. Thanks are due to my colleagues in the Department of Clinical Psychology and those in the wider trust who have supported this work with their time and expertise. In addition I would like to thank my academic supervisor Sue Clement for her stimulating and encouraging support.

Research on health service use the concept of the Decision Action Pathway Interactive Network (DAPIN) began to emerge. Health decisions are seen as taking place within an emerging decision/action pathway that is subject to a dynamic interaction network. Decisions are made by individuals based on rational calculations, with network interactions providing the mechanism by which the social factors influence the decision/action pathway. Empirical testing of DAPIN consisted of the construction of a patient self-report cost attached to therapy attendance (CATA) measure that could be used to determine whether people of low SES do in fact have higher network costs attached to attending therapy and whether this is related to higher attrition. A small sample of patients attending their first appointment completed CATA and those who unilaterally terminated in the first four sessions compared with those who continued therapy. Weak support was obtained for the DAPIN model. The Demand sub-scale of CATA proved to be a powerful predictor of unilateral termination from therapy (attrition) at the early stage of therapy attendance and provides a useful short tool for routine clinical practice. The small and idiosyncratic sample used meant that the DAPIN model could not be adequately tested. However, the evidence accumulated suggests that the model is worthy of more extensive testing.



**ABSTRACT**

The effectiveness of psychological therapies has received increasing attention in recent years with a confident optimism building in the strong research evidence for its efficacy. However, criticism comes from the study of attrition from therapy in routine clinical practice, which studies show can reach from 30 to 60%. Searches for the causes of attrition have uncovered a multitude of correlations but only socio-economic variables emerge as significant predictors of attrition. This present study proposes and tests a theoretical model with clear implications for practice and research. In reviewing three broad literatures on health service use the concept of the Decision Action Pathway Interactive Network (DAPIN) began to emerge. Health decisions are seen as taking place within an emerging decision/action pathway that is subject to a dynamic interaction network. Decisions are made by individuals based on rational calculations, with network interactions providing the mechanism by which the social factors influence the decision/action pathway. Empirical testing of DAPIN consisted of the construction of a patient self-report cost attached to therapy attendance (CATA) measure that could be used to determine whether people of low SES do in fact have higher network costs attached to attending therapy and whether this is related to higher attrition. A small sample of patients attending their first appointment completed CATA and those who unilaterally terminated in the first four sessions compared with those who continued therapy. Weak support was obtained for the DAPIN model. The Demand sub-scale of CATA proved to be a powerful predictor of unilateral termination from therapy (attrition) at the early stage of therapy attendance and provides a useful short tool for routine clinical practice. The small and idiosyncratic sample used meant that the DAPIN model could not be adequately tested. However, the evidence accumulated suggests that the model is worthy of more extensive testing.



# CONTENTS

1.	<b>Introduction</b>	
1.1	Brief survey of psychotherapy literature on attrition	11
1.1.1	Background	1
1.1.2	Extent and implications of attrition for psychotherapy	3
1.1.3	Methodological problems in attrition studies	7
1.1.4	Determinants of attrition	9
1.2	Rationale for investigations	
1.2.1	Need for a theory of attrition	12
1.2.2	The limits of psychotherapy attrition research	13
1.2.3	The social construction of attrition	14
1.2.4	Social models	15
1.2.5	Conceptualising the task	15
1.3	Overview of the remaining chapters.	
1.3.1	Review of theories and models relevant to attrition.	16
1.3.2	Development of a theory of attrition.	17
1.3.3	Development and construct validation of a measure.	18
1.3.4	Results and discussion.	19
2.	<b>Review of the literature.</b>	
2.1	Social cognitive models.	
2.1.1	Introduction.	21
2.1.2	Health belief model.	23
2.1.3	Health locus of control.	24
2.1.4	Protection Motivation Theory.	25
2.1.5	Theory of planned behaviour.	26
2.1.6	The Health Action Process Approach.	28
2.1.7	Conclusion.	29
2.2	Social network models	
2.2.1	Introduction.	31
2.2.2	Health Care Pathways.	32
2.2.3	Social network models.	35
2.2.4	Formal decision-making models.	36
2.2.5	Social Organisational Strategy.	37
2.2.6	Conclusion	40



2.3	Social causation models.	
2.3.1	Introduction.	41
2.3.2	Deprivation and psychological distress.	42
2.3.3	The internalisation of deprivation.	43
2.3.4	Humiliation and entrapment.	44
2.3.5	Deprivation and social power.	45
2.3.6	Psychotherapy as a hazard to people of low SES.	47
2.3.7	The irrelevance of psychotherapy to people of low SES.	49
2.3.8	Conclusion.	50
3.	<b>Constructing a theory of attrition.</b>	
3.1	The Decision Action Pathway Interactive Network.	
3.1.1	Introduction.	51
3.1.2	The individual as decision maker.	52
3.1.3	The decision/action pathway.	53
3.1.4	Social Determinism.	59
3.1.5	Reciprocal influence.	60
3.1.6	The Interactive Network.	62
3.1.7	Decision Action Pathway Interactive Network.	63
4.	<b>Development and validation of a measure of the cost attached to therapy attendance (CATA).</b>	
4.1	Theoretical Considerations.	
4.1.1	Introduction	64
4.1.2	Modern Construct-oriented Scale Construction.	65
4.1.3	Reliability and validity.	66
4.1.4	Construct validation.	69
4.2	Development of a Scale (CATA)	
4.2.1	Introduction and outline stages.	71
4.2.2	Principles guiding scale construction.	72
4.2.3	Summary of stages (a) and (b).	74
4.2.4	Stage (c) Generating a universe of items.	74
4.2.5	Stage (d) Writing questionnaire items.	77
4.2.6	Stage (e) Constructing a scale.	82
4.2.7	Stage (f) Gathering and analysing data	87



4.3	Stage (g) Testing the model	
4.3.1	Introduction	98
4.3.2	Sample of patients	101
4.3.3	Data	101
4.3.4	Convergent and Discriminant Validity	102
4.3.5	Predictive validity of CATA 32	109
4.3.6	Conclusions from testing the model	114
<b>5.</b>	<b>Discussion</b>	
5.1	Review of the DAPIN model	
5.1.1	Introduction	117
5.1.2	Critique of DAPIN	120
5.2.3	Implications of DAPIN	124
5.2	Review of the process of theory and construct development	
5.2.1	Introduction	127
5.2.2	Strategy employed	127
5.2.3	The importance of logic	130
5.2.4	The term attrition made problematic	132
5.2.5	Decision making made problematic	133
5.2.6	The individual disconnected from the environment	138
5.2.7	DIN and the decision action pathway	139
5.2.8	Theory generated items	140
5.2.9	Attribution – the actor and the observer	142
5.2.10	Problems with collecting and analysing data	145
5.2.11	Limits to testing the model	148
5.2.12	Further research	150
	<b>REFERENCES</b>	153
	<b>APPENDICES</b>	165



## **CHAPTER 1 - INTRODUCTION**

The investigations described in this thesis were undertaken to develop a theory to explain attrition from psychotherapy in the light of evidence pointing to a causative role of social deprivation and to develop a self – report measure to predict people at risk.

The aim of this introduction is to:

- 1) Survey briefly the issues related to attrition from psychotherapy.
- 2) Offer a rationale for the investigation undertaken.
- 3) Provide an overview of the remaining chapters.

### **1.1 Brief survey of psychotherapy literature**

#### **1.1.1 Background**

The effectiveness of psychological therapies has received increasing attention in recent years. The introduction of clinical governance (Department of Health, 1997) has promoted the increasing use of evidence-based practice philosophy in all areas of health care in the NHS. Recent publications such as “What Works for Whom” (Roth and Fonaggy, 1996) have given considerable reassurance for the efficacy of psychological therapies based on research trials. A year earlier, Howard et al (1995) confidently answered their own question, “*Does Psychotherapy work?*” with the assertion: “*No other medical intervention has anywhere near the empirical scientific support that psychotherapy enjoys*”. More recently the DOH Clinical Practice Guidelines in



Psychological Therapies and Counselling (2001) confirmed this view with the statement: *“There is strong research evidence of the potential benefit of psychological treatment to individuals with a wide range of mental health problems.”*

Despite this confident optimism, criticism of psychotherapy continues to come from many sources. Central to most criticisms is the relevance of clinical trials to routine clinical practice. Essentially, the difficulty is that the experimental conditions of trials are often so far removed from everyday practice that the applicability of the information becomes suspect (Pilgrim, 1997). For example, Robinson, Berman and Neimeyer (1990) reviewed 58 studies reporting controlled clinical trials for the psychotherapeutic treatment of depression. In 28 (48%) of the studies, clients were solicited from the community through media announcement. Another 14 (24%) relied on students solicited in a university setting and 4 studies (16%) used traditionally referred outpatients. In the remaining 7 studies (12%), either the referral source was not reported or both solicited and traditionally referred clients were included.

Although all the studies were on the treatment of depression, the screening of clients for inclusion varied considerably. In 20 studies (35%), clients were required to meet formal diagnostic criteria for depressive disorder. The other 38 studies (65%) used less stringent selection criteria, such as scores on self-report measures of depression. The typical client was a middle-aged woman who was experiencing moderate depression as measured by the Beck Depression Inventory (BDI). The average BDI score was 22.7 with a range of 12 to 30.

Thus, in outcome trials, patients are selected to meet strict criteria, treatment fidelity is ensured, contamination variables such as dropouts are eliminated and specific symptom



reduction outcomes are investigated. By contrast, in actual services, treatment fidelity cannot be assumed, people drop out of therapy and their presenting problems are often complex and not limited to specific symptoms. This has led some commentators to draw very pessimistic conclusions. For example, Brugha and Lindsay (1996) argue that trials are “... conducted in unrepresentative ways on unrepresentative and willing subjects. Should it be surprising that, perhaps, the same ‘good outcomes’ might not occur in routine clinical practice”?

However, perhaps the most damning criticism as to the efficacy of psychotherapy comes from the study of attrition or dropout from therapy in routine clinical practice. High levels of attrition seem to have been overlooked by those who point to outcomes in clinical trials as support for the efficacy of psychotherapy. As observed by Hunt and Andrews (1992), “The finding that dropouts are ubiquitous in psychotherapy is very damaging for if patients do not stay for treatment then there is little point in developing effective treatment”.

### **1.1.2 Extent and implications of attrition for psychotherapy**

Attrition is a major problem for psychotherapy service with levels reaching as high as 60% in everyday service delivery systems. For example, reviews of the psychotherapy dropout literature (Baekeland and Lundwell, 1975; Eiduson, 1968; Garfield, 1986) indicate that between 30% and 60% of psychotherapy outpatients terminate prematurely. In a more recent meta-analysis of 125 psychotherapy dropout studies Wierzbicki and Pekarik (1993) found a mean rate of 46.86%.



Although there are difficulties in defining attrition it is generally viewed as a negative outcome both for the individual patient and for the service provider.

Not only do people drop out of therapy, but also the majority do so in the very early stages before a significant treatment benefit is likely. A meta analysis study involving 2400 patients showed that eight therapy sessions were required before 50% of patients showed measurable improvement (Howard, Kopta, Krause and Orlinsky, 1986).

Garfield (1986) reviewed 18 studies of intended long-term psychotherapy and found that the median client attended between 5 and 8 sessions. A review by Howard et al (1998) produced similar data and concluded that the majority of psychotherapy outpatients receive relatively few sessions of treatment. Garfield (1994) reported that 23% to 49% of cases fail to attend therapy sessions following intake interview and that two-thirds of cases unilaterally terminate prior to 10 sessions.

Relatively few studies have directly investigated treatment outcome for dropouts, but those that have typically report a pattern of poor outcome (Pekarik, 1986) and low client satisfaction with the service received (Lebow, 1982), especially when dropout occurs within the first few sessions.

Psychotherapy dropouts pose clinical, financial and morale problems for mental health professionals. Significant among them are reduced treatment efficiency and decreased cost effectiveness (Garfield, 1986). For example, high client turnover increases the proportion of time staff must devote to paperwork and premature termination can be demoralising for the therapist, who may believe that they have failed or were rejected by the patient. This may in turn impair clinicians' self-confidence and effectiveness (Pekarik, 1985 (a); Sledge, Moras, Hartley and Levine, 1990).



Despite this, attrition has not been given the same status in psychotherapy research as other outcome measures. Often it is seen as a 'nuisance' in psychotherapy research that has to be statistically adjusted for and not a measure in itself (Philips, 1995). Of all the papers reviewed in this study only two were found to advocate that attrition be seen as an outcome measure (Philips, 1995; Hunt and Andrews, 1992).

In an extensive study of attrition from psychotherapy research and possible remedies for its potential threat to internal and external validity, Flick (1988) analysed 37 clinical studies in Volume 53 of the Journal of Consulting and Clinical Psychology. Of these 37 studies, 13 included information about the number of people who were eligible or contracted to participate in the study, while 24 did not. Thus nearly two-thirds of studies did not provide any information about the possibility that the sample might have had problems due to pre-inclusion attrition.

Of the 37 studies, 26 were studies of clinical intervention. Out of these, seven did not report any attrition information. Six of the studies reported attrition rates for the complete sample, but failed to report attrition by groups. Reporting attrition only for the sample as a whole does not provide important information about biases that attrition may produce if it is greater in one group than the other. Thirteen reported attrition for each group separately. Six of these studies had an attrition rate of at least 20% in one group, and four of these reported attrition of at least 30% in one group. In most cases, the rate of dropouts was simply reported, and no explanation was offered to explain how it might affect the results.



Flick went on to critically review common methods used to control for attrition. She rejected some of the more simplistic notions such as comparing completers and non-completers on basic demographic variables or equal distribution of attrition across groups on the basis that this tells us nothing with certainty that is relevant.

The problem of lack of accurate reporting of attrition in psychotherapy studies seems to have continued up to present, so much so that Harris (1998) takes infrequent reporting of attrition as a given in her analysis of the subject. Whilst she laments the general lack of quality research into the area of attrition, she makes a plea for greater emphasis to be placed on the causal mechanism leading to attrition and the reporting of attrition:

*“At the very least, researchers should initiate the routine reporting of attrition-relevant data in all treatment studies... Optimally this should include program inclusion and termination criteria; and for each condition, a distribution revealing how many cases terminated early, and for what reasons”.*

This failure to report attrition adequately must raise questions about how effective interventions in clinical trials really are. Whilst psychotherapy research gives an optimistic view of the efficacy of psychotherapy, the study of attrition challenges this. Clinical trials tend to play down the implications of attrition for their results, whereas studies of attrition in clinical practice suggest that it will be the most likely outcome for many, if not most people.

Thus the evidence suggests that attrition is not just ‘dropping out’ of therapy. Rather it is a failure of the system to deliver what it promises for a significant number of people. It also points to the limitations of applying most psychotherapy research to routine



clinical practice. High levels of attrition imply failure of the system irrespective of the quality of outcome for the relatively few who stay the full course of therapy.

### 1.1.3 Methodological problems in attrition studies

Most published reports of attrition from therapy have consisted of attempts to describe its extent and cause. However, while the high rate of dropout has been well documented, information on the causes of dropout is quite weak. Several investigators (Brandt, 1965; Garfield, 1986; Pekarik, 1985(a), 1985(b)) have noted that the attrition literature is replete with conflicting findings, replication failures and generally small differences between dropouts and completers. When trying to make sense of attrition from published studies the researcher is faced with a number of problems including variations in definitions of attrition used, a plethora of weak post-hoc correlational studies and a few (but methodologically weak) empirical studies.

The variety of definitions for attrition is a major confusing factor. In many studies, failure to attend a specified number of sessions is the criterion (Pekarik, 1985(a)). Unfortunately, researchers have used different cut-offs with the consequence that patients considered drop-outs in one study are viewed as continuers in another (Garfield, 1994). However, even if all researchers used the same cut-off, results would still be misleading as duration is not necessarily related to drop-out status. Early termination may be composed of early dropouts and early appropriate terminators (Pekarik, 1985(b)).

Two other criteria used have been, failure to keep the last appointment scheduled and therapist judgement as to the meaning of the unilateral termination. Both of these were



investigated by Pekarik, 1985(b). He found that failure to keep the last appointment scheduled can misclassify (as drop-outs) appropriate terminations that would be discharged by the therapist within a few sessions and symptomatic patients (as appropriate terminators) when they refuse to schedule another session and declare treatment finished. Interestingly, despite therapists' tendencies to be pessimistic with regards to dropouts (Reis and Brown, 1999), their clinical judgement was shown to be more useful than other criteria for defining attrition. Analyses revealed that dropouts differed from completers on 11 out of 18 client and therapist variables when the criterion was therapist judgement, whereas no differences at all emerged when the criterion used was duration.

Other problems arise over which stage of dropping out is included in the attrition research. For example, Gould et al (1985) reported a dropout rate of 11% referring to those who attended an initial screening interview but later failed to attend a later evaluation interview. In contrast Novick et al (1981) reported a rate of 85.4%, obtained by including all cases of non-agreed termination at any stage of the referral to treatment uptake process. Cottrell et al (1988) reported a dropout rate of 53% by including all non-agreed termination prior to agreed discharge including early and late treatment dropouts. As pointed out by Morton (1995), one might imagine that the reasons for dropping out before the first appointment would be different from those of someone who drops out after the first appointment and different again to a person who unilaterally terminates after several months of therapy. However, studies do not routinely distinguish between these groups or seek to explain their relationship to one another.



Besides inadequate definitions, the majority of studies examining attrition have concentrated on individual characteristics of patients or therapists. This is perhaps unsurprising as this data is often routinely collected at the time of referral. Thus it is common for this area of research to be concerned with post-hoc analysis of data, as opposed to being specifically designed to measure factors which might impinge on attrition. However, these factors are often inconsistent and of questionable significance as an explanation of non-attendance taken in isolation (Carpenter et al, 1981; Orme and Boswell, 1991; Morton, 1995).

Perhaps due to the difficulty and discomfort of contacting clients who have rejected the service, the simple and logical expedient of asking dropouts why they terminated has been rarely used (Pekarik, 1992). The few studies that have done so have proposed interesting results but are generally methodically weak. Perceived improvement, practical obstacles and dissatisfaction with service were identified as the most common reasons for dropping out (Acosta, 1980; Garfield, 1963; Pekarik, 1983; Hughes, 1995; Morton, 1995). However, small numbers, possible sampling bias and lack of separate analysis for adult and child drop-outs despite research showing different variables associated with adult and child termination (Pekarik and Stephenson, 1988) limit the studies in one way or another.

#### **1.1.4 Determinants of attrition.**

Despite the problems listed above, research in the area of attrition has flourished. Wierzbicki and Pekarik (1993) identified 125 studies published between 1974 and 1990 involving analyses of attrition from psychotherapy. Harris (1998) reported 150 articles



for the years 1990-1995 inclusive that directly explored attrition or retention in treatment programmes with the majority in the field of addiction research. Interest in the study of attrition continues: a search of PSYCLIT for the year 1995-2000 revealed 26 new articles specifically looking at attrition by adults from psychotherapy and excluding addiction studies, men who batter and children. A hand search of British Journal of Clinical Psychology, British Journal of Medical Psychology, British Journal of Psychiatry and Clinical Psychology Forum for the same period revealed a further five articles. A summary of the search procedure is described in appendix F.

Searches for the causes of attrition have led researchers to uncover a multitude of correlations. Overviews of published works on attrition in the field of adult psychotherapy help to illustrate the range and complexity of variables associated with discontinuation of treatment (Baekeland and Lundswall, 1975; Garfield, 1994; Wierzbicki and Pekarik, 1993). These variables can be conceptualised as client related, therapist related or programme related factors. Only some of the more frequently reported variables are listed here.

Client-related factors include minority status, age, income level, drug dependence, type of substance abuse, occupational stability, extent of social isolation, psychiatric diagnosis, impulsivity, expectations regarding therapy, psychological mindedness, level of academic functioning, previous treatment attempts and level of motivation.

In addition these studies describe a variety of factors related to the person providing treatment that influence attrition. These include gender, ethnocentricity, expectation for client improvement, empathy towards client and skill level.



Programme-related factors that influence attrition include length of delay until first appointment, policy regarding the use of drugs in therapy and source of program and referral.

Despite this array of correlations, very few variables emerge as significant predictors of attrition when attrition studies are aggregated. In their meta-analysis of 125 studies of attrition from psychotherapy, Wierzbicki and Pekarik (1993) looked at 32 variables but found significant effect sizes for just three variables (racial status, education and income).

Reviewers (Garfield, 1994; Harris, 1998) counsel caution and question simplistic analyses that largely rely upon simple correlations and fail to control for confounding variables or to clarify interactions between variables, such as between client attributes and the therapists' socio-economic class, skill or personality. Studies that have investigated more complex variables, such as clients' intentions and expectations and client-therapist interactions, have found them to be far more powerfully related to attrition than simple client and therapist variables. Pekarik and colleagues showed that clients' expected treatment duration was a better predictor of actual treatment duration than either problem severity or several client and therapist demographic variables (Pekarik, 1991; Pekarik and Stephenson, 1988; Pekarik and Wierzbicki, 1986) and Pekarik (1988) showed that attrition increased three-fold when the therapists failed to identify accurately the clients' conceptualisation of the problem.

Other researchers, for example, Armbruster and Kazdin (1994) have highlighted the absence of thoughtful, well-constructed theories of underlying causes of attrition. They note, "*the rationale for selecting various predictors or dependent measures ... is rarely*



*clear". Harris (1998) notes "Consequently, despite considerable empirical substantiation of the relationship between premature termination from treatment and clients' race, education and socio-economic status, the precise causal mechanisms driving minorities, persons with low education and individual in poverty to leave treatment early has yet to be determined". She goes on to conclude, "It is necessary for investigation to move beyond research on correlations of attrition to propose and test theoretical models with clearer implications for preventing attrition".*

Taken together, the above studies lend themselves to several conclusions. First, attrition from therapy is a major problem and suggests the service delivery system fails to meet the needs of a significant number of people who are referred for treatment. Second, there are several consistent factors associated with attrition. The highest rates are associated with three socio-economic (SES) factors: ethnic minority status, lower income and lower education. Third, the research suggests that there probably exists a complex relationship between these three variables and other client variables, therapist variables and programme variables. Furthermore, there is currently no theoretical model that describes the relationship between attrition from therapy and socio-economic status.

## **1.2 Rationale for the investigations reported**

### **1.2.1 The need for a theory of attrition**

This current study started like most psychological research with certain observations to be explained. Many people in obvious need either do not take up the offer of therapy or drop out very soon after starting. A review of the psychotherapy attrition literature



provided a confusing array of correlations, many of which contradicted each other or were not replicated. Only the observation that attrition from therapy was related to indicators of low socio-economic status stood out as a robust finding. However, this was left hanging with no causal explanation offered.

Third, related to the previous point, there is virtually no mention of other related

The lack of a clear theoretical explanation of attrition is a major problem for psychotherapy. Without this there is no context either in which to place those studies that claim to reduce attrition or in which to generate new strategies or interventions to be tested. This failing is psychotherapy's Achilles' heel for anyone wanting to question its true effectiveness in clinical practice.

The investigations to be described were stimulated by the need to develop a theory of attrition for psychotherapy.

### **1.2.2 The limits of psychotherapy attrition research**

In addition to the methodological criticisms of attrition research outlined above, the researcher is struck by certain 'soft' features of the research that demonstrated a bias towards only certain types of explanations.

decision is socially conditioned and is problematic for psychotherapy research into

First, there seems to be a lack of appreciation of people who stop attending therapy as individuals who are active in trying to manage their lives. People 'drop out' of therapy rather than actively choose not to attend or choose to adopt an alternative strategy.

psychotherapy research. Because of this, when constructing a theory of attrition it is

Second, there is a failure to place the practice of psychotherapy within the systems context. Apart from a small number of studies, people are not seen as having lives with



commitments and demands and other relationships including other sources of help and support. For example, their relationship to other professionals and social care systems is noticeable by its absence.

Third, related to the previous point, there is virtually no mention of other related research in healthcare even though the vast literature on healthcare utilisation is based on psychological theories. This seems to have contributed to the major seemingly unrecognised or unacknowledged problem in the psychotherapy attrition literature, of failing to distinguish between possible general effects on health care behaviour and effects specific to attending psychotherapy.

It is these observations that have heavily influenced the directions of the investigation described.

### **1.2.3 The social construction of attrition**

Attrition from therapy is seen as a choice made by an individual to act in a particular way and either not to attend therapy at all or to stop attending once therapy is underway. Thus the individual must be at the centre of any proposed theory. However, this decision is socially conditioned and is problematic for psychotherapy research into attrition. When considering the factors that patients may use in their decision making process, the one thing that stands out from attrition research is that the most robust predictors of attrition are social, as opposed to the intra psychic variables that dominate psychotherapy research. Because of this, when constructing a theory of attrition it is necessary to step outside of the micro system analysis of psychotherapy research and look to a macro system or social models of behaviour.



#### 1.2.4 Social models

Social models of health-care utilization stem from efforts to understand the relationship between epidemiological findings regarding the distribution of health problems in society and the use of health facilities. Although social deprivation is associated with a wide range of health problems (Carroll et al, 1994), the Black Report (Townsend and Davidson, 1982) notes that deprived groups often have poorer access to health care relative to their needs than the more advantaged. In relation to mental health, the findings repeatedly demonstrate that those at the very bottom of the social system experience mental health problems more often (Harrison et al, 1998) and are less likely to receive professional mental health care ((Kessler and Cleary, 1980, Link and Dohrenwend, 1980), than those who are more fortunate.

#### 1.2.5 Conceptualising the task

In order to conceptualise the task of constructing a theory of attrition that includes both the individual and the social system, it is necessary to operationalise the key elements that require explanation. Thus there are three basic questions that should concern us when considering the place of SES in the understanding of attrition from psychotherapy:

1. What is the mechanism within the individual on which SES operates that makes them stop attending psychotherapy?
2. What is it in the social environment that makes people of low SES more likely to stop attending?



3. What are the mechanisms in the social environment that produce or maintain something in the person of low SES that makes them more likely to stop attending?

It is these three basic questions that guide the investigations reported here.

### **1.3 Overview of the remaining chapters**

#### **1.3.1 Review of theories and models relevant to attrition**

Outside of the psychotherapy literature considerable attention has been given over the years to differential use of health-care facilities. Models have been developed that emphasise more or less the social context and the effect this has on the individual in relation to health care choices or health behaviours.

There are three broad literatures on health service use that to date are largely unrelated to each other but relevant to connecting individual choice to its social context.

#### **Socio-Cognitive Models**

Socio-Cognitive Models (SCMs) have a long history going back to the Health Belief Model (Rosenstock, 1966). The social part of these models emphasises the limitations placed on people's actions by their social contacts. However, the main emphasis is placed upon the individual as a rational decision-maker.



## **Social Network Models**

Social Network Models have their roots in medical sociology and anthropology. Here, health decisions are seen as embedded with the person's social life. It is the social contacts (or network interactions) that influence how a situation is defined and what, if anything, should be done about it.

## **Social Causation Models**

Social Causation Models seek to explain both the socio-economic gradient for ill health and health care utilisation in terms of the very different life experiences of people in different strata of society. In particular they emphasise the irrelevance of much psychotherapy to people of lower SES because of their relative lack of power in being able to operate on their proximal environment.

### **1.3.2 Development of a theory of attrition**

In reviewing the three broad literatures described above, the concept of the Decision Action Pathway Interactive Network (DAPIN) began to emerge. Health decisions including the decision not to attend therapy are seen as taking place within an emerging decision/action pathway that is subject to a dynamic interaction network.

Decisions are seen as being made by individuals based on rational calculations. There must be an expectancy that the outcome of therapy will be positive, but also the cost of undertaking therapy must not be too high. It is this decision-making mechanism within the individual that SES operates on to determine whether the individual will continue



with therapy or not. However, decisions and actions are not seen as separate but, rather, constantly emerging under the influence of each other, in what becomes a decision/action pathway.

The network model provides the mechanism by which the social factors influence the decision/action pathway through network interactions. Domains of the network include the social environment, therapy system, family and friends and also the individual themselves. This is a network of reciprocal influence where action in one part of the network will affect other parts. Thus, for example, demands made at home or at work will be transmitted via the mechanism of the network to affect therapy attendance.

Finally, socio-causation models add 'power' as the substance within the social environment that determines who is likely to attend or drop out of therapy. It is the resources and demands within the network that define who will decide to drop out of therapy. People of lower SES have in general fewer resources and greater demands and are thus disadvantaged in the face of the demands of attending therapy.

### **1.3.3 Development and construct validation of a measure**

Having generated a theory to explain the relationship between low SES and attrition, the next stage was to subject it to empirical testing. In order to do this, abstract concepts had to be translated into concrete observable operations or measures. The method employed here was the construction of a patient self-report cost attached to therapy attendance (CATA) measure that could be used to determine whether people of low SES do in fact have higher network costs attached to attending therapy and whether this is related to higher attrition.



Modern methods of construct validation are seen as an integral part of theory building. That was the case here where a sequence of stages thought necessary to the process of construct validation ( John and Benet-Martinez, 2000) guides the researcher to build a body of evidence. According to this approach the validity of a particular measure can never be established but it is always an enduring body of evidence. Validity evidence cannot be represented by a single quantitative index but only by qualitative summaries.

Weak support was obtained for the DAPIN model. Methodological shortcomings were noted. The Demand sub-scale of CATA proved to be a powerful predictor of unilateral termination from therapy (attrition) at the early stage of therapy attendance and provides a useful short tool for routine clinical practice.

#### **1.3.4 Discussion**

The DAPIN model is reviewed in the light of the evidence. It is proposed that DAPIN is potentially an important development in understanding health-care utilisation and unilateral termination and is an advance on previous models. DAPIN raises implications for both psychotherapy practice and research.

Problems confronted by the researcher due to untested assumptions and limitations inherent in basic concepts employed in therapy and health-care utilisation are reviewed. This process highlighted the shortcomings and lack of social perspective employed in models of therapy and psychological research into healthcare utilisation such as SCMs.



The process employed in the present study is reviewed. Serious problems of patient sampling were noted. The small and idiosyncratic sample used meant that the DAPIN model could not be adequately tested. However, the evidence accumulated suggests that the model is worthy of more extensive testing.

For a criticism that incorporates the SES factors described earlier, it is necessary to broaden the field of view to take account of other relevant literatures.

The three broad literatures to be reviewed can be categorised as follows:

1. Socio-cognitive models
2. Social network models
3. Social cognitive models

These three literatures give an insight into the answers to the three questions posed in chapter one as necessary for understanding the place of SES in nutrition from psychotherapy. These then provide the basis for proposing an integrated model of nutrition in the next chapter.

## 2.1. Social Cognitive Models

### 2.1.1. Introduction

Social cognitive models (SCMs), describing what are the important cognitions and their interrelationships in the regulation of behaviours, have been developed in order to predict health related behaviours and outcomes including various forms of non-compliance.



## CHAPTER 2 - REVIEW OF LITERATURE

In order to search for a comprehensive explanation for attrition that incorporates the SES factors described earlier, it is necessary to broaden the field of view to take account of other relevant literatures.

The three broad literatures to be reviewed can be categorised as follows:

1. Socio-cognitive models
2. Social network models
3. Social causation models

These three literatures give an insight into the answers to the three questions posed in chapter one as necessary for understanding the place of SES in attrition from psychotherapy. These then provide the basis for proposing an integrated model of attrition in the next chapter.

### 2.1 Social Cognitive Models

#### 2.1.1 Introduction

Social cognitive models (SCMs), describing what are the important cognitions and their interrelationships in the regulation of behaviours, have been developed in order to predict health related behaviours and outcomes including various forms of non-compliance.



Underlying these models are two major assumptions. First as Schneider (1991) has pointed out, “social behaviour is best understood as a function of people’s perceptions of reality, rather than as a function of an objective description of the stimulus environment”.

Second, the models emphasise the rationality of human behaviour. The health behaviours to be predicted are considered to be the end result of a rational decision-making process based upon deliberate, systematic processing of available information (Conner and Norman, 1996). Most assume that behaviour and decisions are based on cost-benefit analysis of the likely outcomes of differing courses of action. As such they have roots going back to expectancy-value theory (Peak, 1955) and subjective expected utility theory (Edwards 1954).

The essence of these two basic assumptions is summarised by Bandura (1986).

According to him the likelihood that people will adopt a valued health behaviour or change detrimental behaviour depends upon three subjective cognitions:

- a) The expectancy that the present situation represents a threat to health
- b) The expectancy that behavioural change will reduce the threat
- c) The expectancy that one is sufficiently competent to do what is required.

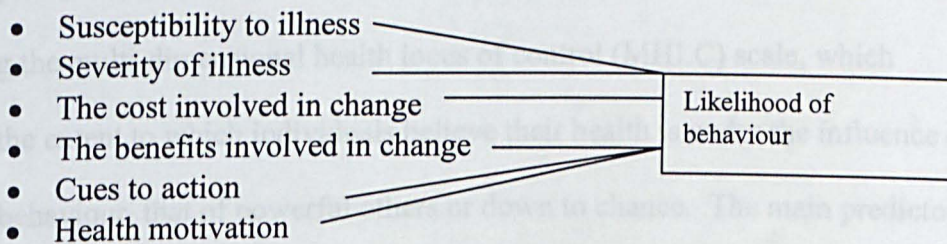
These two basic assumptions of subjectivity and rationality underlie many of the SCM models used, including the health belief model, health locus of control, protection motivation theory, theory of reasoned action, theory of planned behaviour and health action process approach that are reviewed here.



### 2.1.2 Health Belief Model

The health belief model (HMB) was developed initially by Rosenstock (1966) in order to predict preventative health behaviours. However, it has been further developed throughout the 1970s and 1980s and extended to include behavioural responses to treatment in acutely and chronically ill patients as well as a wide variety of health related behaviours.

The health belief model predicts that behaviour is a result of a set of core beliefs. These are the individual's perceptions of:



**Figure 2.1 Basics of the Health Belief Model.**

The precise way in which these variables combine to produce behaviour has never been precisely specified and thus the HBM is frequently tested as six independent predictors of behaviour (see Conner and Norman, 1996). Despite this lack of clear explication, the HBM has been widely used and has met with moderate success in predicting a range of health behaviours (for review see Sheeram and Abraham 1996). For example, attending screening in cervical cancer, Orbell et al (1995); risk behaviour and smoking cessation, Stacey and Lloyd (1990); health behaviour compliance with diet and exercise, Langlie



(1977); sick role and diabetes, Bradley et al (1987); utilisation of lithium clinics, Pan and Tatum (1989).

### 2.1.3 Health locus of control

The health locus of control model has its origins in Rotter's (1954) social learning theory, which says that the likelihood of a behaviour occurring in a given situation is a function of the individual's expectancy that the behaviour will lead to a particular reinforcement and the extent to which the reinforcement is valued. Rotter (1966) later developed the locus of control construct as a generalised expectancy with people with internal locus of control believing that events are a consequence of their own actions whereas people with external locus of control believe that events are determined by factors beyond their control. Wallston et al (1978) built on Rotter's earlier work by developing the multi-dimensional health locus of control (MHLC) scale, which measures the extent to which individuals believe their health is under the influence of their own behaviour, that of powerful others or down to chance. The main predictor for the HLC theory is that 'internals' on the MHLC scale should be more likely to engage in health behaviours than 'externals'.

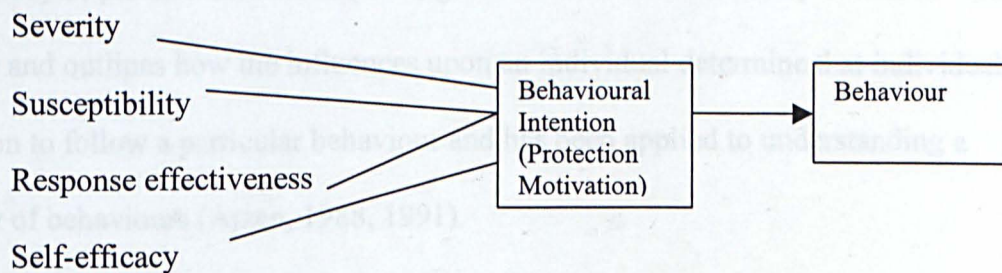
Several major reviews of the literature, linking locus of control beliefs to health behaviour, exist but the findings of Wallston and Wallston (1982) are summarised briefly here. Only those studies relevant to the present study are quoted. Internal locus of control has been linked to the following: dietary restrictions and keeping medical appointments among kidney patients (Weaver, 1972); the ability to lose weight (Balch and Ross, 1975); quitting smoking (Steffy, Meichenbaum and Best, 1970); seatbelt use (Williams, 1972) and physical exercise (Sonstroem & Walker, 1973). However, the



HLC construct has been found to be a relatively weak predictor of health behaviour, accounting for only small amounts of variance in health behaviour, even when considered in conjunction with the value people place upon good health (Wallston, 1992).

#### 2.1.4 Protection Motivation Theory (PMT)

Rogers (1975) developed the protection motivation theory that expanded the HBM. The original theory claimed that health-related behaviours are a product of four components:



**Figure 2.2 Basics of the Protection Motivation Theory.**

These components predict behavioural intentions that are related to behaviour. More recently Rogers (1985) has added a fifth component, fear, to the model. The PMT describes severity, susceptibility and fear as relating to threat appraisal and response effectiveness and self-efficacy as relating to coping appraisal. Adaptive responses are more likely if the individual perceives him or herself to be at threat from a serious condition to which they are vulnerable and that they can perform the response which will be effective in reducing the risk.



PMT has been successfully applied to the predictions of a number of health behaviours (for a review see Boer and Seydel, 1996). Rippetoe and Rogers (1987) examined the effect of information on the components of PMT and found a positive effect on women's intention to practice breast self-examination. More recently, Van der velde and Van der pligt (1991) found a strong predictive relationship between the components of the model and both behavioural intentions and behaviour in relation to sexual behaviour in people with multiple sexual partners in the context of HIV.

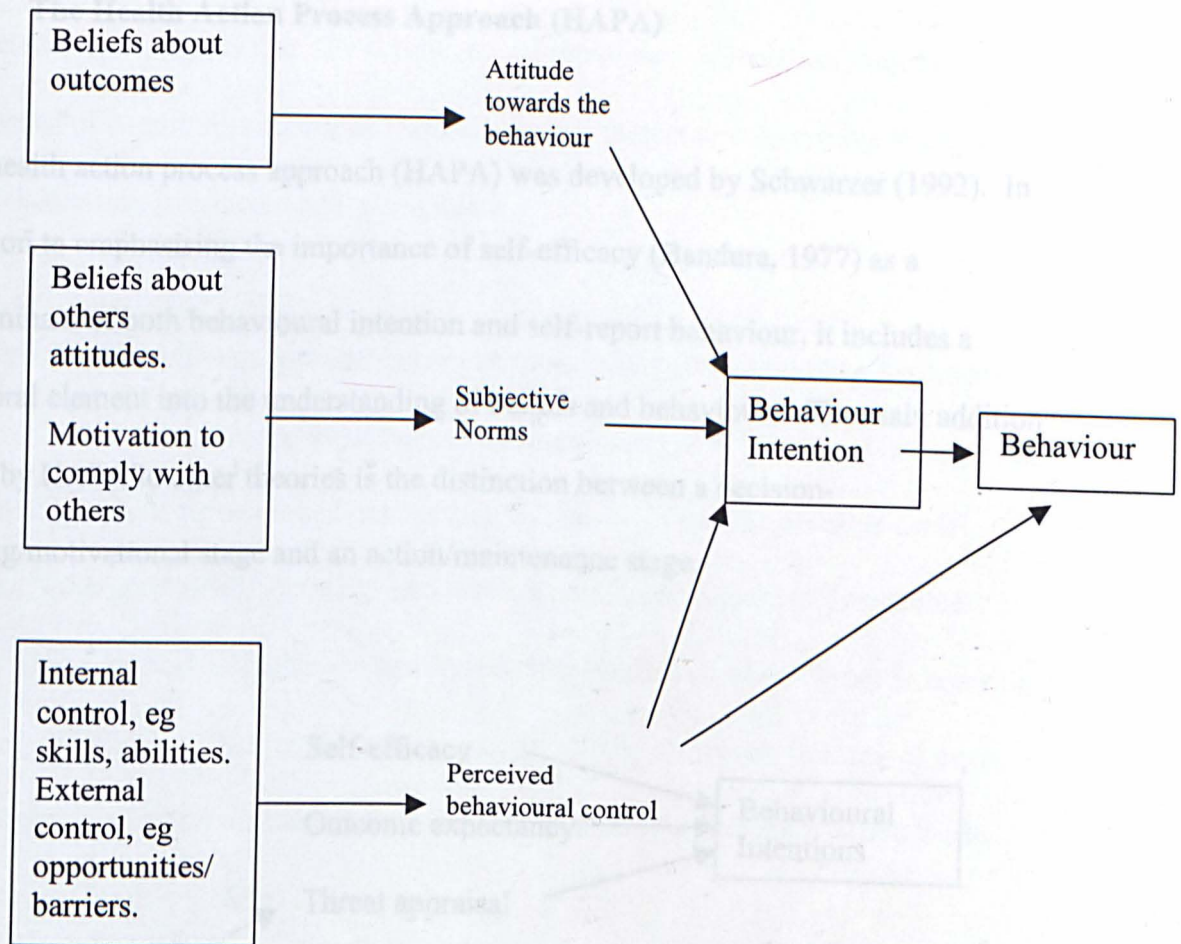
### 2.1.5 Theory of Planned Behaviour (TPB)

The theory of planned behaviour (TPB) grew out of the earlier theory of reasoned action (TRA) and outlines how the influences upon an individual determine that individual's decision to follow a particular behaviour and has been applied to understanding a variety of behaviours (Ajzen, 1988, 1991).

The TPB emphasises behavioural intention as the outcome of a combination of several beliefs. The theory proposes that intentions should be conceptualised as "plans of action in pursuit of behavioural goals" (Ajzen and Madden, 1986) and are a result of the beliefs summarised in Figure 2.3 overleaf.

So according to TPB, individuals are likely to follow a particular health action if they believe that the behaviour will lead to outcomes that they value, if they think the people whose views they value think they should, and they think they have the necessary resources.





**Figure 2.3 . Basics of the Theory of Planned Behaviour.**

The theory of planned behaviour has been widely tested and successfully applied to a variety of behaviours. For example, Brubaker and Wickersham (1990) showed that intention to perform testicular self-examination was positively related to the three components of the model and Schifter and Ajzen (1985) showed that weight loss in a weight loss program was predicted by the components of the model. Thus the theory incorporates important cognitive variables that appear to determine health behaviours. The role of social pressure from others is also incorporated into the model.



### 2.1.6 The Health Action Process Approach (HAPA)

The health action process approach (HAPA) was developed by Schwarzer (1992). In addition to emphasising the importance of self-efficacy (Bandura, 1977) as a determinant of both behavioural intention and self-report behaviour, it includes a temporal element into the understanding of beliefs and behaviours. The main addition made by HAPA to other theories is the distinction between a decision-making/motivational stage and an action/maintenance stage.

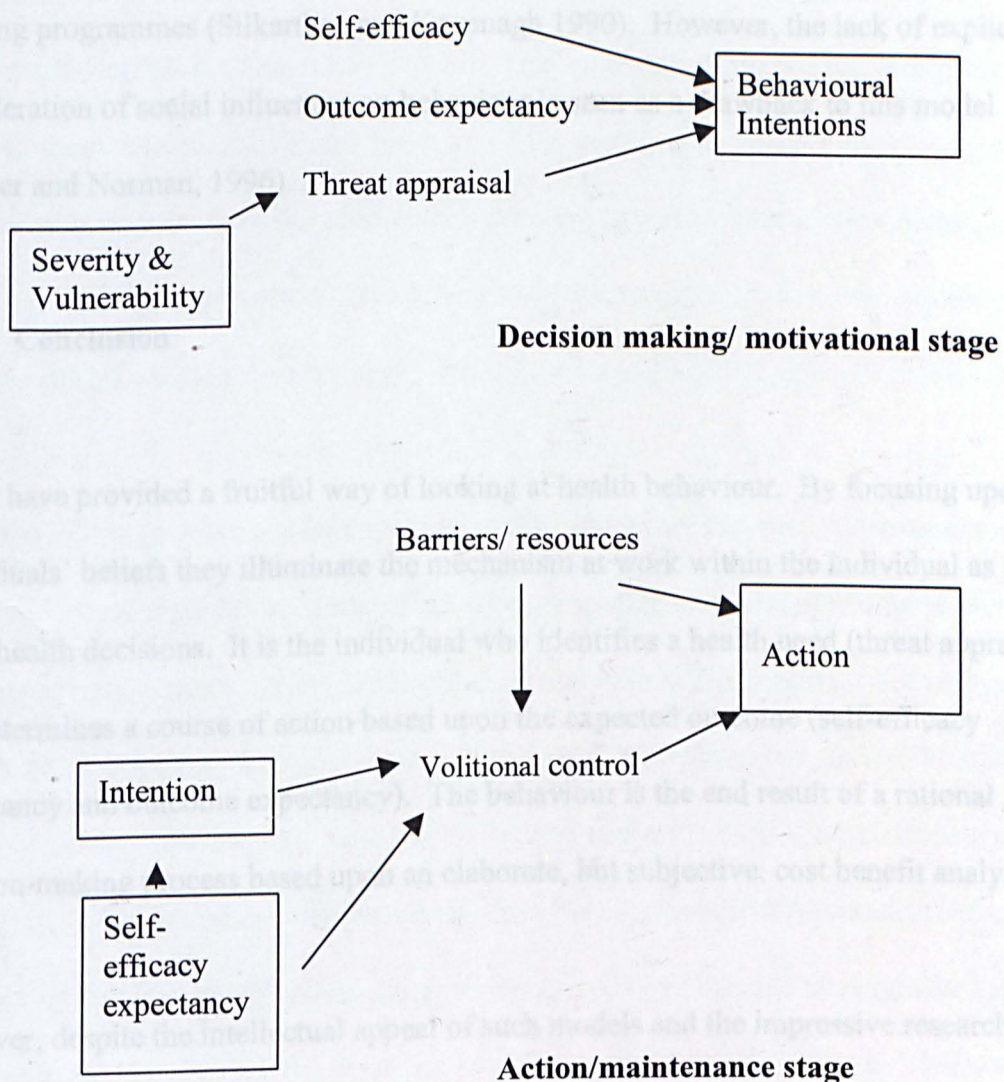


Figure 2.4 Basics of Health Action Process Approach.



According to the HAPA the motivational stage is made up of threat appraisal and expectancy components that affect behavioural intentions. The action stage is composed of cognitive, situational and behavioural factors that determine the extent to which behaviour is initiated and maintained.

The health action process approach has been successful in demonstrating the importance of self-efficacy and outcome expectancies on intentions and behaviour. For example, Seydel et al (1990) reported that outcome expectancies as well as perceived self-efficacy were good predictors of intention to engage in behaviours to detect breast cancer and perceived self-efficacy was found to be predictive of outcomes in controlled drinking programmes (Silkathan and Kavanagh 1990). However, the lack of explicit consideration of social influences on behaviour is seen as a drawback to this model (Conner and Norman, 1996).

### **2.1.7 Conclusion**

SCMs have provided a fruitful way of looking at health behaviour. By focusing upon individuals' beliefs they illuminate the mechanism at work within the individual as they make health decisions. It is the individual who identifies a health need (threat appraisal) and determines a course of action based upon the expected outcome (self-efficacy expectancy and outcome expectancy). The behaviour is the end result of a rational decision-making process based upon an elaborate, but subjective, cost benefit analysis.

However, despite the intellectual appeal of such models and the impressive research base, Sutton (1998) argues that they are not very successful at predicting behavioural intention or more importantly behaviour itself. He suggested that studies using these



models predict only 18-38 per cent of the variance in behaviour. One explanation for this may be that although they are called 'socio-cognitive' models they place by far the greatest emphasis upon the cognitive at the expense of what may be very real social and environmental factors. They are, therefore, limited when it comes to explaining social class variables which have been demonstrated to be important determinants of health behaviour.

According to Connor and Norman (1996) the justification for this is two-fold. *"First, these determinants are assumed to be the important causes of behaviour which mediate the effects of many other determinants (e.g., social class). Second, these social cognitive factors are assumed to be more open to change than other factors"*.

Together, these justifications imply that effective interventions to reduce attrition should be based upon manipulating these variables. This view can be seen as emerging from the clinical tradition where the individual's thinking and behaviour is seen as the most effective focus for intervention. However, this is the very assumption being questioned by high rates of attrition from therapy.

Although SCMs gives us a clear exposition of the inner mechanisms of decision-making they tend to downplay the very real effect of the social and environmental as barriers to certain courses of action. Apart from telling us that beliefs are important because they mediate other effects such as social class, they tell us little about the mechanisms that operate in society that impinge upon the individual and influence their decisions and behaviour. When it comes to attending psychotherapy, where the expectation is for repeated appointments and prolonged treatment, with appointments having to be kept on time usually at times to suit the therapist, then the other factors may prove to have more direct significant effect on behaviour than social cognition.



## 2.2 Social Network Models

### 2.2.1 Introduction

The study of individual's health care decision-making or service utilisation has long been of interest to medical sociology and anthropology. Education, social class, and rural versus urban location, for example, were seen as reflecting the strength of traditional, non-scientific belief systems that discouraged the use of modern medicine (e.g., Koos 1954; Saunders 1954).

However, these early studies that conceptualised utilisation as simply the decision to use a modern medical service or not have given way to a broader view of health care options and the study of the dynamics of health decision-making.

This branch of research has yielded models that illustrate the complex nature of health decisions and the social mechanisms that impinge upon the individual. Health decisions are not seen as 'one off' but rather as an 'illness career' or 'healthcare pathway'.

Decisions are not simply decisions to use or not use a particular health facility but strategies that may involve concurrent or simultaneous use of many different people.

Finally, individuals are embedded in social networks where network interactions are seen to shape decision. Social networks do not just influence decisions, but are the mechanisms by which power is distributed. It is the individual's exposure to power or the lack of it in the form of assets and liabilities that determine the limits of what is possible.



### 2.2.2 Health Care Pathways

In the large and ever increasing body of research seeking to explain why some people but not others make successful use of formal health care services, the concept of health-care pathways occasionally appears. The perception of help-seeking as a pathway has a long history in medical sociology and anthropology. Terms such as “illness career”, “pathways to care” and ‘help-seeking pathways’ are used to express the same basic concept but different research lays emphasis on different aspects. Early work such as that of Parsons (1951) emphasised how illness can be influenced by social relationships and how sickness constitutes a social role. However, since this early work there has been a vast body of research that shows that the subject is much more diverse and complicated than originally recognised.

For example, research uncovered a lack of uniformity across different cultural groups (Suchman, 1965, 1972). The main problem addressed by Suchman was the lack of agreement in expectations and orientations between medical practitioners and patients. He showed that patients with orientations that contradicted medicine were less likely to seek medical care and when they did they were less likely to co-operate in treatment. He explained these variations in people’s orientations to medicine by relating them to social group structures (ethnicity). Thus he demonstrated that illness could take different pathways depending upon the effects of social structure.

Another approach to health-care pathways has been to focus upon the role of decision points. In this approach pathways can be seen as a related series of stages of activity aimed at a more or less defined end point. Pescosolido (1991) presents an elegant version based on the earlier work of Suchman (1972) and Twaddle and Hessler (1982).



Here, the career or pathway is conceptualised in terms of critical decision points. It is not seen as a purely linear path but rather alternative decisions can lead to further decisions or to a reconsideration of earlier ones.

Pescosolido's (1991) conceptualisation targets five decisions that represent critical stages in the process of coping with illness:

*Recognition:* represents the decision that something is wrong. Labelling the individual as 'sick' starts in the community and is made by the individual or by powerful others.

*Utilisation:* refers to the decision to enter the patient role and has traditionally referred to contact with formal medical services. However, for Pescosolido utilisation should refer to all those contacts, whether orthodox practitioners or not, whether professional or folk, who are contacted in their role as formal experts.

*Initial Compliance:* involves the willingness to accept the authority and control of the practitioner. A variety of types of compliance might include taking medication, keeping appointments or changing lifestyles.

*Outcome:* represents the point where there is a definable outcome. For some this may mean recovery while for others it might mean death. Many others may enter a career of permanent disability or chronicity.



*Secondary Compliance*: is the choice open to this latter group of patients. It is the decision whether or not to follow long-term treatment regimes and, if they do so, to what degree and for how long.

### 2.2.3 Social Networks

The conceptualisation of the illness career presented here forces us to take a dynamic view of the health-care pathway that sees decision points as key role entrances and exits in the social process of illness.

However, there is a danger that we see the choice as being either using or not using a particular health care facility only. A parallel branch of research shows us that this is far from the case and that people engage in complex coping strategies. Sociological research has shown that clergymen, police and lawyers, as well as friends and relatives, are critical in the social process of seeking care (Friedson, 1970). Simultaneously medical anthropologists documented the use of alternative healers such as shamans, chiropractors, curanderos, homeopaths, family and others (Press, 1969; Romanucci-Ross, 1977; Unschuld, (1976). In addition, self-care, non-prescription, and home remedies have been incorporated as important options by researchers (Ailinger, 1977; Levin et al, 1976).

Family, friends and others are not just supporters; they are active in giving advice and supplying care and as Litwak (1968, 1969) pointed out not all social structures are capable of rendering appropriate help. Kinship structures that are more or less permanent can deal with long-term support commitment. Friendships, resting on free choice and affectivity, can cope with the provision of new information. Neighbours, because they are close by, can help in emergencies. Bureaucracies, based on trained



expertise and concentrated resources, can provide specialised services. From these types of observations the network model of utilisation developed that recognised that people engage in complex coping strategies involving a range of people and agencies.

### 2.2.3 Social Networks

Friedson (1970) presented the first framework for understanding the effects of network structure and content on the types of healer likely to be sought. He held that “the whole process of seeking help involves a network of potential consultants, from the intimate and informal confines of the nuclear family through successively more select, distant, and authoritative laymen, until the professional is reached”.

Research in this area has relied heavily upon Bott’s (1957) concept of close-knit and open-knit networks. Close-knit networks signify strong interconnectedness among individuals; open-knit networks signify weak interconnectedness. Thus, to explain contacts with various service providers, researchers have assessed the degree of interconnectedness among kin and in friendship groups. However, the effect of having strong or weak connections is not straightforward but depends upon the beliefs held in the network.

For example, if individuals have a lot of people around them who harbour suspicions about mental health care treatment, then they are likely to receive support from the lay community, delay the use of formal care, or stay out of the formal system altogether. This is what Pescosolido et al (1995) found in their study of low income Puerto Ricans. This contrasts with Kadushin’s (1966) study in which he documents that greater consultation with social network ties results in greater resort to mental health providers.



This opposite effect results from the positive beliefs in the efficacy and utility of psychiatrists and psychologists held by middle-class, urban dwelling individuals who made up the networks. Where networks are open and weak, the individuals are less supported within the community, but open to seeking professional help irrespective of the network values.

#### **2.2.4 Formal Decision Making Models**

In more recent years medical sociologists and anthropologists have increasingly been concerned with the development of formal models of decision-making in the study of health care choice in social networks.

One such example is that of anthropologist Young (1981) who developed a formal decision-making model when exploring the health care decisions of residents in a rural village in Mexico. His model presupposes that a common culture provides members of the community with shared standards or rules for solving problems and selecting particular courses of action. Health care decisions are thus patterned and predictable, following a culturally prescribed set of values and ideas concerning the 'best' or most appropriate choice of therapy in a given case of illness.

Community members were questioned regarding hypothetical instances of illness and the decisions they would make given a wide variety of circumstances. Four key factors were ultimately determined to influence the choice of health care: gravity of illness; knowledge of home remedies for illness; faith in effectiveness of home vs. medical treatment; and accessibility of health services.



In order to test the model Young collected data on actual health care decision-making for 323 illness episodes. According to responses, the decision-making model correctly accounted for 82% of all treatment choices.

For example, a person with an illness that is considered 'moderately serious' for which a home remedy is not known and who has greater faith in western medicine will, according to the model, seek treatment from a local unlicensed medical practitioner rather than from a qualified physician. Similarly, a grave illness suffered by a person with more faith in western than folk treatment, and who has sufficient money and transport, will be taken to a qualified physician.

#### **2.2.5 Social Organisation Strategy (SOS) Framework**

The network approach has probably reached its zenith in the work of Bernice Pescosolido (1992) who formulated the 'Social Organisation Strategy' (SOS) framework.

In this approach a particular action, choice, or decision is embedded in a social process where the network interactions of individuals not only influence preference formation and define the situation, but also drive the process of deciding whether something is wrong, whether anything can be done about it, what should be done, and how to evaluate the results. Thus social networks provide the mechanisms (interactions) through which individuals learn about, come to understand and attempt to handle difficulties.



The model begins with the sociological premise as to the primacy of social interaction in forming the very essence of social life and on social structures as defining the bounds of the possible. However, it overlays this with notions of utility maximisation, purposive actions, and bounded rationality derived from psychological and economic theory.

Decisions in the social world are seen as purposive and seen as being made by individuals mulling over the costs and benefits of a particular action in situations with variable characteristics and under a social structure that offers constraints and opportunities. Individuals' health choices are seen as constantly emerging pathways within the person's social life conditioned by social network interactions.

The SOS approach frames the process of decision making in terms of the episode rather than the choice. It is more of an emergent process like a pathway being laid in front of a person. Laying this pathway is a dynamic interactive process involving network interactions. How a person acts is shaped by the beliefs, values and priorities of the people whom they have contact with

In the SCMs model, social network variables are seen as influencing the individual in his or her decisions and actions. However, as Pescosolido (1992) points out "*There is a difference between seeing social norms and social networks as influences on decisions or individuals, as rational choice theory suggests, and seeing social interactions in bounded networks as the mechanism that underlies action*". Thus "*a particular action, choice or decision is embedded in a social process where the network interactions of individuals not only influence preference formation and define the situation but also*



*drive the process of deciding whether something is wrong, whether anything can be done without it, what should be done and how to evaluate the results”.*

Adopting this approach allows for the conceptualisation of both a static hypothesis to examine the effects of network variables on the choice of health-care pathways and also a dynamic hypothesis that allows examination of how change affects the course of decision-making. In illness, for example, having access to a dense network with beliefs sceptical of the efficacy of modern medicine increases both the resort to alternative healers and the delay in seeking out a physician (Friedson, 1970). If the illness damages network ties over time, perhaps through stigma or burden of care, any continued compliance with the treatment regime is affected by the new mix of network density and ideology (Pescosolido, 1992).

Pescosolido (1992) tested one aspect of her model, which was that patterns of health network utilisation should not be reduced to simply use, or non-use of medical practitioners and found unique clusters of response representing alternative help-seeking pathways. Her results suggested different ‘cascades’ of network interactions in illness episodes that were socially organised. When relating these help-seeking clusters to social variables she found that social variables play a significant role in determining which strategy people were likely to employ. For example, black people reported using the physician-only strategy more than white people or strategies employing the physician and friends. Older people are more likely to use strategies that include non-prescription drugs or rely on family alone.



### 2.2.6 Conclusion

#### 2.3.1 Introduction

The investigation into how social relationships affect utilisation of health care services is extensive and varied. However, at their core a few key concepts emerge.

Pathways to care are seen as related to patterns of health care decisions and behaviours, which are constantly emerging under the influence of social networks. It is the individual who makes decisions after mulling over the costs and benefits of certain actions. However, it is network interactions by which social beliefs and norms come to shape a person's perception of the situation and drive the process of responding. Thus social interactions are the mechanism by which constraints and opportunities offered by the social structure impinge and affect the individual's decision-making process.

Whilst these approaches have been very important in demonstrating the role of network interactions in influencing people's health-care choices and behaviours the research has largely emphasised the role of information or beliefs. Other aspects of relationships such as intimacy and financial or instrumental support have been largely overlooked. Furthermore, the research has focussed upon proximal relationships such as family or close friendship ties and seems to have neglected the possible impact of the wider socio-cultural context and more distal relationships that may provide limits on social networks.

#### 2.3.2 Deprivation and psychological distress

Remittances as to the understanding of why certain groups are more likely to need psychological help than others are offered by a number of writers. In pointing to the



## 2.3 Social Causation Models

### 2.3.1 Introduction

The social causation view of mental illness is reflected in medical sociology, community psychology and social psychiatry perspectives. These perspectives seek to explain the SES gradient in mental illness in terms of the very different life experiences of people in the different strata of society. These approaches regard the inequitable distribution of economic and social resource in society as central to the understanding of why certain groups are more likely to need psychological help and support (Holland, 1990; Bostock, 1991, Williams, 1996). Social status as defined by class, gender, race, money, employment, physical ability and age, and a person's position in relation to hierarchical social structures influence their access to power and control (Bostock, 1998). Exposure to the oppressive forces associated with low social status with its lack of power and control can have profound psychological consequences (Kolstad, 1987).

Although this literature contains no well worked out models of service utilisation it does provide a different viewpoint on attrition from psychotherapy. Essentially it argues that the same factors that lead deprivation to impact upon health also impact upon the individual's ability to deal with the resulting ill health including their ability to utilise psychotherapy services.

### 2.3.2 Deprivation and psychological distress

Formulations as to the understanding of why certain groups are more likely to need psychological help than others are offered by a number of writers. In pointing to the



overwhelming evidence for social factors in the causation of mental illness, Pilgrim (1997) summarises the community psychology position as follows:

*"If all the literature is put together.... a pattern is present of a class gradient in relation to mental health. The most obvious reason for this is in relation to direct social stress and the absence of buffering positive experiences.*

*To live in poverty means losing control over one's life in a number of ways which are linked to inner vulnerability and other stress. These include the increased probability of; struggling to provide basic necessities of food and shelter; having a poor diet; resorting to comforts, such as drugs and alcohol which impact negatively on health and well-being; aimlessness and powerlessness; cumulative debt; living in an environment which is dirty, traffic congested and has a high crime rate; and being homeless or living in a cramped, poorly furnished home. All of these lead to a lower sense of self-worth and constricted agency of people living in poor communities"*

An example of the devastating effect of economic deprivation on the psychological affect of individuals is described in Kolstad's (1987) analysis of a small deprived community in America.

In commenting upon the Stirling County Study (Leighton 1987) he noted the following:

*"In the Stirling County example we can talk about cause at three different levels. The history of the Stirling County suggested that the onset of economic deprivation some fifty years earlier had preceded the appearance of the isolation, unemployment and so on – the economic deprivation of the area was a sort of cause of the whole failure.*



*On another level of explanation... the people... typically suffered from underemployment, unemployment, lack of capital and credit, illiteracy, few skills of any kind, hostile interpersonal relations, broken homes, weak social organisations, low opinions of themselves, social isolation ... a reputation in other settlements for being odd and undependable.*

*And on a third level we were told that what was running through all the subsets of patterns (the feeling of hopelessness and helplessness and so on) was the feeling of the world as unpredictable and dangerous, and that "Hazards" approaching in this form appear to be particularly liable to induce anxiety and depression"*

### **2.3.3 The internalisation of deprivation**

The interrelationships between different environments and children's development provides the framework for Bronfenbrenner's (1979) analysis. He illustrates the interplay of these systems:

*"Parents' evaluations of their own capacity to function, as well as the view of the child, are related to such external factors as flexibility of job schedules, adequacy of child-care arrangements, the presence of friends and neighbours who can help out in large and small emergencies, the quality of health and social services, and neighbourhood safety".*

Thus people grow psychologically as well as physically in a world that is structured beyond the immediate nuclear family. However, as Hagan and Smail (1997) point out, *"Few writers in psychology have anything to say about the experience of being born*



*into poverty and finding oneself in a world in which all forms of power enabling the development of a sense of dignity are strictly limited or denied”.*

One writer who has attempted to do this is Trevithick (1988), who describes the relationship between the childhood experience of being raised in relative poverty and later mental health status. She sees oppression in childhood as the foundation on to which all other forms of oppression including class are overlaid. It is the ‘internalising’ of oppression that leads people to be convinced that some people are less valuable and deserve less.

According to this view, it is this ‘internalising’ of deprivation that is so damaging psychologically. Sennett and Cobb (1993) show how *“people are encouraged to feel a sense of personal responsibility for their social position. Many people are therefore forced to live with a sense of shame for their relative failure. The facts of existence for many are constantly overlooked. Man’s power to stay at work, for example, is as much out of their hands as ever, but they are still likely to blame themselves for perceived failure”.*

#### **2.3.4 Humiliation and entrapment**

One of the most empirically developed models within the social causation framework is that proposed by Brown and his colleagues (Brown & Harris 1978) who studied depressed women in Camberwell. They observed that working class mothers were much more likely to be depressed than other women.

To explain these findings they developed a multi-factorial model involving adverse events and vulnerability factors. They found, for example, that working class mothers



were much more likely to have lost their own mother before age 11 and were more likely to have either an absent or hostile partner.

So although child rearing is stressful for all parents, its role is put into social context by Brown & Harris.

*“Since working class women with children also have a higher rate of severe events and major difficulties, they have a greater chance of experiencing both a provoking agent and a vulnerability factor, and this is enough to explain the entire class difference in risk of depression among women with children....”*

However, Brown, Harris and Hepworth (1995) have since modified this model to include the concept of ‘entrapment’. Drawing on the work of Unger (1984) and Gilbert (1992) they deduce that the probability of depression increases not necessarily with the loss or threatened loss of relationships, per se, but with the co-existence of humiliation or entrapment. Thus depression is commonly associated with feeling trapped and humiliated such that there is an assault on the person’s self-esteem or an indirect undermining of their sense of self-worth and the person has a ‘blocked escape’.

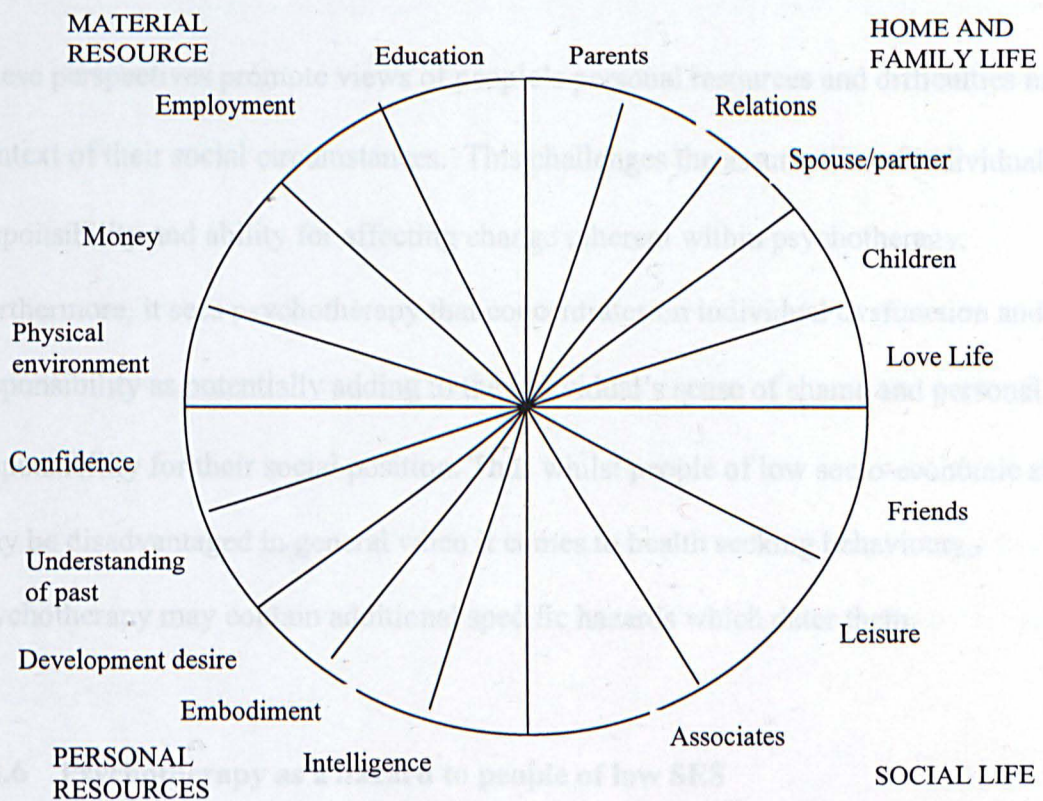
### **2.3.5 Deprivation and social power**

Smail (1993) explicitly links the experience of personal distress with the operations of oppressive social power. His analysis argues that people develop and live in a world that is structured by power. He sees the potential for individuals to effect change in their situations as dependent upon the actual scope for control that has been available to them as children and the actual scope for control they have as adults. As adults their



scope for control depends upon their proximal field of power (family, friends etc) and the more distant field of power of the social world. People and their environments affect each other but the power that people have may vary enormously when it comes to dealing with stressful life events.

One of the most elaborated descriptions of the domain through which power affects the individual is to be found in Hagan and Smail (1997). Four areas of a person's life are described that may be sources of 'assets' of which the individual can make use and 'liabilities' that impair the individual's functioning. In this approach physical, financial, emotional and symbolic domains are all combined within the field of power in which the individual must operate.



**Figure 2.5 Terrain of proximal powers and resources. (Figure 2 from Hagan and Smail, 1997)**



These themes are developed by other writers. The influence of valued roles and control or agency as psychological factors in linking health status and socio-economic deprivation is described by Orford (1992, 1998). The opportunities for developing personal resources within families, local and wider communities provide a buffer against stressful life events. Similarly, Allen and Britt (1983) develop the idea that social position enables or disables people psychologically because of their access to economic, social and personal resources.

Individual resources may include articulacy, literacy and self-confidence and interact with social and material factors such as education, social support and housing conditions to influence the experiences of well-being and distress for individuals and communities (Bostock, 1998).

These perspectives promote views of people's personal resources and difficulties in the context of their social circumstances. This challenges the assumption of individual responsibility and ability for affecting change inherent within psychotherapy.

Furthermore, it sees psychotherapy that concentrates on individual dysfunction and responsibility as potentially adding to the individual's sense of shame and personal responsibility for their social position. Thus whilst people of low socio-economic status may be disadvantaged in general when it comes to health seeking behaviours, psychotherapy may contain additional specific hazards which deter them.

### **2.3.6 Psychotherapy as a hazard to people of low SES**

A damning indictment from this position comes from Fryer (1998) when commenting upon the practice of Clinical Psychologists.



*“Viewed from the perspective of community psychology, much institutional psychology is: politically myopic; ideologically compromised; built on a suspect foundation of naïve reductionist biological determinism and crude positivism; oblivious to both the transactional nature of subjectivity and the compelling force of social structure; preoccupied with simple cause-effect relations between individual level variables. Institutional psychology is seen by many from the “real” world, as constructing its scientific stories by processing disempowered “subjects” who have been removed from their usual social contexts, commitments and responsibilities and confronted with relatively brief, often bizarre, tasks in isolation or in arbitrary convened small groups in artificial compliance-inducing settings. Some regard institutional psychology as hypocritical, rejecting power as a legitimate focus of psychological attention because of its “ideological” nature, whilst covertly allying itself with the status quo; emphasizing individual dysfunction rather than pathogenic social arrangements in return for the status, privilege and power of the professional expert”.*

Fryer leaves little left to be said about the relevance of standard psychotherapy practice to the very many people whose lives are blighted by the very real effects of poverty and social marginalisation in all its forms. One can only but wonder what such a person thinks and feels when confronted with such a situation. Perhaps the question should not be why do so many people turn their backs on therapy but why do many stay for any period at all?

*“Thus this community psychology perspective is useful in illustrating why therapy is of more use to some people than others, not because of differences in motivation but because of the balance of personal and social resources and pressures.”*



### 2.3.7 The irrelevance of psychotherapy to people of low SES

The pathways whereby inequalities impact on health are many and complex. Apart from the direct effects of socio-economic deprivation on health, members of marginalized groups often lack the material and/or symbolic resources to deal with health damaging stress (Campbell and Jovchelovitch, 2000). People who lack the power to shape their life course in significant ways are less likely to believe that they can take control of their health, and thus less likely to engage in health-promoting behaviours (Bandura, 1996).

Schofield (1964) long ago pointed to the attraction to and for psychotherapists of 'Yarvis' (young, attractive, verbal, intelligent and successful clients). However, Hagan and Smail (1997) argue that the real significance of this has been neither fully assimilated nor elaborated. *"It is not just that well-resourced, more educated and middle class clients are likely to be able better to 'make use' of therapy than those less privileged, but that they have available to them powers and resources which make it possible for them to operate on their proximal environment"*.

In making this argument Hagan and Smail (1997) are claiming that people's use of psychotherapy services is affected by the very same variable that they and others argue gives rise to psychological distress in the first place. A similar view is argued by Bostock (1998):

*"Thus this community psychology perspective is useful in illustrating why therapy is of more use to some people than others, not because of differences in motivation but because of the balance of personal and social resources and pressures."*



### 2.3.8 Conclusion

Social causation models point to access to social power or resources as an important determinant of health behaviour, including undertaking psychotherapy. It is power and resources that impact on the individual's decision-making process via network interactions. Real physical limits imposed by, for example, the inability to take time off work, to make child-care arrangements or have access to suitable transport may all reflect a lack of power to act on the proximal environment so essential to therapy. Everyday they are subjected to the internalisation of deprivation in the form of lowered sense of self-worth and beliefs in a lack of control over events. This lack of control experienced in everyday life by such people points to the irrelevance of psychotherapy for them. But worse than this, psychotherapy's emphasis upon individual dysfunction and responsibilities may increase people's sense of shame at their position.

Thus the social causation perspective differs from the network models discussed earlier in that it emphasises the role of power in determining an individual's behaviour. Other people are not just sources of information and influence; they are agents of power who may enable or disable a person's efforts emotionally, financially, or physically. Furthermore, less personal network structures such as the workplace or sitting of, or access to, health-care facilities will similarly affect the individual through the formal structures of social power.



## CHAPTER 3 - CONSTRUCTING A THEORY OF ATTRITION

### 3.1 Decision Action Pathway Interactive Network (DAPIN) Model.

#### 3.1.1 Introduction

DAPIN emerged in the course of this research out of the three broad literatures reviewed in the previous chapter. It seeks to explain health-care decisions within a model of reciprocal influence reminiscent of Bandura's (1986) Social Cognitive Theory. People are neither seen as totally controlling their lives nor being totally controlled by external forces. Internal and external factors all operate interactively as determinants of each other in complex relationships over time.

At the centre of the DAPIN model is the individual who makes decisions and acts, as exemplified by the Social Cognitive Models (SCMs). Having established a health need, the individual's beliefs about the likely outcome of a particular course of action determine the strength of their motivation while social barriers and resources influence the course of behaviour. However, under the influence of the social network model, the decision is extended and conceptualised as an emergent pathway under the influence of social network interactions. Social network interactions are not seen just as influences, but as mechanisms that underlie actions driving the process of deciding whether something is wrong and what should be done about it. Finally, social causation models of mental illness contribute the concept of power to the network. It is through network interactions that people have access to assets or are subject to liabilities. Activities in one part of the network reverberate around the network affecting the balance of assets and liabilities elsewhere. Every stage of decision making and behaviour along a



hypothetical help-seeking pathway from initial identification of a problem to specialist treatment will both be affected by the interactive network and also affect other domains of the interactive network.

Attrition when seen from a broader perspective is viewed as only a small part of a much larger phenomenon. People make health-care decisions and choices every day whether it is deciding that something is wrong, deciding what is wrong, or what to do about it. Decisions that people make may lead them along a pathway to contact psychotherapy services. However, on the way there are many points at which the person might choose to take an alternative option. The choices are socially bound and knowledge of the relevant factors in a person's life should enable us to predict the choices they are likely to make.

### **3.1.2 The individual as Decision Maker**

A simplified version of the Health Action Process Approach (HAPA) illustrates the role of the individual who makes decisions and acts as exemplified by the SCMs. In the face of a threat (health need) a person has to form a behavioural intention (decide) to act in a particular way. Deciding on a particular action will be influenced both by their outcome expectancy (that the action will lead to a desired outcome) and their self-efficacy expectancy (that they are capable of doing what is necessary to carry through that action). Once intention moves to behaviour this is influenced by social barriers and resources in addition to self-efficacy expectations.



Thus the model emphasises the internal cognitive structures of the individual at the intention stage, but at the action stage external barriers and resources are seen as important in addition to self-efficacy beliefs.

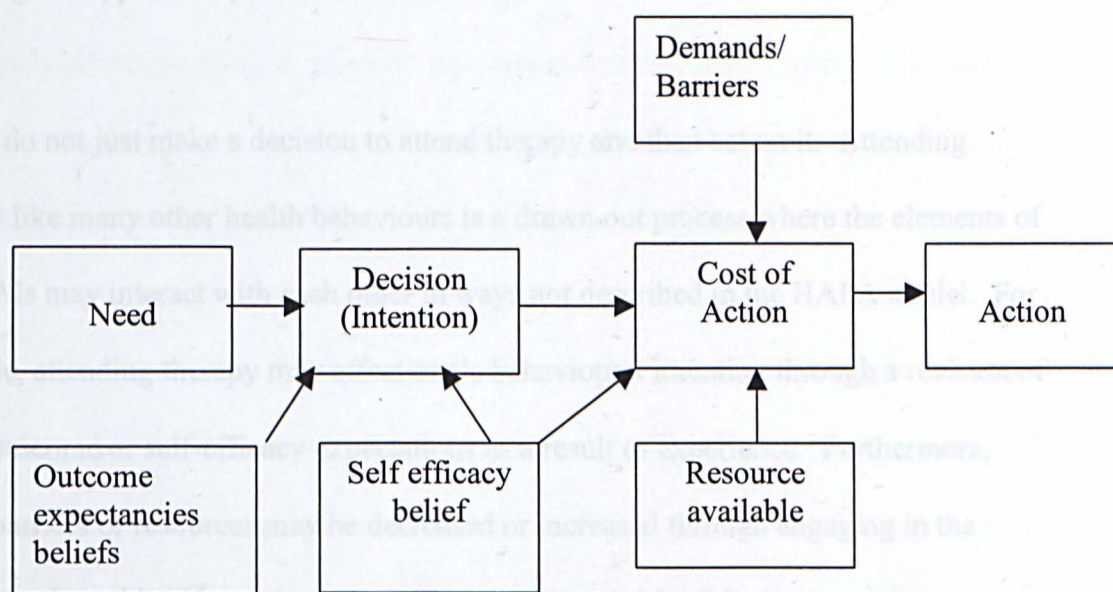
However, as it stands, this view of decision-making as taken for granted in all the SCM literature is over-simplistic. What is presented is an isolated decision maker who, given the correct information (and the right beliefs) would take the one rational decision and act accordingly if it were not for certain barriers (with all the negative connotations this term implies) that stand in their way. By limiting the field of view in this way we are left with the impression that there is always just one rational decision and course of action to be taken and that the outcome of this can be easily described and agreed upon.

People live complex lives and they are faced everyday with a range of competing demands on their personal resources. These will range from personal demands (e.g.: to enjoy oneself), through the demands of family (to provide love and emotional support) to the demands of society (e.g. to be employed). Thus demands arising in one areas of life may become a barrier to a course of action in another. People weigh competing demands against their available resources and presumably try to maximise utility. Even in the relatively simple case of quitting smoking who could say for sure, without knowing the whole picture, that utility will be maximised by giving up smoking on this particular day? Thus individual decisions make sense only within a field of decisions and competing demands.

Going beyond this, even if we accept that a person has a health need and this is sufficiently severe to make them prioritise it by seeking help, the simple positive outcome envisaged by the health professional may be anything but simple. To a person



who is depressed, the prospect of being 'un-depressed' may mean having to return to a soul-destroying job or losing benefits that provide them with a better standard of living than they could achieve through low paid work. Thus given the range of options available, being 'depressed' may be the least worst and thus utility may be maximised by choosing not to attend therapy.



**Figure 3.1 Revised conceptualisation of HAPA.**

The model presented here and illustrated in figure 3.1 thus retains the individual as a rational calculator with outcome expectancies and self-efficacy beliefs as being important in determining behaviour. However, it sees the individual as embedded in a complex world of competing demands and variable resources that extends HAPA by proposing that behavioural intentions will be moderated by the 'cost of action'. The cost of action will be determined by the resultant of the equation including demands from other areas of life and available resources. If competing demands are low and resources high then the cost of action will be lower and intention will translate into action. However, if the reverse is true then the same level of intention is less likely to translate into actions.



### 3.1.2 The Decision/Action Pathway

Although this linear model may have utility in explaining relatively simple health behaviours such as deciding about and going for a screening test, it hardly does justice to the literature reviewed and the complexities involved in sustaining behaviour such as attending therapy over a period of time.

People do not just make a decision to attend therapy and then act on it. Attending therapy like many other health behaviours is a drawn out process where the elements of the SCMs may interact with each other in ways not described in the HAPA model. For example, attending therapy may affect one's behavioural intention through a revision of either outcome or self-efficacy expectations as a result of experience. Furthermore, social barriers or resources may be decreased or increased through engaging in the process and need itself may increase or decrease as a result of decisions or actions.

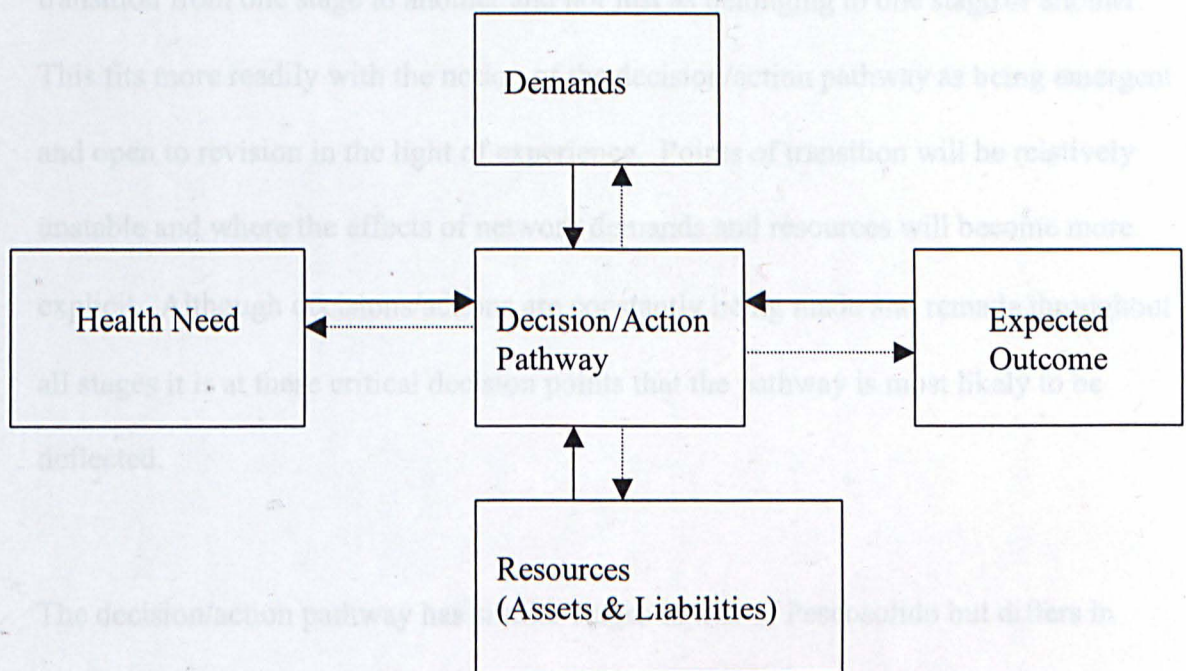


Figure 3.2 An Alternative Conceptualisation of SCMs

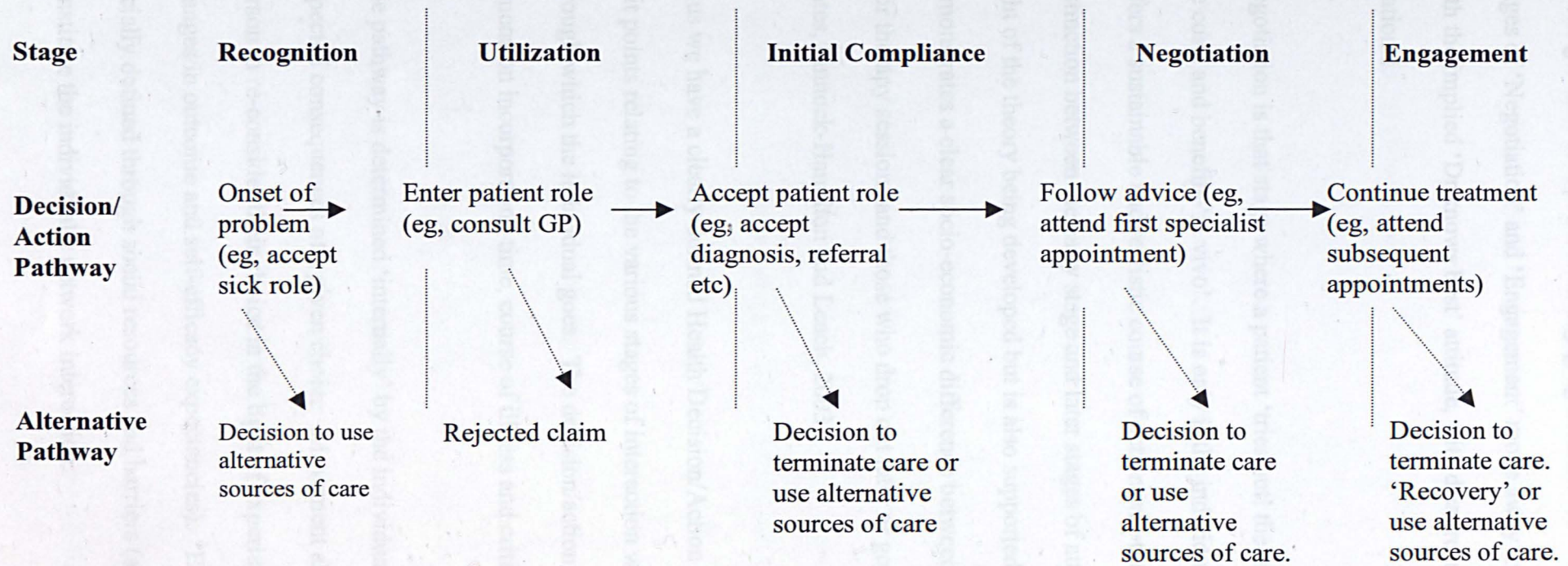


Thus decisions and actions are constantly strengthened and weakened as a result of experience. A person's intention may waver and they may survey alternative possible solutions. Decisions and actions can be seen only as a gestalt-as an ongoing process where each influences the other and are in turn influenced by other factors. Costs and benefits flow back and forth, influencing the likelihood, strength, direction and duration of the pathway concerned. Thus health decision-making is framed within an ongoing episode or emergent decision/action pathway as illustrated in Figure 3.2, rather than as a simple choice to attend or not attend for a particular procedure.

The decision action pathway to therapy will follow certain predictable stages and in this regard is conceptualised in a similar way to Pescosolido's (1991) illness career model. However, it differs in some important respects (see Figure 3.3). First, the stages are to an acute referral pathway with increased stages and exit points as indicated by the attrition literature. Second, decision/action critical points are seen explicitly as part of transition from one stage to another and not just as belonging to one stage or another. This fits more readily with the notion of the decision/action pathway as being emergent and open to revision in the light of experience. Points of transition will be relatively unstable and where the effects of network demands and resources will become more explicit. Although decisions/actions are constantly being made and remade throughout all stages it is at these critical decision points that the pathway is most likely to be deflected.

The decision/action pathway has similar stages to that of Pescosolido but differs in some important respects. The first three stages of recognition, utilisation and initial compliance remain essentially the same, as these have been established by many





**Figure 3.3 Decision/Action Pathway**



researchers (for example, Parsons, 1951, Suchman, 1964, Twaddle and Hessler, 1987.) as being central to a process of engaging medical services. However, the subsequent stages of 'Negotiation' and 'Engagement' move away from the notion of compliance with the implied 'Dr knows best' attitude, with disagreement being seen as deviant and irrational.

Negotiation is that stage where a patient 'tries out' the treatment on offer and weighs up the costs and benefits 'in vivo'. It is only if the individual decides that this pathway offers a sustainable and realistic course of action will they move into engagement. This distinction between the early stage and later stages of attending is a logical step in the light of the theory being developed but is also supported by attrition research which demonstrates a clear socio-economic difference between those who drop out in the first four therapy sessions and those who drop out later or go on to complete therapy (Self, Oates, Pinnock-Hamilton and Leach, 2003).

Thus we have a clearly defined Health Decision/Action Pathway with clear decision and exit points relating to the various stages of interaction with the health service system through which the individual goes. The decision/action pathway is given a temporal dimension incorporating time, course of illness and critical decisions.

The pathway is determined 'internally' by the individual making decisions based on the expected consequences of a given choice. Movement along the pathway may lead the person to re-consider their choice in the light of experience (behavioural intention, changes in outcome and self-efficacy expectancies). 'Externally' the pathway is socially defined through social resources and barriers (assets and liabilities) that constitute the individual's network interaction.



resources) is seen as a source of assets and liabilities. Thus the network is a network of

Within this model different stages along the pathway may be influenced more or less by the different factors said to be in relationship with the pathway.

### 3.1.4 Social Determination

Embedding the individual decision/action pathway within social networks provides us with the mechanisms by which the social influences the individual. It is within social networks where individuals recognise or fail to recognise a problem, find the limits of social resources and find a way to evaluate outcome.

However, the social causation model emphasises the individual's access to power as decisive both in determining the level of stress they experience and also their ability to organise effective response, including attending therapy. Thus the network has to become the mechanism by which power is transported throughout the system.

Hagan and Smail (1997) make it clear that an individual is embedded in a field or power that may be a source of 'assets' that the individual can make use of or 'liabilities' which impair the individuals functioning.

This field is seen as encompassing not just relationships to other people in the form of information exchange. Other people (family and friends) are the source of financial, emotional and instrumental resources and demands, assets and liabilities. More distant relationships are the source of meaning and pleasure or confusion and pain (social life) and social structures such as housing and employment (material resources) directly affect the limits of what is possible. Finally, the individual themselves (personal



resources) is seen as a source of assets and liabilities. Thus the network is a network of power. Network interactions involve the exchange of physical, financial, emotional and symbolic power.

### 3.1.5 Reciprocal Influence

It is important to note that by incorporating Hagan and Smail's power model the network ceases to be simply a social network model where social networks determine a person's behaviour. Rather it takes us back to the model of reciprocal influence (Bandura, 1986) in that it incorporates the individual in reciprocal relation to their social environment

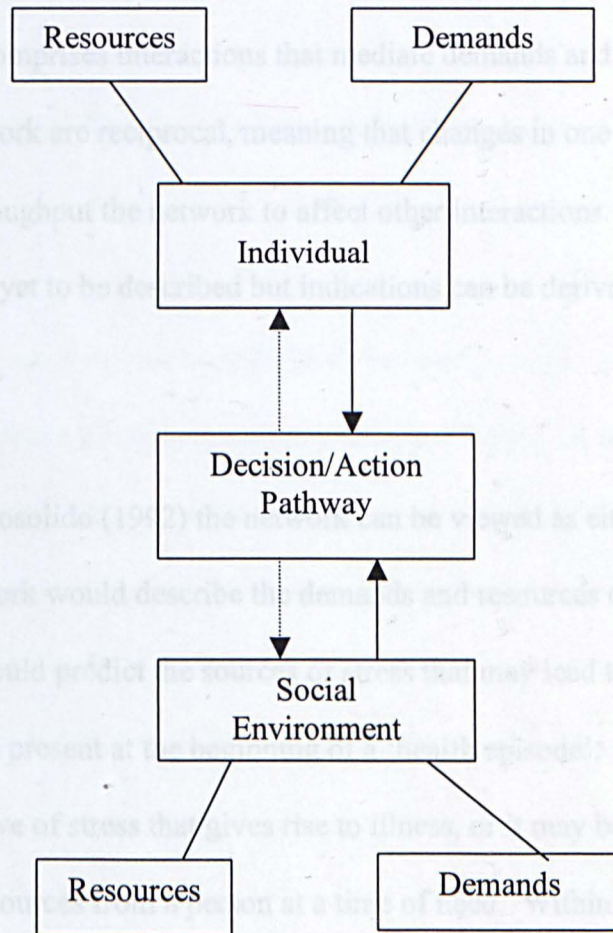
Both the individual and their social environment are sources of demands and resources, assets and liabilities and therefore affect one another. Although the dynamic interactive network model differs from Bandura's SCT in the components said to interact with one another, it does agree upon the general principles of the reciprocal influence.

*"Reciprocity does not mean symmetry in strength of bi-directional influences. Nor is the patterning or strength of mutual influences fixed in reciprocal causation. The relative influences exerted by the three sets of interacting factors will vary for different activities, different individuals, and different circumstances. When environmental conditions exercise powerful constraints on behaviour, they emerge as the overriding determinants...when situational constraints are weak, personal factors surface as the predominant influence in the regulatory system". Bandura (1986).*

Thus the network retains the notion of network interactions as the mechanism by which the emergent decision/action pathway is directed. But now the individual becomes an



active part of the network who can exert influence on both the pathway and on the other components of the social network, and not just the passive recipient of network influences.



**Figure 3.4  
Interactional  
Network**

Retaining the individual as a major part of the model allows for the retention of the major components of SCMs. However, importantly, rather than being decisive, expectancies are now seen as only one source of assets or liabilities with other aspects of the individual and social factors given equal status as network interactions.



### 3.1.6 The Interactive Network

The model thus formulated conceives the individual's health-care decisions as a decisional/action pathway that is constantly emergent and influenced by demands and resources (assets and liabilities) arising throughout the dynamic interactive network.

This network comprises interactions that mediate demands and resources. Interactions within the network are reciprocal, meaning that changes in one part of the network will reverberate throughout the network to affect other interactions. The exact nature of the reciprocity is yet to be described but indications can be derived from the literature reviewed.

Following Pescosolido (1992) the network can be viewed as either static or dynamic.

The static network would describe the demands and resources distributed throughout the network and would predict the sources of stress that may lead to breakdown. The network will be present at the beginning of a 'health episode'. Parts of it may be directly causative of stress that gives rise to illness, or it may be indirectly causative by withholding resources from a person at a time of need. Within the network there is the power to define the nature of the problem, who or what is responsible and what should be done about it, i.e. to determine the decision/action pathway.

From the point of view of health care utilisation and attrition in particular, the dynamic interactive network is of more interest. Engaging in a health-care pathway may have direct or indirect costs and benefits and these will reverberate throughout the network and thus affect the overall patterning of demands and resources on the direction of the decision/action pathway. For example, accepting the diagnosis of depression may get a person necessary access to therapy, but this in turn may cause stress in their relationship



with their partner who is jealous and fearful of this new relationship. Similarly, diagnosis may give a person relief from an oppressive workplace, but an unsympathetic therapy approach may cause a lowering of self-esteem. Thus within the network the system of health delivery itself is seen as integral to the direction of the decision/action pathway.

### **3.1.7 Conclusion – The Decision/Action Pathway Interactive Network (DAPIN)**

#### **Model**

Having started out with what seemed like a relatively simple question as to why people of low SES are more likely to drop out of therapy, the search for a theoretical explanation has led to the construction of a comprehensive model of healthcare utilisation. In some respects this should not be too surprising as attrition can only ever be seen as just one facet of utilisation. The current model would see it as a unilateral decision by an individual to terminate a healthcare pathway embarked upon within a particular health system.

The model answers the three questions posed at the outset to guide the process. The decision/action pathway is the mechanism within the individual that is operated on by SES with the mechanism within the social environment being network interactions. Finally, it is the uneven distribution of power in the form of physical, emotional or symbolic demands and resources in society that is transmitted via network interactions that makes people of low SES more likely to stop attending.



## CHAPTER 4 - DEVELOPMENT AND VALIDATION OF A MEASURE

### OF THE COST OF THERAPY ATTENDANCE (CATA).

Theory is stated in terms of abstract concepts or hypothetical constructs that cannot be directly observed or measured. A construct is “*a hypothetical attribute, process or other regulator in the behaviour of individuals/ groups or other entities*” (John and Benet – Martinez, 2000). In order to be subjected to empirical testing, theoretical constructs must be ‘translated’ from the abstract to the concrete, from concepts to operations that can be observed and replicated (Brewer, 2000). The method to be described here involves the construction of a patient self-report measure (questionnaire/rating scale) to measure the cost attached to therapy attendance for individual patients and to use this to predict subsequent attrition.

The construction of the scale is theoretically driven throughout, using modern methods of construct-orientated scale construction. Questionnaire items are developed from the literature and methods to enhance convergent and discriminant validity are used throughout to ensure the final scale fully reflects the underlying theory. The final form of the questionnaire (CATA 32) is used to test predictions arising from the DAPIN model.

#### 4.1 Theoretical Considerations

##### 4.1.1 Introduction

When developing a rating scale to operationalise the construct under investigation a number of issues are raised that traditionally are discussed under the headings of



reliability and validity. In essence we want to be sure that the measure not only reproduces the same measurements under essentially the same conditions but also that we can trust the measurements to have a particular meaning. It is only if we can trust the measure in these respects that we are able to make inferences about the construct and theory under investigation.

#### 4.1.2 Modern Construct-oriented Scale Construction

Modern methods of questionnaire construction are seen as an integral part of theory building. John and Benet-Martinez (2000) have outlined the process involved.

*"It begins with (a) generating hypothesis; (b) building a model and plausible alternatives; (c) generating items using construct definitions, generalizability facets, and content validation procedures as guides; (d) gathering and analysing data; (e) confirming and disconfirming the initial model; and (f) generating alternative hypotheses leading to improved models, additional and more content-valid items, more data gathering and so on. The cycle continues, until a working model has been established that is 'good enough' – one that the investigator can live with, at least for a while, given the constructs and limits of real-life research".*

Central to this whole process is the concept of construct validation. Scale construction and construct validation go hand in hand and one cannot be separated from the other.



### 4.1.3 Reliability and Validity

Moving to the construction of a scale raises the question of reliability and validity; that is, that we can trust that a measure has a particular meaning in relation to our theory and research. This is sometimes referred to as generalisability or the degree to which we can make inferences from our measurements or observations to other samples, items, measures, methods, outcomes, settings and so on (Cronbach, Gleser, Nanda, & Rajaratnan, 1972).

Historically, reliability and validity have been treated separately. Reliability refers to the consistency of a measurement procedure, and indices of reliability describe the extent to which scores produced by the measurement procedure are reproducible. Within classical test theory this is represented by the formula  $T = X - e$ . Thus the measurement  $X$  is an imperfect measure of  $T$  because it is affected by  $e$ . Such errors are assumed to be random and would therefore lead to different results each time the measure was used.

A number of types of reliability procedures have been used which clearly take into account different types of error (John and Benet-Martinez, 2000). Test-retest designs estimate how much responses vary within individuals across time and situations. Equivalence procedures estimate error due to different content sampling and item-selection. Internal-consistency procedures offer an estimate of error associated with item selection (error is high when items are heterogeneous in content and lack content saturation). Clearly no one measure of reliability on its own is sufficient to show that a measure is free from excessive random error.



Validity poses a different problem. That is to what extent does the measurement procedure measure what we want it to as opposed to something else? If it measures something else it will contain systematic error, which will be reproduced again and again.

Traditional descriptions of validity describe three main types (Cronbach & Meehl, 1955).

*Content Validity* is established by demonstrating that the items are a representative sample of the universe of item content relevant to the construct.

*Face Validity* concerns theoretical considerations about the appropriateness of the items, particularly whether they appear to assess attributes relevant to the intended construct.

*Criterion-oriented validity* is considered under two headings. Concurrent validity is the extent to which the measure relates to relevant criteria obtained at the same time and predictive validity refers to the extent to which a measure can predict relevant variables in the future.

Historically, questionnaire construction involved one of three approaches each favouring a particular type of validity at the expense of others. (Burisch, 1984, 1986).

The external approach emphasises maximising criterion validity. A large number of theoretical questionnaire items would be administered to pre-selected criterion and



control groups. The items that successfully differentiated between the groups would be retained regardless of the actual item content or broader theoretical considerations.

The rational, intuitive, or deductive approach generated questionnaire items on the basis of theory. The resulting scales were face-valid with obvious item content. However, such an approach often lacked evidence for structural validity.

The internal or inductive method relied upon exploratory factor analysis. The focus here is on discovering the factor structure within a large set of questionnaire items. However, the focus on structure was often at the expense of theoretical construct definitions, substantive validity evidence, and criterion validation.

The limitations inherent in single approaches led to appreciation of the 'criterion problem' (Cronbach and Meehl, 1955). Any one external criterion is also only a measure that is itself an imperfect indication of the construct to be measured. If there is no single criterion against which the test can be validated how can we establish inferences about the meaning of test scores? Construct validity is directly concerned with the theoretical relationship between a measure and other variables. It is the extent to which the measure 'behaves' like the construct it purports to measure in relation to other variables. Thus 'construct' becomes central to the notion of validity in scale construction and what seemed like different types of validity are now seen as just different sources of evidence that address particular questions of construct validity.

A scale is valid to the extent that it measures, and only measures, the construct in question – measures are imperfect indicators not only because of random errors but because they also measure constructs we did not intend to measure and therefore



include systematic errors (Judd and McClelland, 1998). Thus scores on an observed variable potentially reflect three sources of variance: (a) the construct we intend to measure (convergent aspects of validation); (b) a variety of other constructs we would like to avoid measuring (discriminant aspects of validation); (c) random error (or unreliability). This broad construct view thus highlights convergent and discriminant validity and considers reliability as just another piece of evidence for the construct validity of the proposed measure.

#### 4.1.4 Construct Validation

Messick (1989, 1995) has described a comprehensive programme of construct validation. He sees validity as an 'integrative evaluative judgement' of the degree to which evidence and theoretical rationales support the adequacy and appropriateness of the measure. Thus ultimately we can only describe validity supporting evidence rather than claiming that a measure is valid.

Messick (1989) specified six forms of evidence that should be sought to examine construct validity.

*Content validity* refers to evidence that the items adequately measure the construct and do not measure aspects not included in the construct. There are a number of procedures researchers might use. For example, researchers might ask expert judges to review the match between item representation and construct domain specification, and to add or delete items. Another procedure would be to use factor analysis to verify the hypothesized structure of the content domain.



*Substantive validity* evidence makes use of substantive theories and process models to support the interpretation of test scores. Relevant procedures might involve differentiation between criterion groups assumed to differ in the relevant process.

*Structural validity* evidence requires that the correlations (or factor) structure of the measure is consistent with the hypothesized internal structure of the construct domain. Both exploratory and confirmatory factor analysis can be used for this purpose.

*Generalisability evidence* demonstrates that score interpretations apply across tasks or contexts, times or occasions, and observers and raters. Thus this describes the limits beyond which interpretation of the measure should not be extended. The problem is exemplified by the generalisation of results from 'convenience samples' such as students to groups that are less educated, older or come from different ethnic or cultural backgrounds.

*Consequential validity* evidence focuses on the personal and societal consequences of score interpretation and use. This is obviously important in education and employment where issues of test bias and fairness are of great importance.

*External validity* covers a broad range of both convergent and discriminant evidence and refers to the ability of a measure to predict conceptually related behaviours, outcomes or criteria. Evidence for convergent validity is gained when different measures representing the same underlying construct produce



The result is essentially the same result. Evidence for discriminant validity is gained when possible measures theoretically not related to the construct do not respond similarly.

Thus according to this approach the validity of a particular measure can never be established but is always an enduring body of evidence. Validity evidence cannot be represented by a single quantitative index but only by qualitative summaries.

## **4.2 Development of a scale (CATA)**

### **4.2.1 Introduction**

The CATA was developed by the application of a 'rotational sequential strategy' for scale development that sought to maximise construct validity at every stage of construction. The procedure is similar to that described by John and Benet-Martinez (2000).

- a. generating hypothesis
- b. building a model
- c. generating item pool
- d. writing items
- e. constructing a scale
- f. gathering and analysing data
- g. testing model
- h. generating improved hypothesis



The main innovation adopted here is that it makes explicit that within the sequence it is possible to go back to an earlier stage at any point in the light of information gained.

Thus here the process of generating items (c) led to the description of a more sophisticated model, which in turn led to the generation of more items. There seems to be no logical reason why one should not return to any earlier stage from any later stage if the accumulated evidence suggests this.

#### 4.2.2 Principles guiding scale construction

A number of principles based on those proposed by Jackson (1970) were used to guide the development of items to be included in the rating scale.

1. overwhelming importance of theory
2. importance of fostering homogeneity and generalisabilities of items.
3. importance of fostering convergent and discriminant validity
4. importance of clarity
5. importance of cost

Definition of an item pool in relation to a well formed hypothesis not only provides a basis for drawing inferences concerning content validity, but also allows stronger inferences concerning the predictive power of the measure, i.e., external validity (Jackson, 1970).

Homogeneity and generalisability would appear to be contradictory. However both are important in scale construction. Homogeneity implies that items measure the same underlying dimension, to which all the items ideally show a relation. It emphasises the



sameness of items (Green, 1954). Generalisability on the other hand represent the degree to which items measure an underlying dimension adequately and sample the universe of situations in which the variable may be manifest (Cronbach, Rajaratnam and Gleser, 1963).

#### 4.2.2 Summary of stages (c) and (d)

The Campbell and Fiske (1959) article on convergent and discriminant validity focussed on the important requirement that a scale should not only relate to conceptually similar measures, but should not correlate highly with theoretically unrelated constructs. This is often done as part of the final validation process when the scale is completed.

However, as pointed out by Jackson (1970) investigators who postpone their concerns about convergent and discriminant validity until then may find they have waited too long.

Importance of clarity underlies the logic of all questionnaire research that requires that all respondents be confronted with the same questionnaire, so that any differences between people in their responses are due to real differences relating to the construct under investigation. This obviously bears on the reliability aspect of construct validity. Visser, et al (2000) advise that items should avoid ambiguity and be written using short, simple words that are familiar to people.

Cost is an important consideration in scale construction. Completing a questionnaire may have all sorts of costs attached for the individual which may affect the quality of their response. A long questionnaire, with complicated difficult to read items, is likely to cause fatigue and frustration thereby compromising performance and increasing random error. If it is possible to identify a small set of items written in simple familiar words that approximate the properties of a much larger set using more exacting words



this may reduce this problem without significantly compromising other aspects of validity. The scale developer should give thought to the optimal trade-off between the two (De Vellis, 1991).

#### **4.2.3 Summary of stages (a) and (b)**

According to the theory described earlier, people of low SES are more likely to decide to stop attending psychotherapy because they have a higher cost attached to attending and will have lower expectations for therapy than people of higher SES.

Differences in cost arise from differences in people's dynamic interactive network. Additional costs will impact upon the decision/action pathway and deflect it away from psychotherapy attendance. Costs arise from demands interacting with liabilities in relation to attending psychotherapy. Demands are claims on resources such as time, energy, attention etc. Liabilities refer to lack of resources or to other factors that interfere with attending therapy such as lack of money or skills etc. Differences in expectations for outcomes arise because people of low SES perceive themselves to have relatively less direct control over their lives and see therapy as irrelevant to their problems. Thus the original tentative hypothesis has been developed into a clear model to guide subsequent stages of construct development.

#### **4.2.4 Stage (c) Generating a universe of items**

The literature reviewed in chapter 1 and 2 was inspected for references to reasons for non-attendance at first appointments or attrition from therapy in order to establish a comprehensive universe of possible items. These were placed into lists in the order in



which they were identified with no attempts made at this stage to remove duplicate or overlapping items (Tables 1 to 5 Appendix A).

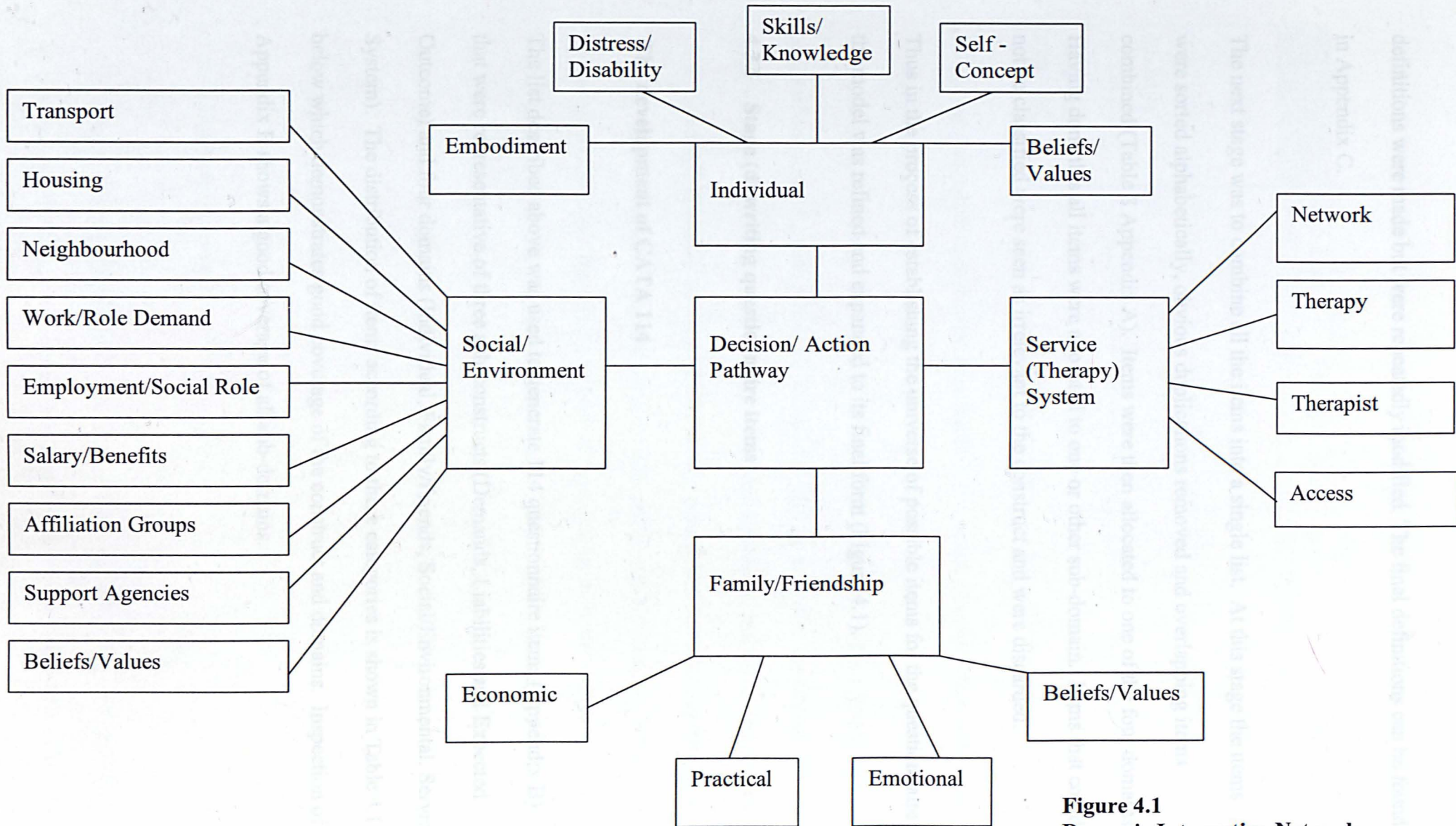
The next task was to consider the domains and sub-domains from which items were extracted. The original model specified only the two domains within the network: the 'individual' and the 'environment'. Thus everything not seen as individual was grouped under environmental. The literature was searched for systems of classifying variables to guide the selection of network domains. The results are listed in Table 6 Appendix A.

The selection of domains involved looking for rational face-valid domains within those listed. Two domain categories immediately suggested themselves. First, the individual as being an essential element of the model and service (therapy) system as being the domain under study. The selection of the other categories was influenced by repeated assertions in the literature that close network ties (family and friends) act as powerful mediators of stress arising from more distal causes (social/environmental).

Sub-domains suggested themselves as a way of ensuring that each domain was adequately represented and arose partly in the process described above of selecting domain categories and partly by face valid grouping of items identified from the literature suggesting themselves (Table 7 Appendix A).

Before continuing any further it was necessary to develop mutually exclusive definitions for the variables described above. The research literature was reviewed for evidence bearing on the nature of each variable. In short, this was a conscious attempt to undertake the foundations for the substantive component of validity. Tentative





**Figure 4.1**  
**Dynamic Interactive Network**



definitions were made but were repeatedly modified. The final definitions can be found in Appendix C.

The next stage was to combine all the items into a single list. At this stage the items were sorted alphabetically, obvious duplications removed and overlapping items combined (Table 8 Appendix A). Items were then allocated to one of the four domains. Having done this all items were allocated to one or other sub-domain. Items that could not be classified were seen as irrelevant to the construct and were discarded.

Thus in the process of establishing the universe of possible items for the questionnaire, the model was refined and expanded to its final form (Figure 4.1).

#### 4.2.5 Stage (d) writing questionnaire items

##### **The development of CATA 114**

The list described above was used to generate 114 questionnaire items (Appendix B) that were representative of three sub-constructs (Demands, Liabilities and Expected Outcome) and four domains (Individual, Family/Friends, Social/Environmental, Service System). The distribution of items according to these categories is shown in Table 4.1 below which demonstrates good coverage of the construct and domains. Inspection of Appendix B shows a good coverage of all sub-domains.



**Table 4.1. Distribution of questionnaire items generated**

	Individual	Family/Friends	Social Environment	Service
Demand	8	8	8	12
Liability	11	11	7	13
Expected outcome	9	9	9	9

Items were written to reflect as far as possible only one sub-domain while at the same time reflecting only one construct. Items were judged not only from the point of view of the conformity with the definition of the sub-scale they were written for but also in terms of convergence with other sub-scales of CATA or irrelevant constructs. Thus both convergent and discriminant validity were emphasised within the scale as well as externally to other measures. In practice this was very difficult to attain as convergent and discriminant aspects of content were not necessarily complementary. While focusing on convergent aspects it was easy to overlook discriminant aspects and vice versa. In developing the items it was necessary to judge them explicitly in terms of not only their convergence with the desired sub-scale but also their distinctiveness from other sub-scales. Some of the problems encountered are described below.

### **Problems of framing questions:**

#### **I. Specificity of items**

In order to sample adequately the universe of all possible items the researcher is confronted with the problem of either having too many items, all measuring some



small specific dimensions that might miss some important aspects and fail to measure adequately the construct, or too few questions that are not specific enough which, although adequately measuring the construct also bear on other constructs.

Thus:

e.g. I have problems getting to the hospital;

is likely to capture all of the problems including the most important but it may capture reasons that belong to conceptually different categories.

e.g. disability (personal)  
lack of transport (social/environmental)  
fear of therapy (service/therapy)  
money (family/friends)

Or:

e.g. I have problems affording transport to get to hospital.

can be so specific so as to require many items to cover adequately even the single sub-construct of transport.

The approach taken was to devise statements that were as broad as possible but that should largely belong only to one category

e.g. I have problems with transport when getting to appointments  
(costs, hassles etc).



## II. Related to (1) but not identical is whether items relate to all respondents.

It is not likely that all items will relate to all respondents. For example, some people will have a job while others may be unemployed. Since problems getting off work may be a major problem for many people when attending therapy, this construct cannot be lightly discarded. Two strategies were employed to combat this problem.

Include balancing items:

e.g. I have problems getting off work

I have problems with childcare

Write inclusive items:

I have problems with other commitments (e.g., work, family etc)

## III. Writing positive and negative items:

Items generated for this research are all negative, i.e., reasons for dropping out of therapy. Convention often decrees a scale should contain positive and negative items. However, there seem to be problems applying that to this questionnaire, particularly in relation to constructing true reversals and clarity. Examples are given below.



Reversals: not relevant for my problems

Someone close to me resents me having someone else to talk to.

Someone close to me is supportive of me having someone else to talk to.

Clarity: (e.g. poor living conditions)

Someone close to me does not mind me having someone else to talk to.

These problems were avoided by phrasing all statements in the negative.

#### IV. Meaning of items.

Items can be ambiguous as to their meaning in relation to the theory under consideration

e.g., I cannot see the point of attending therapy.

Can be construed as either:

A lack of psychological mindedness (client)

or

The irrelevance of therapy to this person's problems (therapy)

We may try and solve this problem by trying to be more specific:



e.g. Therapy is not relevant for my problems.

However this may be construed as either:

The person perceives the cause of their distress as being outside of the domain of therapy effectiveness (e.g. poor living conditions)

Or

The person believes that therapy is not an effective treatment for their symptoms (i.e., they need medication).

The problem can be reduced by making the item even more specific, for example:

Therapy cannot solve the problems I have in life.

However, no matter what the researcher does, items will always be problematic in one way or another. All that can be done is to seek to minimise extreme sources of error arising from poor discriminant and convergent validity at this stage. Poor items will get through to later analysis to be removed, but it is hoped that because of the care taken at this stage sufficient good items will remain to produce an adequate scale.

#### **4.2.6 Stage (e) Constructing a scale**

Before considering the evaluation of items for inclusion in the measure, the response scale format has to be decided upon. In addition to questionnaire items a measure is complete only if there is an appropriate response scale. A desirable quality of a



measurement scale is variability. If a response scale fails to discriminate differences in the underlying construct, then the utility of the measure will be limited (De Vellis, 1991).

One of the most commonly used formats is the Likert scale. Statements representing the construct are followed by options that indicate varying degrees of agreement with the statement. The Likert format is commonly used in psychological research for measuring attitudes, beliefs, behaviours etc. and would appear to be compatible with the present area of study. It was therefore chosen for developing CATA.

Some general issues relating to response scale formatting in relation to variability are examined below.

### **Binary Rating**

A common response format gives subjects the simple choice of either agreeing or disagreeing with each statement given. A major shortcoming of such binary responses is that each item can have only minimal variability, thus reducing its ability to discriminate. Furthermore, carrying out various statistical analyses requires the correlation of items with one another and with other variables. When responses are in a binary form these correlation coefficients may be subject to extreme distortion (Comrey, 1988). In addition the apparently simple task of agreeing or disagreeing may be deceptive and, some argue, more ambiguous than scales that offer a range of agreement and disagreement. Visser et al (2000) argue that respondents first decide how much the statement applies to them and then convert it into the binary response, thus adding an extra stage where errors can enter.



## **Length of Scale**

A great number of studies have compared the reliability and validity of scales of varying lengths. For bipolar scales (running from positive to negative with neutral in the middle) reliability and validity are highest for about seven points (Matell and Jacoby, 1971). In contrast, for unipolar scales (running from low to high) approximately five points seems optimal (Wilkman and Warneroyd, 1996).

## **Labels of Scale**

Studies suggest that data quality is better when all scale points are labelled with words than when only some are (Krosnick and Berent, 1993). Furthermore, respondents are more satisfied when more rating scale points are verbally labelled (Dickinson and Zellinger, 1980). However, when labelling points it is obviously important to strive to select ones that have meanings that divide up the scale into approximately equal parts (Klockars and Yamagist, 1988).

## **Response Set**

Response set is often thought to be a problem with rating scales. This is often controlled by making half of the items make assertion in the opposite direction to the other half. However it is difficult to write a large set of reversals without using the word 'not' or other such negatives, and evaluating assertions that include negatives is cognitively



burdensome and error-laden for respondents, thus adding measurement error (Eifermann, 1961).

## **Evaluation of item convergent and discriminant validity-development of CATA 72**

Having written the 114 items (Appendix B) it was decided to subject them to a panel of raters to test the convergent and discriminant aspects of the items in relation to the construct and domains for which they were written. This method is described by DeVellis (1991). Ten psychologists and therapists who had first been instructed in the underlying theory were asked to allocate each item to one or other domain and one or other construct. They were supplied with written definitions of the constructs and domains along with the list of items. (All the material used at this stage is contained in Appendix C.) Items that poorly reflect a definition will tend to be more randomly allocated across definitions and lack convergence with its intended position. Similarly, items that accurately reflect a definition but also reflect another definition will tend to be distributed between them and therefore lack discrimination. Items with good convergent and discriminant validity will tend to be allocated to only one definition.

Generally speaking this process supported the allocation of items. However, there were problems with poor convergence with some items moving from the 'Demand' to 'Liabilities' sub-construct and vice versa and items moving from 'Service System' to the 'Individual' domain and vice versa.

For example:

'I feel ashamed of having to see a therapist'



Moved from the 'Demand' to 'Liability' sub-construct and:

#### 4.2.7 Stage (f) Gathering and analysing data.

'I dislike confronting painful emotions in therapy'

#### Item statistical analysis - development of CATA32

moved from the 'Service System' to 'Individual' domain.

Having developed a 72 - item version of CATA, the next stage was to administer it to a

This seemed to be a particular problem relating to attribution on the part of the raters that will be discussed further in the discussion section. Essentially, there appears to be a tendency for therapists to attribute difficulties to the patient rather than the process they are engaged in.

The purpose of the study and requested patients to complete the questionnaire and give

The total number of items selected was reduced to 72 with six items representing each of the construct/domain cells ( i.e. 24 items each for the Demand, Liability and

Expected Outcome sub- constructs ). Items were selected on the basis of evidence of relatively good convergence and discrimination and the need to sample adequately the constructs and domains including the sub- domains. An item was considered for

retention if six or more raters had allocated it to the appropriate sub-construct and domain. However, in order to achieve the second aim of ensuring good coverage, items were included that raters "attributed" to the wrong category, provided they showed good convergence and discrimination in this new position. Thus some items that were of questionable validity were allowed through to the later stages of development to be evaluated further there.

The questionnaire pack was administered to patients following their first attendance.

Therapists were asked to verbally request patients' participation, while making it clear

that participation was entirely voluntary. If a patient declined at this stage, the therapist



#### **4.2.7 Stage (f) Gathering and analysing data.**

##### **Item statistical analysis - development of CATA32**

Having developed a 72 - item version of CATA the next stage was to administer it to a patient sample. It was proposed to administer CATA 72 to all patients scheduled to attend the Clinical Psychology Department for psychotherapy during a three-month period. The questionnaire pack contained CATA 72, a personal information questionnaire and a letter to patients (Appendix G). This letter gave an indication as to the purpose of the study and requested patients to complete the questionnaire and give permission for use of information held on items. It was clearly stated that they could decline to be part of the study.

Prior to this, a rationale for the procedure together with a copy of the questionnaire and letter to patients was submitted to the Local Ethical Committee of Dewsbury District Hospital and permission obtained (Appendix H). Given that the procedure involved only the completion of a questionnaire under circumstances where patients could easily decline to do so, the Ethical Committee did not think that separate written consent to be part of the study was necessary. Completion of the questionnaire implied consent to be part of the study as outlined in the letter to patients.

The questionnaire pack was administered to patients following their first attendance. Therapists were asked to verbally request patients' participation while making it clear that participation was entirely voluntary. If a patient declined at this stage, the therapist



returned the uncompleted forms to the researcher. If a patient accepted, they were taken to a room to complete the questionnaire in private. This gave them a further opportunity to decline if they wished to. Questionnaire packs were marked with a code to ensure that they could be matched to other data held on the individual.

All data was entered into and analysed using 'Statistica' for Windows statistical package.

### Sample characteristics

182 patients were scheduled to complete CATA 72. 73 were patients already in therapy with an average attendance of 23 appointments, with the remaining 109 attending for their first appointment. 107 patients completed the questionnaire while 75 did not. The reasons for not completing the questionnaire are as follows.

**Table 4.1 Reasons for non-completion of questionnaire (N=75).**

		Completers (n=107)	Non-completers (n=75)
1	Declined		50
2	Language problems		5
3	Incomplete data		4
4	Failed to attend		16

Data available for all patients were analysed to investigate any differences between those who completed the questionnaire and those who did not. These data included gender, age and Townsend deprivation score.



This latter score was obtained from Calderdale and Kirklees Health Authority for all postcodes within the local area. Townsend scores are calculated using the percentage of unemployment, the percentage of households with no car, the percentage of overcrowded households and the percentage of households not owned by their occupier within each enumeration district (i.e. area covering approximately 500 people for census purposes). Various statistical techniques are then used to standardise these rates (Z scores). A positive figure shows an area is relatively deprived, whereas a negative figure shows an area is relatively better off.

Existing patients were more likely to complete the questionnaire than newly referred patients ( $\chi^2=19.8$ ,  $df=1$ ,  $p=0.00$ ), with 78% of existing patients completing but only 46% of new patients doing so. There were no significant differences observed between the two groups on the other available data (Figure 4.2).

**Table 4.2 Comparison of Questionnaire Completers and Non-completers.**

	Completers (n=107)	Non-completers (n=75)
Female	71 (60%)	47 (40%)
Male	36 (56%)	28 (44%)
Average age	37.3	39.7
Deprivation score	0.723	- 0.185
Terminated therapy	20%	30%
Existing patients	57(78%)	16 (22%)
New patients	50 (46%)	59 (54%)



There was, however, a statistically non-significant difference between the deprivation scores for the two groups (see Fig 4.2) with 'completers' having a higher score than non-completers ( $t = -1.15$ ,  $df = 167$ ,  $p = 0.11$ ). This goes against what might be expected from the theory, as it predicts that people with higher deprivation scores (i.e. lower SES) would have more trouble with therapy tasks. The meaning of this difference is unknown and a number of ad hoc analyses failed to uncover any clues.

### Item analysis and scale development.

CATA 72 data from the 107 participants who completed the questionnaire were examined for fitness for each item for inclusion in the final scale.

This involved inspecting:

- I. Item response profile
- II. Convergent and discriminant validity
- III. Item saturation
- IV. Review to evaluate generalisability and representativeness

Statistical and descriptive data used at this stage are contained in Appendix E and all tables referred to unless otherwise stated can be found there.

The item response profile was examined for each item to see if the proportion of subjects scoring across the response range was acceptable (Table 4). An item on which very few subjects score will have a very small variance and will fail to add appreciably to scale reliability and validity (Jackson, 1970). Generally speaking, most items had a



low response rate with '0' or 'Not at all' being the most frequent response. Items were selected for retention on the basis of having a mean greater than 0.35 and 30% or more subjects scoring greater than 0. This removed the obviously weak items but ensured sufficient items remained for further analysis. At the end of this stage of the process, 31 items were removed and 41 items remained: 12 Expected Outcome, 15 Demand and 14 Liabilities items. The effect of this procedure is summarised in Table 4.3 below, which shows that the excluded items had a lower mean score and lower mean variance than the retained items.

**Table 4.3 The effect of removing weak response items**

	Retained items	Excluded items
Mean score	0.718	0.314
Mean variance	1.062	0.547

Convergent and discriminant validity were enhanced by examining each item's relationship to its own sub-scale and to the other two sub-scales. Cronbach's Alphas were calculated for each sub-scale and items that did not contribute substantially were discarded, thus improving discriminant validity of the sub-scales. Following this, item correlation both with their own sub-scale and with the other sub-scales was examined (Pearson Product-Moment Correlation). Items that correlated more highly or just as highly with the other sub-scales as with their own were discarded, even if they correlated highly with their own, thus improving discriminant validity of the sub-scales. At the end of this process there remained three eight-item sub-scales (Tables 5 to 25). Item saturation with the total scale was examined by calculating item correlation with the scale total (Table 26). Sub-scale inter-correlations were also examined (Table 27).



At the end of these procedures 24 items were retained comprising 3 eight-item sub-scales. A summary of the effects of these procedures is illustrated in Table 4.4 below, which shows that retained items tend to demonstrate better convergence and discrimination than excluded items.

**Table 4.4 Summary of effects of convergent and discriminant enhancing processes**

	Retained items	Excluded items
Average correlation with own sub-scale	0.554	0.491
Average correlation with other sub-scales	0.381	0.395
Average correlation with total scale	0.473	0.431

### Confirmatory Factor Analysis (CFA)

Factor analysis is typically used by the researcher who wants to demonstrate that various questionnaire items fit together logically in a way that has meaning in light of the construct being researched. Exploratory factor analysis is used to explore the latent constructs needed to account for the correlations between questionnaire items. The researcher ideally seeks 'simple structure,' where all the items on any given latent construct correlate highly with one another but do not correlate highly with items on any other latent construct. It is often used where there is no prior theoretical prediction as to the number or nature of latent constructs. It therefore lends itself well to various stages of theory development.



Confirmatory factor analysis on the other hand is used where there is a priori specification of the number and nature of the latent constructs. Questionnaire items, having been developed from the underlying theory, are hypothesised to correlate with one another in predictable ways. Essentially, confirmatory factor analysis compares the obtained pattern of results with these specified by the theoretical model to see how well the results fit.

A major issue in all factor analysis involves determining the number of subjects required to obtain a pattern that is stable and representative of the population pattern. In confirmatory factor analysis the less stable and representation of the population the pattern is the less importance or meaning can be attached to a failure to find a good fit.

Various statistical fit indexes have been produced, all of which appear problematic in one way or another (Wenger and Fabrigar, 2000). However, one measure they make a convincing case for is Steiger's (1990) Root Mean Square Error of Approximation (RMSEA) Method. In addition to its other perceived merits it is also relatively unaffected by sample size. Notwithstanding this however, with so much uncertainty still surrounding this issue Boomsma's (1982) recommendation that results of confirmatory factor analysis should be treated with caution when the sample size is less than 200 should still be respected.

Given the perceived problems with confirmatory factor analysis Wenger and Fabrigar (2000) recommend using more than one method to evaluate results.

The first method employed here is degree of fit between the model and data. Browne and Cudeck (1992) recommend the following values of RMSEA.



Thus DAPIN gains some moderate support from the process of confirmatory factor analysis in that the three factors are not seen as a poor fit to the fit index and that they are a better fit  $= < 0.05$  indicates a close fit  
 $= 0.08$  reasonable fit  
 $= > 0.10$  poor fit

The other method is to compare the results obtained for the preferred model with results obtained for another 'plausible' model (Wegener and Fabrigar 2000). If the preferred model fits the data (as indicated by RMSEA) better than the plausible alternative model(s) then we can argue for the superiority of the preferred model. Thus this does not prove that the researcher's model is 'right'; only that it is more consistent with the data than other possible models. In this case a one-factor model was selected to represent an alternative model that CATA may reflect a single construct such as difficulty in doing things in general.

### Summary of CFA fit indices CATA 24

Data from CATA 24 were subjected to confirmatory factor analysis. Two models were evaluated. First, the preferred three factor model and then an alternative one factor model (Table 28). A summary of the results is shown below.

	Point estimate	RMSEA	
		Lower 90%	Upper 90%
Preferred Model (three factors)	.085	.071	.097
Alternative Model (one factor)	.100	.087	.112



Thus DAPIN gains some moderate support from the process of confirmatory factor analysis in that the three factors are not seen as a poor fit by the fit index and that they are a better fit than an alternative one factor solution.

### Construct representativeness of scale

The final stage involved ensuring that the remaining items were representative of the original construct (Table 29). Attempting to reduce the scale to a reasonable size and for items to meet the various criteria described above runs the risk that the coverage of items in the reduced scale will not be as good as the larger scale and this is what was found here. Whether the final scale is deemed good enough or not will always be a matter of judgement as to whether its lack of coverage fatally compromises its claim to represent the underlying construct. Table 4.5 below shows the final distribution of CATA 24 items.

**Table 4.5 Distribution of CATA 24 items**

	Individual	Family/Friends	Social Environment	Service
Demand	1	1	4	2
Liability	4	0	2	2
Expected outcome	4	2	2	0

Each sub-construct is represented by 8 items. However, not all domains are equally represented, with Family/Friendship and Service system under-represented. Both of



these would seem to be crucial to the theoretical model and so it seemed inconceivable to proceed with a scale where they were not adequately represented.

When reviewing the items another concern came to light. In the original model efficacy beliefs (self-efficacy and outcome expectancies) were considered an integral part of each domain and essential to the model. However, items relating to efficacy beliefs did not survive the later stages of sub-scale construction described above. Given their importance to the theory it did not seem appropriate to discard them altogether and by including discarded efficacy items the under-represented domains could be strengthened. The dilemma was as to how these recovered items could be included.

The resolution was to create a new sub-scale for efficacy belief items.

Even though this goes against the original theory where beliefs were seen as just particular examples of liabilities, there is logic to including efficacy items into a separate sub-scale. The HAPA model clearly specifies two separate stages internal to a patient following a healthcare pathway. In this model, self-efficacy and outcome efficacy beliefs are said to impact on the earlier decisional/motivational stage. At the subsequent action/maintenance stage, barriers and resources (demands and liabilities) dominate and interact with self-efficacy beliefs. The patient sample used in the development of CATA incorporated only patients who within this HAPA would be at the latter stage and so people with negative beliefs would already have tended to terminate. Thus, efficacy beliefs remain part of the overall construct under investigation, but are seen as a separate sub-construct for the time being. Whether they should remain separate or not is an open question at this stage and waits empirical testing with an appropriate patient sample.



### Constructing an additional sub-scale

Eight items representing efficacy beliefs, which survived to be part of CATA 72 were subjected to the same analysis as the other three sub-scales (Tables 30 to 33). Alpha was calculated and the item-total correlations inspected for weak items. As none of the correlations was less than the weaker items retained in the other three sub-scales it was decided to retain all eight. Correlations were calculated for the eight items with their own sub-scale total and with the other three sub-scale totals. Since no item correlated more with another sub-scale total than with its own, all items were retained. Item saturation was inspected by calculating correlations between the sub-scales and between individual items and the scale total (Tables 35 and 36).

Thus out of this process a new scale with four sub-scales emerged that includes items seen as central to the construct and with a superior representation of the domains thought relevant to the construct (Tables 37 and 38).

**Table 4.6 Distribution of CATA 32 items**

	Individual	Family/Friends	Social Environment	Service
Demand	1	1	4	2
Liability	4	0	2	2
Exp Outcome	4	2	2	0
Beliefs	2	2	1	3



Table 4.6 shows the distribution of CATA 32 items. In addition to now including efficacy beliefs, CATA 32 has a better coverage of the four domains than CATA 24.

CATA 32 was subjected to confirmatory factor analysis in the same way as described for CATA 24.

### Summary of CFA fit indices CATA 32

	Point estimate	RMSEA	
		Lower 90%	Upper 90%
Preferred Model (4 factors)	.113	.104	.122
Alternative Model (1 factor)	.121	.112	.129

Perhaps not surprisingly, CATA 32 data was a poor fit of the model and so DAPIN does not receive additional support from this analysis. However the model now has to include the possibility that SES acts on the pathway through different if related mechanisms at different stages. Therefore it may be unreasonable to expect a positive result with an idiosyncratic sample representing only a late stage of the pathway. In the circumstances the new sub-scale was left in for further exploration.

## 4.3 Stage (g). Testing the model.

### 4.3.1 Introduction

The following sections contain a descriptive exploration of the data for the 50 new patients who completed CATA 72 at the outset of their therapy. Patients' discharge



statuses were examined after their first five sessions, i.e. the 'negotiation' stage of the pathway. Patients who unilaterally terminated from therapy and who were judged by their therapist not to have completed their therapy were categorised as 'terminators'. Those who had agreed discharge or were still continuing in therapy were categorised as 'continuers'. The data from these two groups were then examined for evidence of convergent and discriminant validity and the predictive validity of the measure CATA32.

Statistical tests have certain assumptions underlying them. For parametric tests it is assumed that the populations are normally distributed and have the same variance. For non-parametric tests only the assumption of equal variance applies. Throughout the analyses to be described, the data have been examined where appropriate using Levene's Test (Homogeneity of Variance) and by examining the histograms for normality. It is, however, according to Cohen (1977) well established that moderate violations of these assumptions have generally negligible effects on the validity of the null hypothesis tests.

The small sample size (N=50) places restrictions on the interpretation of any statistical analyses undertaken. Conventional statistical analysis tends to emphasise the probability of rejecting the null hypothesis when it is not true. There is, however, another issue with which to contend. That is accepting the null hypothesis when it is not true. This involves rejecting as meaningless an observed difference between groups when in fact it is meaningful.

Statistical power as it is known relates to the probability of finding a statistically significant result where a meaningful difference exists. This relates to three aspects of



the test situation: *Effect sizes exceed that found here, in many of the tests where group numbers can fall to ten.*

*The significance criterion* – The more stringent the researcher is in trying to avoid a type I error the greater the probability is of making a type II error. Thus the greater the significance criterion the lower the statistical power of a test. *Investigation with a more appropriate sample size.*

*The sample size* – Standard error depends upon sample size. Thus as the sample increases, error decreases and power increases.

*The effect size* – The size of the difference expected may vary considerably between test situations with even a small difference being important in many situations. The bigger the expected effect size the greater the statistical power and therefore the smaller the sample (N) required to demonstrate a significant result.

*4.3.3 Data*

Power and the other three factors are mathematically related in such a way that any one of them is an exact function of the other three. One of the most common uses of this relationship is to determine the sample size required in a given test situation. Even without exact calculations, however, it reminds us that small sample size increases the likelihood of rejecting a meaningful difference to the detriment of theory development.

*Education level*

Cohen (1992) summarises the sample sizes required for various statistical tests in order to ensure a statistical power of 0.80. At this level there is a one-in-five chance of accepting the null hypothesis when it should have been rejected. Cohen shows that in order to get a statistically significant result  $p > 0.05$  with a statistical power of 0.80 it is almost invariably necessary to have a sample size for each group greater than the  $N=50$  found here, except for the largest of effect sizes. Even with a large effect size the



required group sizes exceed that found here in many of the tests where group numbers can fall to ten.

In these circumstances non-significant results have to be treated with caution and any trends observed in the expected direction suggesting further investigation with a more appropriate sample size.

#### 4.3.2 Sample of patients used in the analysis

Data from the fifty new patients who had completed CATA72 at their first therapy appointment whose data were used in the development of CATA32 were selected for further analyses.

#### 4.3.3 Data

Patient data was obtained from two sources:

Data collected specifically for the study:

Education level

Employment level

Marital status

Living arrangements

Deprivation Score

CATA32 scores

Combination	Mean (SD)	SE	df	p
0.225	1.356	0.820	49	0.358



Data routinely collected:

The deprivation scores for the two discharge groups were analysed using a T test for independent samples. Deprivation scores for the two discharge groups show a non-significant difference in the expected direction. Statistical power was estimated using Cohen's (1977) suggested medium effect size  $d=0.50$  and using the group sizes ( $n=16$ ) and was found to be moderate. Levene's test was carried out and showed no significant difference in variance ( $F=0.178, df=48, p=0.675$ ).

#### 4.3.4 Convergent and discriminant validity

Table 4.6 Occupational class and discharge status

According to the model there should be a positive relationship between low SES, a high CATA32 score and early unilateral termination from therapy. These relationships are explored below.

	Class 1	Class 2	Class 3	Class 4	Class 5
Continuers	5	9	21	4	1
Terminators	0	0	7	2	1

#### The relationship between SES and unilateral termination.

The distribution of occupational class for the two discharge groups were analysed by

The first relationships to be explored are those between various measures of SES and unilateral termination. Deprivation scores, social class (by occupation), education level and employment status have all been routinely used as measures of SES in studies of attrition and health care utilisation. Although they do not always produce identical results, they have all been shown to relate to each other and to morbidity and healthcare utilisation.

Table 4.7 Deprivation scores and discharge status

Continuers(N=40)	Terminators(N=10)	t	df	p
0.225	1.386	- 0.929	48	0.358



The deprivation scores for the two discharge groups were analysed using a T test for independent samples. Deprivation scores for the two discharge groups show a non significant ( $t = -0.93$ ,  $df=48$ ,  $p=0.36$ ) difference in the expected direction. Statistical power was calculated using Cohen's (1977) suggested medium effect size  $d=0.50$  and using the harmonic mean of the group sizes ( $n=16$ ) and was found to be modest (power =0.41). Levene's test was carried out and showed no significant difference in variance ( $F 0.178$ ,  $df 48$ ,  $p=0.675$ ).

**Table 4.8 Occupational class and discharge status**

	Class 1	Class 2	Class 3	Class 4	Class 5
Continuers	5	9	21	4	1
Terminators	0	0	7	2	1

The distribution of occupational class for the two discharge groups were analysed by considering class to be an ordinal variable and carrying out a Mann-Whitney Test. The result was statistically significant ( $U=102.5$ ,  $p=0.018$ ). Levene's Test was carried out and shows no significant difference in variance ( $F 0.333$ ,  $df 48$ ,  $p=0.567$ ). Thus the data show a pronounced SES gradient with probability of unilateral termination increasing as occupational class decreases.

- 50% Occupational Class 5 terminated
- 33% Occupational Class 4 terminated
- 25% Occupational Class 3 terminated
- 0% Occupational Class 1 and 2 terminated



**Table 4.9 Occupational status and discharge status**

	Homecare	Employed	Unemployed	Student	Other
Continuers	8	15	11	1	5
Terminators	1	2	6	1	0

The data show a marked difference between those people who describe themselves as having an occupational role and those who describe themselves as unemployed.

35% Unemployed terminated

12% Employed terminated

11% Home carers terminated

**Table 4.10 Education level and discharge status**

	School	College	Degree	Higher
Continuers	17	18	4	1
Terminators	7	3	0	0

The distribution of level of education for the two discharge groups was analysed by considering education level as an ordinal variable and carrying out a Mann-Whitney Test. The results were not statistically significant ( $U=137.5$ ,  $p=0.13$ ). Despite this lack of statistical significance there is a marked gradient in the data along SES lines, with those people who indicated that they received only school level education being more likely to terminate.



Table 4.11 CATA 32 scores and deprivation scores

29% School only terminated

14% College terminated

0% University or above terminated

	Total	Demand	Liabilities	FF Outcome	Beliefs
Deprivation score	.25*	.31*	.22	.18	.25

Thus the relationship between the various measures of SES and unilateral termination from therapy supports the expectation from the literature and the DAPIN model that SES variables will affect unilateral termination from therapy, with those of lower SES more likely to terminate.

### **The relationship between CATA32 scores and various measures of SES**

According to the DAPIN model the lower a person's SES the higher the cost of attendance will be. Therefore it is expected that CATA32 scores will be related in a predictable way to measures of SES with people of lower SES having higher CATA scores.

Pearson Product Moment correlations were carried out to investigate the relationship between CATA scales and deprivation scores. Table 4.11 shows the correlations between deprivation scores and the CATA 32 total and sub-scale scores. The statistically significant correlation between the CATA total score and deprivation scores support in a broad sense that CATA is measuring something related to SES. However, only the Demand sub-scale correlation reaches statistical significance on its own. Using Cohen's suggested medium effect size ( $d = 0.5$ ) with  $N = 50$ , statistical power was found to be reasonably good (power = 0.69).



**Table 4.11 Correlations CATA total and subscales scores and deprivation scores**

	Total	Demand	Liabilities	Exp Outcome	Beliefs
Deprivation score	.28*	.31*	.22	.18	.25

Marked correlations are significant at  $p < 0.05$   $N=50$ .

Table 4.12 shows the distribution of CATA 32 scores by occupational class groups. In general the gradient supports the view that CATA scores are related to SES in that people with higher deprivation scores tend to have higher CATA scores.

**Table 4.12 CATA scores by occupational class groups**

	DEMAND	LIAB	EXP OUT	BELIEFS	TOTAL
CLASS 1 (N=5)	2.00	1.80	1.80	0.60	6.20
CLASS 2 (N=9)	3.88	6.00	7.11	4.56	21.55
CLASS 3 (N=25)	5.96	4.48	6.60	4.56	21.60
CLASS 4 (N=8)	6.50	6.16	6.50	5.00	24.16
CLASS 5 (N=3)	6.50	8.00	10.00	9.50	34.00
All Grps (N=50)	5.23	4.85	6.31	4.40	20.80
Kruskal-Wallis	H=10.26 p=0.04	H=7.86 p=0.09	H=5.73 p=0.22	H=10.69 p=0.03	H=9.77 p=0.04
Levene's Test	F=2.01 p=0.11	F=0.81 p=0.52	F=0.66 p=0.63	F=1.59 p=0.19	F=1.25 p=0.30

Kruskal-Wallis ANOVAs by ranks were carried out which revealed a statistically significant relationship between occupational class and CATA 32 Total scale scores.



The Demand and Beliefs subscales were statistically significant whilst the other two were not. Levene's Tests were carried out and failed to find any differences in variance.

Table 4.13 shows the distribution of CATA 32 scores by occupational status. What stands out is that people who are employed and unemployed mark the extremes, with the unemployed scoring higher on all scales. Those who describe themselves as home-carers score higher on the liabilities and beliefs sub-scales than those who are employed.

**Table 4.13 CATA scores by occupational status groups**

	DEMAND	LIAB	EXP OUT	BELIEFS	TOTAL
HEMOCARE (N=9)	4.66	5.77	4.11	5.55	20.11
PAID EMP (N=17)	4.70	4.23	6.35	3.47	18.76
UNEMPLOY (N=17)	6.58	5.35	8.23	5.52	25.70
STUDENT (N=2)	6.50	3.50	5.50	4.00	19.50
OTHER (N=5)	2.40	4.60	6.60	2.60	16.20
All Grps (N=50)	5.18	4.90	6.58	4.48	21.14

Table 4.14 shows the distribution of CATA32 scores by education level. Once more in a general sense CATA scores follow SES lines with those with less education scoring more highly. (The only anomalous score is that for higher degree level; however there is only one person in that category). Interestingly the biggest difference is between college and degree level with school only and college level being very similar. Kruskal-Wallis ANOVAs by Ranks were carried out which confirmed the lack of a statistically significant relationship between educational level and scores on CATA32.



**Table 4.14 CATA scores by education level groups**

	DEMAND	LIAB	EXP OUT	BELIEFS	TOTAL
SCHOOL (N=24)	5.29	5.33	6.20	5.12	21.95
COLLEGE (N=21)	5.52	4.52	6.42	3.85	20.33
DEGREE (N=4)	3.50	2.25	5.25	2.75	13.75
HIGHER (N=1)	2.00	13.0	24.0	9.00	48.00
All Grps	5.18	4.90	6.58	4.48	21.14
Kruskal- Wallis	H=2.67 p=0.44	H=4.71 p=0.19	H=3.31 p=0.35	H=3.78 p=0.28	H=3.74 p=0.29

All the various measures of SES employed here tend to support the theory that CATA is measuring a construct related to SES. However, it is only the demand sub-scale that stands out as clear-cut and consistent in this regard.

### **Relationship between CATA32 and unilateral termination**

CATA32 was developed as a measure of the cost of therapy attendance. Thus according to the DAPIN model, people who unilaterally terminate therapy should have higher CATA32 scores than those who continue. An analysis of variance was carried out to investigate this relationship. The data show that generally speaking Terminators tend to have higher CATA32 scores than Continuers. However, the analysis of variance showed that only for the Demand sub-scale does this reach statistical significance.



**Table 4.15 Summary of the analysis of variance CATA 32 and Discharge status**

	Continuers N=40	Terminators N=10	f	df	p	Levene's Test
Total CATA	19.30	28.50	2.83	48	.099	F=1.44 p=0.24
Demand	4.50	7.90	6.23	48	.016*	F=0.44 p=0.51
Liabilities	4.59	6.20	1.31	48	.257	F=1.68 p=0.20
Exp Outcome	6.00	8.90	1.50	48	.226	F=1.35 p=0.25
Beliefs	4.33	5.50	0.65	48	.423	F=0.36 p=0.55

Statistical power was analysed using Cohen's suggested medium effect size ( $f=0.25$ ) and using the mean sample size ( $N=25$ ) and was found to be modest (power = 0.42). Levene's tests were carried out and showed no significant differences in variance between the groups.

#### 4.3.5 Predictive Validity of CATA32

A key element of construct validation of a measurement tool developed from the underlying theory is its ability accurately to predict phenomena according to that theory. One method for exploring this relationship is to carry out a multiple regression analysis. In the simplest example each case provides a dependent and independent variable score. Each pair of scores is plotted against the x and y-axis and a line fitted through the points. If the points all fit the line perfectly, then the dependent variable is predicted perfectly from the independent variable. In practice this is unlikely and only a proportion ( $R^2$ ) of the dependent variable can be predicted by knowledge of the independent variable. Multiple regression calculates the independent contribution of



each independent variable to the prediction of the independent variable (B coefficients).

Multiple regression analysis was carried out to investigate the relationship between CATA scores and discharge status (Table 4.16). Only the Demand sub-scale showed a statistically significant relationship to discharge. Power analysis was carried out using Cohen's suggested medium effect size ( $f^2=0.15$ ) that revealed reasonable statistical power (power = 0.66).

**Table 4.16 Multiple regression analysis of the four CATA subscales with discharge status as the dependent variable.**

Sub-scale	Multiple R	R <sup>2</sup>	beta	p
Demand	0.414	0.172	0.465	0.01*
Liabilities			0.161	0.44
Exp Outcome			0.210	0.27
Beliefs			-0.420	0.10

An analysis of the relationship between three SES indicators and discharge status was also carried out using regression analysis (Table 4.17). Only Occupational Class showed a statistically significant relationship to discharge status. Power analysis was carried out using Cohen's suggested medium effect size ( $f^2=0.15$ ) that revealed strong statistical power (power = 0.84).



**Table 4.17 Regression analysis of Social Class with Discharge status as the dependent variable**

SES Indicator	Multiple R	R2	beta	p
Occup. Class	0.459	0.211	0.37	0.01*
Townsend			0.15	0.26
Education			-0.18	0.20

**Table 4.18 Predictive abilities of CATA32 scales**

These analyses show a weak relationship between socio-economic status and unilateral termination from therapy. Only the Demand sub-scale of CATA32 had a statistically significant relationship to discharge status and only one of the social class measures, occupational class, had a significant relationship to discharge status. Even these measures have modest predictive ability with the Demand subscale accounting only for 17 percent of the variance in discharge status and social class by occupation only 16 percent of the variance in discharge status.

An alternative analysis involves analysing CATA 32's predictive ability directly. That is, can CATA 32 identify people most likely to terminate unilaterally on the basis of high CATA scores?

To investigate this each sub-scale and the total scale scores were examined for their ability to predict unilateral termination. The method used was to set a cut-off score for each scale and then to vary it. A point is sought where as many people as possible who stopped would be identified as having this score or above, while at the same time seeking to minimise false positives among continuers. Clearly a scale that does not



correctly predict the majority of terminators and continuers will not lend much support to the theory or be of much practical utility. Two rules of thumb were used to guide the process. First, more than 75% of terminators had to be predicted and second, the number of false positives should not exceed the number of true positives.

Table 4.18 shows the results of applying this procedure to the CATA scores and illustrates the best cut-offs that could be found.

**Table 4.18 Predictive abilities of CATA32 scales**

	Scale cut-off	% True positives	Ratio False positives
CATA 32 Total	20	60	2.3 to 1
Demand sub-scale	7	80	0.7 to 1
Liabilities sub-scale	6	40	4.0 to 1
Exp Outcome sub-scale	7	20	4.0 to 1
Beliefs sub-scale	5	40	4.0 to 1

It can be seen from the table that only the Demand sub-scale can meet the criterion laid down, being able to predict 80% of people who unilaterally terminated while only identifying seven false positives for every ten true positives when the cut-off score is set at seven. Changing the cut-off either increased the number of true positives but at the expense of increasing the number of false positives to an unacceptable level or lowered the ratio of false positives at the expense of reducing the number of true positives to an unacceptable level.

CATA32 Total score set at 20 could correctly predict 60% of people who terminated, but at the cost of including 2.3 false positives for every true positive. Therefore,



CATA32 Total scores would not in practice be a useful tool for predicting unilateral termination from therapy. The remaining three sub-scales: Liabilities, Exp Outcome, and Beliefs - have even less utility.

#### 4.3.6 Conclusions from testing the model

Thus once more the Total CATA score provides only weak support for the DAPIN model. However, the Demand sub-scale strongly supports the view that people who unilaterally terminate have greater demands associated with attending psychotherapy. Furthermore, this sub-scale as it stands has promise as a tool for predicting people at risk of unilateral termination at an early (negotiation) stage of the decision/action pathway.

#### Having developed a cost of attending therapy measure (CATA) based on the theory

By way of comparison a similar technique was used to test the predictive abilities of the various social class measures directly. The results are shown in Table 4.19 below which once more illustrates the best cut-offs that could be found.

**Table 4.19 Predictive abilities of various social class measures**

	Cut-off	% true positives	ratio false positives
Occupational class	Class 3 and below	100	2.7 to 1
Education	School only	70	2.4 to 1
Employment status	Unemployed	60	2.1 to 1
Deprivation index	Mean minus 1sd	90	3.4 to 1

As might be expected, these measures have some utility in predicting true positives but this was at the expense of a high level of false positives. These results could not be improved upon by constructing various composite indexes.

There is a statistically significant correlation between the CATA Demand



CATA32 Demand sub-scale would therefore appear to have the greatest utility as a predictive measure of unilateral termination at the 'negotiation' stage of the pathway.

#### 4.3.6 Conclusions from testing the model

Theory building and construct validation techniques rely ultimately on the model's ability to predict relationships of interest. Developing a measure allows hypothetical constructs to be measured and their relationship to other important factors to be explored.

Having developed a cost of attending therapy measure (CATA) based on the theory used to generate the DAPIN model, it was hypothesised that CATA scores would relate predictably to other important variables, particularly unilateral termination from therapy.

In this regard the accumulated evidence supports the DAPIN model, even if less strongly than might have been hoped for.

There is a relationship between SES values and unilateral termination.

There is a predictive relationship between CATA scores and SES variables.

There is a predictive relationship between CATA scores and unilateral termination.

CATA's predictive ability of unilateral termination is as good as SES variables.

If we confine ourselves to the Demand sub-scale of CATA then we find a very strong relationship between Demand and SES measures and Demand and unilateral termination. There is a statistically significant correlation between the CATA Demand



sub-scale and the deprivation measure and a statistically significant difference between those who unilaterally terminate and those who continue in therapy on Demand sub-scale scores. Finally, the Demand sub-scale has good predictive ability for those at risk of unilateral termination at the early (negotiation) stage of therapy. It can predict 80% of those who will unilaterally terminate in the first four therapy sessions, with a ratio of false to true positives of 0.7 to 1.

These results encourage more extensive investigation of the DAPIN model. The current study was limited by the patient sample that was confined to those people who had already made it to the negotiation or later stage of the pathway. There is good reason to believe that different components of the model may affect other stages of the decision/action pathway. For example, the socio-cognitive HAPA model puts greater emphasis on beliefs at an early cognitive stage whereas practical barriers affect the later action phase. Therefore, these results can be seen as providing provisional support for the DAPIN model.



## CHAPTER 5 - DISCUSSION

The work described in this study is still very much 'work in progress'. It makes no claims for completion or to provide the definitive answer to the relationship between socio-economic status (SES) and unilateral termination from psychotherapy by a large proportion of patients.

The study started out from the observation that people of lower SES are more likely to drop out of therapy than those who are better off. Despite this being a consistent finding over the years, the psychotherapy literature offered no coherent theoretical explanation for this.

The work undertaken in this study sought to build a theoretical explanation, which would provide a basis for action to remedy this inequality and to produce a questionnaire that would highlight those at risk for unilateral termination.

At the outset three questions were posed as to the mechanisms that could explain the relationship between SES and unilateral termination from psychotherapy. In exploring these questions a new model of health-care utilisation was developed (DAPIN) which integrates concepts and theoretical insights from a diverse range of the literature including: Social Cognitive Models; Network Models; and Social Causation Models.

DAPIN seeks to explain the social difference in terms of the difference in 'power'.

People at lower SES have greater demands placed upon them with fewer resources to deal with them. Attending psychotherapy is just one more demand on over-stretched resources.



As part of the process of developing DAPIN, a self-report measure of the cost attached to therapy attendance (CATA 32) was developed. A group of new patients who completed CATA 32 at the outset of therapy were followed for their first five therapy sessions. The relationship between CATA 32 scores and unilateral termination was examined. This process provided only weak support for the DAPIN model. However, there were considerable methodological problems in both the development of CATA 32 and in testing the model.

The remainder of this chapter consists of a review of the DAPIN model and of the process of theory and construct development undertaken here. In addition there are some suggestions for further research and finally some concluding remarks that reflect issues raised in the process of undertaking this project.

## 5.1 Review of the DAPIN model

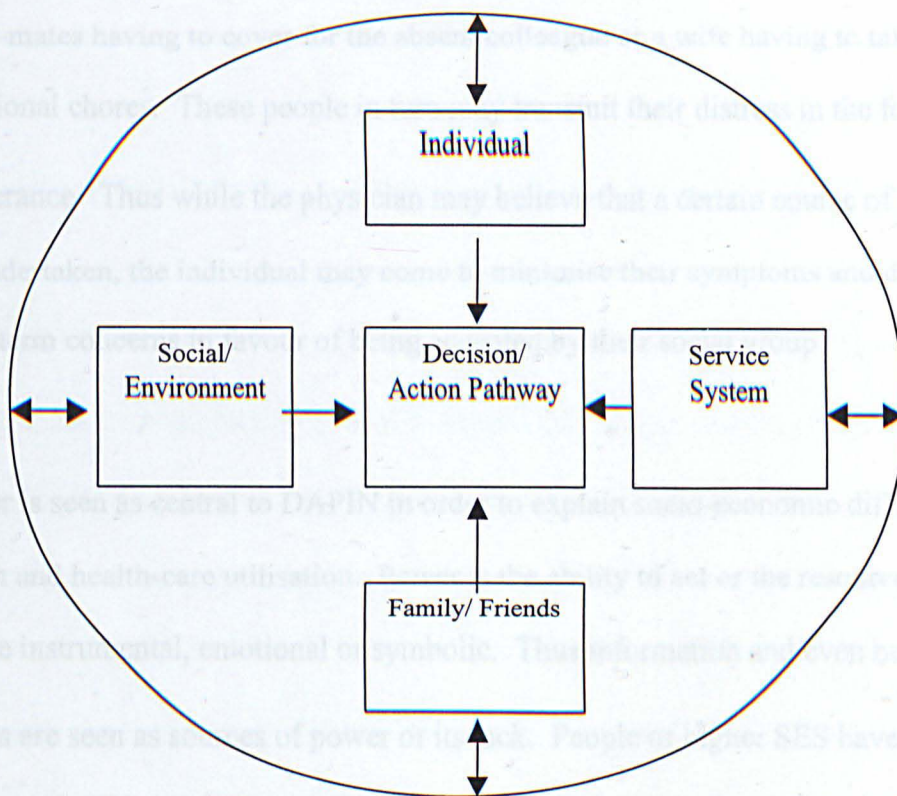
### 5.1.1 Introduction

The DAPIN model provides a comprehensive theory of health-care utilisation. It integrates established models from a wide range of literature to construct an explanatory model that covers the health-care pathway from the identification of a need right through to the use of specialist services to discharge.

At the core of DAPIN is a constantly emergent 'decision/action' pathway whose trajectory is determined by the effects of the dynamic interactive network. Within this network the individual is in reciprocal interaction with their environment with changes



in one affecting the other and vice versa. Influence flows backwards and forwards across the network.



**Figure 5.1 Basic components of the DAPIN model.**

Thus if an individual spontaneously becomes ill or becomes ill because of stressors from other parts of the network, their recognition of this illness, their decisions about what should be done about it and what is the likely outcome will all be shaped by influence from other parts of the network. For example, Family/ Friends will transmit values and beliefs regarding recognition and what should be done. An intolerant workplace or fear of loss of money may influence the individual to 'soldier on'. Consulting one's physician in order to legitimise the illness by way of a 'sick-note' may bring with it treatment plans not previously envisaged or welcomed.



Decisions and actions are seen as constantly emergent and inseparable as a decision/action pathway under the influence of the dynamic interactive network. Having accepted the sick role, there will be impacts in other parts of the system with perhaps work-mates having to cover for the absent colleague or a wife having to take on additional chores. These people in turn may transmit their distress in the form of intolerance. Thus while the physician may believe that a certain course of action should be undertaken, the individual may come to minimise their symptoms and down play any long-term concerns in favour of being accepted by their social group.

Power is seen as central to DAPIN in order to explain socio-economic difference in health and health-care utilisation. Power is the ability to act or the resources to act and can be instrumental, emotional or symbolic. Thus information and even beliefs and values are seen as sources of power or its lack. People of higher SES have more power than people of lower SES and so have more ability to act in the world. Although demands and resources are in many ways inseparable it is easy to envisage that those people at the very bottom of the pile have greater demands placed upon them and fewer resources with which to deal with them.

DAPIN sees the health-care pathway as made up of various stages. At each stage a person may choose or be deflected from this pathway. However, what influences the person at the various stages may be different. Thus at the earliest stage of recognition it might be information or beliefs and values, while at a later stage of compliance by attending a hospital appointment it might be difficulties getting off work or getting someone to look after the children. Either way it is the unequal distribution of power that means that people of lower SES are likely to choose to terminate the pathway.



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In terms of explaining unilateral termination from therapy and its relation to SES we can see that therapy itself is another demand and in the case of people of lower SES just one more demand on already stretched resources. Thus it should not be seen as surprising that they choose to stop attending.

Essential to DAPIN is the notion of the individual as a rational decision-maker.

However, it recognises that people live complex lives and must engage in complex strategies in order to survive. It argues that one cannot abstract a health-care pathway that follows some profession's ideal route and then accuse people of behaving irrationally if they don't follow it. People make decisions not to maximise some imagined utility within the professional's world-view, but in order to survive as best they can all things considered. Thus behaviours, which may seem perverse from the therapist's or physician's point of view may be the result of rational decision making from the individual's point of view.

### **5.1.2 Critique of DAPIN**

DAPIN arose because existing models of health-care utilisation could not pass the test of the three questions posed to guide the research on unilateral termination from psychotherapy. The claim here is that DAPIN passes the test by being able to explain the mechanisms at work in linking people's SES to their health-care decisions. It is thus an advance on previous models.

The psychotherapy literature on attrition from therapy is replete with a wide range of often-contradictory findings, yet offers no explanatory framework to account for this. It was a lack of a theory in this literature that provided the impetus for the current study.



DAPIN on the other hand provides an explanatory model that not only provides the mechanisms for the observed SES effect but that can also encompass the contradictory findings in the literature. For example, depending on which stage of the DAPIN pathway researchers have included in their study of attrition they might be expected to obtain different 'reasons' for termination. Furthermore, network variables, such as the type and duration of therapy on offer or the geographical layout and infrastructure of the communities in question, might be expected to influence which particular individuals choose to stop attending and for what reasons. Thus, DAPIN offers a framework in which a previously disconnected array of variables can be studied.

In contrast to the psychotherapy attrition literature, the Socio-Cognitive Models of health-care utilisation offer a much stiffer challenge. They have an elegance matched by an enormous research base covering virtually every conceivable aspect of health-care from attending for cervical smears, through condom use to healthy eating.

Interestingly however, in neither the psychotherapy literature nor the Socio-Cognitive models literature were any articles relating SCMs to psychotherapy attrition found. In fact, SCMs seem largely to have been studied in relation to either relatively discrete episodes such as attendance for screening checks or self-care behaviour such as exercise or smoking cessation. Even here the amount of variance accounted for by SCMs is typically low Sutton (1998). Potentially DAPIN offers a much more powerful explanatory model. It does this by extending the decision /action pathway beyond the simple 'intentions-action' dichotomy implied by SCMs and takes account of more protracted strategies. It accepts that the formation of intention may be more important at some stages and actions at others. However, it sees them as inextricably linked as



they bundle down the health-care pathway. Even the decision to terminate therapy may require the formation of intention.

DAPIN also offers an extension when it comes to conceiving 'barriers and resources'. Thus rather than just choosing those which appear to be most important, the researcher should be guided by the domains and sub domains of DAPIN in their choices for potential candidate. Most importantly, DAPIN directs us specifically to look at the features of the health delivery system, unlike SCMs that while focusing upon 'social cognitions' take as given the health delivery system and other social factors. It follows that if we hold one or more variables stationary then other variables will be forced to rotate around them. Individual cognitions may appear to be most important but only if we fail to look elsewhere. Thus one of the dubious virtues of SCMs would appear to be that they bring the phenomenon entirely into the realm of the researchers. Complex interactions are observed through their reflections in isolated individuals. DAPIN offers a much richer if challenging way of studying health-care processes.

Network models, particularly the SOS model described by Pescosoldo, have clearly influenced the development of DAPIN. The research base on network and related models is more diverse and less developed than that on SCMs. Nevertheless, they are powerfully descriptive and have been successful in predicting broad health-care strategies from a limited number of social variables. However, these models have not been developed to the point of DAPIN and would not immediately lend themselves to the study of such specific health-care decisions as deciding to unilaterally terminate therapy. DAPIN has retained the essence of network models where network interactions, pathways and decision making are all evident but welded them into a



single coherent model that could be used to predict health behaviours over a wide range of health behaviours and settings.

### 5.1.3 Clinical and research implications of DAPIN

Social causation models provided the concept of power to DAPIN, which brings alive and pulls the elements of the models together. However, within the diverse and piecemeal literature there are no worked-through models of health-care utilisation.

Descriptively the literature is very rich and compelling but no general models such as SCMs or network models were found.

### widening health inequalities within society: a clinical and research perspective

Although in many ways DAPIN can be seen as a natural progression of the three literatures reviewed it does make some leaps independent of them. In particular the concept of reciprocal influence borrowed from Bandura places the decision /action pathway conceptually outside of the individual. The direction and duration of a pathway emerges as a result of reciprocal influence between the individual and their environment (interactive network). Actions taken will have impacts upon the network of which individuals themselves are part. Thus attending therapy and being exposed to a therapist may lead to lowered self-esteem and subsequent withdrawal from therapy. This device allows us to side step the perennial problem of psychology and sociology as represented by SCMs and network models. The individual is neither the all-powerful superman who can act without constraint but neither are they the puppet of social forces. Thus we should neither seek answers solely in the individual nor solely in society but recognise that together they form a single system.

research needs to be more open and transparent with regard to the procedures used upon. At the very least this is wrapping around the life of the other person and the simple completion of a task. This is a critical ethical report of the study sample size and the results of the study.



### 5.1.3 Clinical and research implications of DAPIN

The implications of DAPIN go far beyond the original aims of this study to develop a theory of attrition from psychotherapy. DAPIN points to the fact that the individual and the social are inextricably linked. Although it was developed to explain differences in health-care utilisation it is consistent with theories that attempt to explain the ever-widening health inequalities within society. It raises serious questions about the theoretical basis of modern psychotherapy as well as about the way it is delivered.

Considerable emphasis is currently placed upon the need for evidence-based practice. This evidence is accumulated through the clinical and research journals reporting the outcome of therapy trials. While the internal validity of these trials are explicitly reported, the effects of client selection groups and attrition on external validity are rarely mentioned.

If we take a broad view of the therapeutic process we see that 60 to 80% of people who have an identified need for therapy unilaterally terminate before any significant benefit can accrue.

If we are to understand the relevance of clinical research to clinical practice then research needs to be more open and transparent with regard to the population reported upon. At the very least each study should report upon the SES of the original sample and the sample completing therapy. Furthermore, it should report upon the original sample size and terminators at each pathway stage, whether through non-inclusion or



unilateral termination. Under these circumstances social inclusion will become an outcome measure in itself, i.e. ensure that research populations reflect the population as a whole. This will ensure that interventions are equally effective for all social groups, or, where they are not, alternative interventions suggested and investigated.

Although some may protest that this is an unrealistic goal, reporting as suggested will encourage researchers to be more proactive in ensuring the external validity of their studies and devise ways of making their intervention more relevant to a wider population. This, on the evidence, would not be a bad thing for the practice of psychotherapy.

DAPIN demonstrates not only that unilateral termination from therapy is socially structured but also that the mechanism of this structuring can be observed and understood. With this information clinicians could determine to intervene in order to redress the balance. They should look to what extent their own self-interest is being served when they attribute patients' decisions to terminate therapy as attrition or dropping out down to individual factors such as 'lack of motivation or lack of psychological mindedness', or even down to concrete thinking or intractable negative health beliefs. Insisting that the problem is within the individual is nothing more than an exercise in social power. In general it is the attribution of the observer over the actor. In particular it is an attribution to defend the social position of the therapist and his or her preferred theories.

The social needs to be brought back fully into play alongside the individual. In terms of theories and therapies this means that we will no longer turn the understandable distress experienced by an isolated unmarried mother in a run down tower-block into depression



and we will no longer offer her anti-depressants and cognitive therapy but social actions. In terms of health-care pathways we might determine to 'hold' the individual stationary and rotate the social and in particular the health delivery system around them and see what happens. So if we accept that some people can only get off work with great difficulty or at prohibitive cost then we might have to consider working 'unsocial' hours or siting our clinics nearer to where people actually are during the day. As people often work in a different health district from that in which they live this will mean changes in referral practice and perhaps methods of funding services.

Although those engaged in counselling and psychotherapy in the British National Health Service may feel they can safely ignore such arguments, they will not be able to ignore the wider government agenda indefinitely. The inequality of access to health care has not gone unnoticed and considerable government attention in recent years has focused upon health inequalities and socio-economic status. The Independent Inquiry into Inequalities in Health (Acheson, 1998) brings together the research evidence setting out the main influences on health inequalities such as poverty, housing and education. The government's response, *Reducing Health Inequalities: An Action Report* (Department of Health, 1999) and the white paper, *Saving Lives: Our Healthier Nation* (Department of Health, 1999), sets out the government's commitment to "improving the health of the worst off in society". The NHS Plan (Department of Health, 2000) gives an unprecedented focus on the inequalities agenda within the NHS and *Closing The Gap: setting local targets to reduce health inequalities* (NHS Health Development Agency, 2001) emphasises among other things inequality of access as a target for action.



These pressures are unlikely to change with a change in government. The present government is hardly known for its left wing thinking. Governments in modern times tend to be technocratic. The values are set and they are left to mind the store. Books have to be balanced to maintain the status quo. Spiralling health care costs threaten to swamp this situation. Therefore, despite stiff resistance from vested interests within the illness industry the government is compelled to tackle mental health and distress at the social level. In the squeeze between this 'new-think' and the big vested interest of the drug companies, psychotherapy in all its forms may soon be seen as an expensive luxury.

## **5.2 Review of the process of theory and construct development**

### **5.2.1 Introduction**

Despite starting out with the simple observation of a correlation between SES and attrition from therapy, the development of an explanatory theory has been anything but simple. The process of theory building and construct validation described here illustrates the complexity of such a process and the challenges posed to the existing knowledge base and assumptions of the researcher.

### **5.2.2 The Strategy Employed**

This research, like most psychological research, started with certain observations that needed to be explained. In this case it was the relationship between socio-economic status (SES) and attrition from psychotherapy.



Theory building is an iterative process. A hypothesis forms in the researcher's mind that leads him/her to build a plausible model. This leads to a search of existing related literature for explanatory models that have already been developed. These may be incorporated into the researcher's model or cause him/her to change it in important ways. The researcher 'tests' this model in his/her head – "will it really explain what I want it to?" Perceived inadequacies in the model lead to more searching, which generates new ideas and new ways of looking at the problem. The cycle continues until a point is reached where, given the constraints of real life, the researcher must set about testing the theory.

In psychology the process of testing the theory often involves, as it did here, the construction of a scale to measure the proposed underlying construct. The process of scale construction itself suggests inadequacies or new ideas that may extend or modify the theory.

Thus a rotational sequential strategy was employed where a sequence of stages thought necessary to the process of construct validation (John and Benet-Martinez 2000) guides the researcher. However, within the sequence steps can be missed out and rotation back to earlier stages can occur at any point in the light of accumulated information. Thus a body of evidence is built that will strengthen our trust in the validity of the construct and the theory itself. Ultimately no single quantitative measure or index is seen as sufficient to accept or reject a particular claim but rather as only to add weight to a particular argument. Results are not seen as absolute but as qualitative summaries of the evidence.



any other factor (Structural Validity). Subjecting the model to confirmatory factor analysis gives the researcher an indication of how successful they have been in building structural validity. However, the ultimate test is for the questionnaire to predict variables of interest to the theory (predictive validity). Where factor structure is weak and/or the questionnaire fails to predict variables of importance then there are three possible reasons. It is either:

the theory is misconceived

the questionnaire poorly represents the theory

or both

It is up to the researcher to review the evidence and decide where in the sequence to rotate back to.

Thus the process employed here is a flexible process to building a body of evidence. The important thing to note is that the investigations are not finished. The outcome of this stage of development suggests modifications to the theory (i.e. that different pathway stages are affected by different factors) and further research strategies (i.e. testing stages separately with separate scales).

### **5.2.3 The importance of logic**

Constructing a hypothesis to explain observed events must inevitably reflect the researcher's biases that will arise both from a limited knowledge base and from their own value systems. Therefore, we might expect psychologists to construct 'psychological' explanations for observed differences in behaviour between people.



However, limiting their hypothesis to variations 'within' individuals is a value judgement that reflects the culture in which we live and that also permeates the dominant models of therapy.

At the outset of the research three questions were posed to help conceptualise the task and to guide the process of exploring the casual relationship between SES and unilateral termination from therapy.

The three questions were:

1. What is the mechanism within the individual on which SES operates that makes them stop attending psychotherapy?

2. What is it in the social environment that makes people of low SES more likely to stop attending?

3. What are the mechanisms in the social environment that produce or maintain something in the person of low SES that makes them more likely to stop attending?

This stage of formulating the questions to be answered in a logical technical way seems to have the effect of distancing the researcher from the immediate body of information that gave rise to the question and to provoke a wider search for answers. This process raised questions that took the investigation beyond the psychotherapy literature. Here was found an extensive literature describing models of 'health care utilisation' variously researched and formulated with long histories. Despite the richness of their theories



they received no mention in the psychotherapy literature on attrition. This is perhaps not surprising for the more social models of social causation and network models, but the exclusion of social cognitive models, which integrate the social into simple cognitive decision making models, does raise questions about the building techniques employed in building this particular body of knowledge.

#### **5.2.4 The term attrition made problematic**

The original review of the psychotherapy literature on attrition revealed not only that there was no 'theory of attrition' but also there was not even a definition of attrition. Dropouts litter the articles but definitions are weak and contradictory. The essence of the phenomenon is clear: people either do not attend or stop attending therapy, without the therapist agreeing that this is the right or good thing to do. However, there is rarely any explicit comment upon which stage of the healthcare pathway is under investigation or that other stages are excluded. The net result is that phenomena, which may be very different, are referred to interchangeably. Thus in building a theory the first observation was that a definition was required that would take account of both the fact that people may unilaterally terminate at different stages and also that there may be different reasons associated with different stages. (Thus the notion of unilateral termination of a healthcare pathway was formulated in the researcher's mind).

The term 'attrition' itself became problematic when viewed at a psychological distance. Although no doubt correctly used in describing the gradual reduction in the number of people attending therapy over time, it conjures up other images associated with the meaning of the word. It also means a 'wasting away' as in a war of attrition where the weaker party finally 'gives up' in the face of a greater force. Thus terms such as



'giving-up' and 'dropping-out' are used along with attrition without thought to the underlying assumption that go along with these – it is the individual through some weakness or defect who finally 'gives-up' despite the unchallenged assumption that therapy must be good for them and what they need at this time.

Thus the first stage of theory building turned out to be defining the phenomenon to be studied in a complete and as far as possible, value free way, i.e.; unilateral termination of a health-care pathway at any stage by a person referred for psychotherapy.

### **5.2.5 Decision-making made problematic**

The question as to what it is in the individual that is affected by SES loomed large at this stage. At first the question seemed to be polarised simply – is it that people of lower SES are lacking in essential skills or motivation, or, do they make rational judgements like most of us like to think we do when deciding what to do or not to do. However, as investigations proceeded it became clear that logically both could be the case, i.e.; that people of lower SES may lack certain skills or knowledge in relation to therapy but this then may become part of a rational decision making process. Thus people of lower SES can be active decision-makers deciding to terminate therapy and not just 'therapy drop-outs', but their own resources may be part of that equation.

Decision making models have been at the centre of psychological study for many years so it seemed logical to include this as the mechanism at the centre of unilateral termination from therapy. However, as the literature was reviewed and the model tested conceptually to see if it would fit with what was known about unilateral termination doubts began to emerge.



These doubts arise from the simplistic approach to decision making inherent in most of the SCM literature characterised by a 'Dr knows best' attitude with a disconnection of the individual from their social environment and real barriers and resources relegated to a lowly second place to a person's beliefs.

Within all the literature reviewed the process of decision making is taken for granted. Put simply, given appropriate information (health threat) and expectancies that they can achieve a 'desired' outcome by taking certain actions, then the individual will take that action unless 'barriers' stop them from doing so.

This view is laden with value judgements:

- That there is only one desired outcome
- That the desired outcome can be easily described
- That there is only one course of action that is rational.

Even in relatively simple areas like health promotion the assumption that decision-making is straightforward is problematic.

Take for example cigarette smoking and quitting smoking. In some general sense we may all agree that it is better for people not to smoke but can we be certain this is absolutely true for everyone under all circumstances? If we could weigh up all the costs and benefits involved we may have to conclude that the 'best' strategy would be to smoke 20 cigarettes a day until aged 24 and then give up until age 65 and resume at 10 a day.



We may want to point to 'losers' in such hedonistic strategies for proof that they are wrong. And indeed the person who has engaged in extensive unprotected sex may regret their behaviour once they have been diagnosed HIV, but is this evidence they were wrong? What of the person who has worked and saved hard all their life for their retirement who finds themselves on their deathbed weeks before they finish work? Is this evidence that we should not save for retirement?

Clearly the costs and benefits attached to certain behaviours are problematic and there may be many benefits attached to undesirable behaviours. In addition, there may in fact be many hidden costs attached to desirable behaviours.

Thus we should not just assume that there is just the one rational behaviour with barriers to action. In all situations the individual is faced with a range of choices, all having (potential) costs and benefits attached to them. What may be a benefit in one strategy may be a barrier in another: quitting smoking may release much needed money for children's clothes. However, having to buy children's clothes could be seen as a barrier to enjoying smoking.

Put in the context of therapy one can see that the costs and benefits of certain outcomes are not straightforward. A person may identify himself or herself as having a health need, in that they are depressed and unable to enjoy life. Wishing it were otherwise, they may indeed consider therapy as an answer. However, when being confronted with the prospect of being 'not depressed' the desirability of this state may not be so straightforward. For example, it may mean that the person has to face going back to a job they find soul destroying and more painful than being depressed.



Community psychology and social causation models reviewed would argue that too much emphasis is placed upon the individual illness model in mental health and insufficient emphasis is placed upon the condition of people's lives. Lay people themselves have a range of aetiological explanations for mental distress, which whilst overlapping with the professional theories lay emphasis on life events and social determinism such as unemployment and environmental degradation (Rogers and Pilgrim, 1997).

This example also raises issue of the social function of medicine (and allied professionals) and the possibilities of misunderstanding of what is occurring. In addition to their function of curing the sick, health professionals have an important social function. People engage in complex coping behaviours and their attendance at a health professional's clinic neither implies that they agree with the professional's view nor the proposed course of action. Many consultations with General Practitioners in particular may simply be to gain some social end such as legitimising a sick role or acquiring a sick note.

Besides the simplistic value-laden view of decision-making, most models seem to assume that the equation relates solely to the cost/benefit of some new state compared to the cost/benefits of the present state. For example, the cost/benefit smoking vs. cost/benefit not smoking or the cost/benefit going for screening vs. cost/benefit not going for screening. However, this tends to play down or ignore the costs attached to change involved in more protracted strategies. One may go to therapy in order to be relieved of depression and one may envisage life being much better when not depressed. However, the real or feared 'cost of change' may be so high as to deter the individual.



For example, attending therapy may entail ridicule from one's work-mates or the high cost of transport in terms of money and time.

Cost of change will result from an equation involving the sum total of demands upon a person and their available resources to manage these demands and attend therapy. If demands are too high, then attending therapy may be just one more thing – the straw that breaks the camel's back of coping. This will be especially true where a person's resources are relatively low. Thus a single mother without a supportive family will have considerable demands upon her time and energy in addition to attending therapy, but few resources to help her cope.

Optimality theory (Mc Cleery, 1978) has long been used in behavioural ecology to look at how animals make decisions and act under conditions of variable costs. Very elaborate mathematical models have been developed and tested showing that animals include the cost attached to various strategies in the utility equations. In the simplest form, Logan (1965) demonstrated that rats would choose rationally between easily accessible small amounts of food and larger amounts which could be obtained only with difficulty. However, most studies are unable to demonstrate that animals maximise utility but instead 'satisfice' as claimed by Simon (1956); that is they perform to stay alive rather than maximise something.

Despite its impressive research base, optimality theory does not appear to have influenced studies on human decision-making. Two relatively recent reference books on human decision making (Plous, (1993) and Arkes and Hammond (1992)) make no mention of it at all.



## 5.2.6 The disconnection of the individual from their environment

Although SCMs have an intellectual appeal, they seem to have developed a 'backward logic' pervasive in the therapy literature where beliefs are assumed to have primacy over the environment. Whilst on the face of it they offer us the mechanisms in the individual that is affected by SES (decision making) and the 'something' in the social environment that affects the health-care decision (barriers and resources), in practice they offer something quite different. Despite being called 'socio-cognitive' models, they place far greater emphasis upon the cognitive than the social. Thus Conner and Norman (1996) are able to say: "*these determinants are assumed to be important causes of behaviour which mediate the effects of many other determinants (e.g., social class)*". What may be very real social barrier and resource issues are relegated to second place behind a person's beliefs. Thus the 'something' in the social environment which affects health-care decisions (barriers and resources) has been relegated and is of little consequence. Beliefs are disconnected from the social as if they materialise out of nowhere. Real life experiences are discounted. No suggestions are offered as to how beliefs are related to SES and therefore the mechanisms offered to explain the connection between the social and the individual.

This disconnection of beliefs from the social then allows for beliefs to become the sole legitimate target of investigation and change. Once more Conner and Norman (1996) are able to say "*these social cognitive factors are assumed to be more open to change than other factors*". Thus whilst SCMs offer us a way forward in connecting the social to the individual decision maker they are in themselves found to be inadequate in addressing the three guiding questions.



These perceived inadequacies in simple decision making models and SCMs gave rise to a need for a process that, while retaining rational decision making at its core, could also encapsulate the complexity of people's lives and also connect the decision making process to the social environment.

### **5.2.7 The dynamic interactive network and the need for the decision/action pathway**

Ideas were already shaping from the literature reviewed about what it is in society that affects people of lower SES in relation to attending therapy and the mechanisms by which this is transmitted to the individual. Social causation models point to "power" as being an essential ingredient of the social environment. People have differential access to resources and have more or fewer demands placed upon them. People of lower SES tend to have relatively more demands placed upon them for their available resource. Attending therapy is just another demand upon scarce resources. Power, whether it be instrumental, emotional or symbolic is transmitted through people's network interactions. Relationships, workplaces and where we live are all sources of demands and resources. However, it is clear that the individual is also a source of power.

Thus the dynamic interactive network (DIN) was conceived where decisions are a result of demands and resources in the social environment interacting with demands and resources within the individual. The DIN was an important conceptual step. Decisions once made and acted upon have consequences elsewhere in the network. The effects of this may then have an impact on the original decision. Thus a temporal element was added. Deciding to go to therapy may have consequences on, for example, a close relationship that may then lead us to stop going.



At this point we seemed to be left with a pathway consisting of a series of discreet decisions and actions. This fits with a model such as HAPA, where behaviour is seen as having a motivational stage followed by an action phase. However, this did not fit with the building image of an individual in dynamic interaction with their environment; action creating new information leading to confirmation or changing of an earlier decision, in turn creating more action and more information and so on.

There was a stubborn resistance on the part of the researcher to what now seems an inevitable conclusion; decisions and actions in the real world are inseparable. They form a constantly emergent decision/action pathway whose direction is being shaped by the dynamic interactions taking place within the dynamic interaction network. Thus the decision/action pathway interactive network (DAPIN) was conceived. In completion of the model the stages of a pathway to psychotherapy were described that better fitted with the idea of an individual employing complex coping strategies in their attempt to manage their needs as best they can.

### **5.2.8 Theory generated questionnaire items**

Having developed the DAPIN model to explain unilateral termination from therapy, the next stage was to test the theory. The method chosen was to develop a self-report questionnaire that would reflect demands and resources and expectations for outcome. The expectations were that people of lower SES would tend to have higher network costs attached to therapy attendance than others and so be more likely to terminate therapy.



It is not proposed to repeat the whole process involved in questionnaire construction once more, but only to highlight some of the more important issues and lessons learned.

At the outset it was decided to use the theory at the centre of the process of generating questionnaire items. This proved to be a very important decision with a number of consequences.

1. The process of generating items by searching the literature for reasons given for termination and then ordering these into categories or domains led to an important elaboration of the original model, with four domains being described in the interactive network rather than just two. These, together with sub-domains, ensured that the questionnaire would reflect more accurately the theory.
2. In order to ensure that questionnaire items reflected accurately only one of the three sub-construct components of the decision-making model and only one domain of the interactive network, definitions of the sub-constructs and the domains had to be written. It is at this point where serious difficulties arose that were very challenging to the researcher.

At this stage it was decided to change the construct 'resource' into 'liabilities'. This was to reflect the literature that shows repeatedly that it is not just the simple lack of resource that matters, but often a resource that impedes therapy attendance. Thus, not having a husband may be less important than having a husband who is antagonistic to therapy. Writing these definitions in turn influenced the items selected from the raw data to form the basis of questionnaire items.



### 5.2.9 Attribution – the actor and the observer

Having written questionnaire items to fit the 12 construct/domain cells, they were given to expert raters to test convergent and discriminant validity. Raters were instructed in the theory and given the construct and domains definitions and asked to allocate the items accordingly. A significant number of items were not allocated as expected. In particular, items that were written for the ‘individual x demand or liability’ cells and the ‘service system x demand or liability’ cells were particularly problematic.

Individual items were re-written as were the definitions of demands and liabilities, but the problem did not go away despite repeating the process several times over.

It was humbling for the researcher to discover the extent to which assumptions and attributions held by himself and colleagues that are key to their understanding of their sphere of actions as therapist may be erroneous and part of the subject under investigation. In particular:

1. that costs attached to certain actions can be calculated easily by reference to barriers (demands) and resources (liabilities).
2. that causation of certain outcomes can be easily and accurately attributed to the individual or the environment.

Taking the problem outside of the therapy arena helps us to see where the problem lies.



*I decide that I need to get fit so I sign up with a local gymnasium. On my first visit I am shown around the equipment by a very well built young man. Working on the weights there are a number of equally well built men and women. "If you want to strengthen up then I suggest you work on this machine and carry out the routine described," he says. Starting off with what looks like very small weights I struggle to complete this and eventually give up in agony as I pull a muscle.*

*The other people there look on and discuss my performance. They agree that the problem is that I am too weak and puny (personal/liability) and that is why I am in distress. Next day at work, people seeing me in distress, ask me what happened. When I tell them they agree that it was ridiculous for the gymnasium to set me to work on such a machine and routine (service/demand).*

Thus the notions of 'demand' and 'resources' are themselves socially constructed and presumably reflect the norms of the social group to which one belongs. To the group of weight lifters my inability to cope with what, for them, were small weights could be down only to my lack of resources (liability). To my group of friends the failure was clearly down to an excessive demand.

Coming back to therapy, to the person of higher SES who may have few problems getting off work to attend appointments and has their own transport, neither the timing of therapy clinics nor their location may impose much by way of demand. However, to a person of low SES the timing of appointments and the location of the therapy clinic may represent insurmountable demands.



Furthermore, the example above also shows that the attribution for a particular outcome will depend upon the attributor's relationship to the action. The weight lifters as observers tend to attribute the outcome to my personal shortcomings. On the other hand I, and those who can identify with my situation as 'actor', attribute the outcome to external factors. Thus to the researcher steeped in the perspective of the lower SES patient it seemed obvious that certain items related to demands of the service that would weigh more heavily on such people. However, for the therapists not so conditioned and looking at it from their point of view, the same items would relate to inadequacies in the patient.

At this stage the researcher was beginning to believe that the theory was fatally flawed. It seemed impossible to define anything as either a demand or a liability or to know whether a difficulty on the part of a patient should be attributed to the patient or external factors. For some time it seemed as if there would be no way round this particular problem. It was with difficulty that the researcher had to accept the relativistic nature of the world and try to by-pass this particular conundrum. Going back to the beginning the core of the theory was restated:

people of low SES are more likely to drop out of therapy  
they drop out because of the higher cost they experience  
people's experiences are subjective and reflect their social position

Thus, notwithstanding all that has been said above, the important thing is whether patients' responses to items are socially conditioned. If patients of lower SES rate a particular item higher than people of higher SES, then this has meaning, even if it is problematic for us as therapists.



E.g. My therapist does not listen to me

My therapist does not understand my problems

Therapists may attribute this to 'lack of psychological mindedness' (individual/liability) and the patient to 'arrogant therapist' (service system/liability) but ultimately it does not matter. It is problematic if we are concerned that people of lower SES stop coming to therapy. Insisting that the therapist's explanation is superior to the patient's merely reinforces the notion that the therapist has more social power than the lower SES patient and is in accordance with the model under investigation. Thus questionnaire items were retained provided they showed good discriminant and convergent validity in either the individual/liability or service/demand position, irrespective of the researcher's original intention.

#### **5.2.10 Problems with collecting and analysing data**

There is a temptation often observed in therapy trials and research to use a convenient sample rather than perhaps the one that would be ideal. Given the considerable time spent developing the DAPIN model and the questionnaire CATA 72, constraints were placed upon data collection. Ideally, people would have completed CATA 72 at the point of referral or soon after and then their progress followed through. Such a procedure would have had the merit of including everyone who would terminate the pathway at various stages so that if some items were more responsive at some particular stage then this would be captured. As it was, the chosen sample was convenient but problematic and has probably affected the validity of the final questionnaire CATA 32.



73 patients already in therapy were asked to complete the questionnaire along with 109 patients attending their first appointment. Unfortunately response rates for new patients was low and fell to very low over the three months of data collection. This means that the development of CATA 32 was based on data from an idiosyncratic population consisting of 57 patients who had already survived the early stages of possible termination to be regular therapy attenders and a group of 50 patients who had got as far as the early negotiation stage of therapy by attending their first appointment. This failure to use patients from all stages of the pathway may account for some of the problems encountered later. If indeed some stages of the pathway are affected more by some factors than others, then people making it to the later stages will be less responsive to those items reflecting those factors that may influence people to terminate at an earlier stage.

The first problem encountered on analysis was a general poor response variability for all items when they were inspected to discard weak items. Despite there being a 5-point scale, the overwhelming response to all but one of the items was '0'. Not only will this lack of variability affect all later analyses that depend upon covariances, but it also raises the question as to whether important items were discarded at this stage simply because the sample was insufficiently large and unrepresentative of the population of people referred for therapy.

Because of the decision to have a theory-driven approach, exploratory factor analysis was not considered at this stage of scale construction. Rather, statistical techniques that sought to maximise discriminant and convergent validity of items retained on the previously described sub-scales were used. In addition however, items were retained in order to ensure good coverage of the construct.



Convergent validity was maximised by removing items to improve co-efficient alpha. However, although it is generally seen that the higher alpha is the better, that view was not taken here. While a high alpha is evidence of convergence, taken to its extreme all items become simply repetitions of one another. Thus high alpha is achieved at the expense of failing adequately to cover the construct. Therefore the procedure employed here was to retain that set of items which while giving good coverage produced the highest possible alpha for such coverage. Concurrent with this process, items were examined for discriminant validity by ensuring that their correlation with their own subscale total was greater than their correlation with other subscale totals. This process has the merit of face validity and ensured that the final scale reflects the underlying theory it is constructed to represent. Unfortunately, the process was somewhat undermined by low loadings and correlations throughout and the obtained 'factor structure' is some way from the ideal simple structure.

Even more problems were to come when the retained items were entered into the construct/domain matrix. Certain domains were weakly represented and it was observed that all the items relating to outcome beliefs had been removed. This absence of belief items seemed to be an untenable position, given the dominance of beliefs within SCMs and DAPIN itself. In DAPIN, beliefs are not discarded altogether but assigned an equal role alongside other factors of the dynamic interactive network. However, their removal through the process described above would suggest that they are not important to unilateral termination or the DAPIN model itself. On reflection though it was decided that their de-selection could be due to the idiosyncratic sample employed. Within HAPA outcome beliefs are seen as bearing more on the early motivational stage, rather than the later action stage of healthcare utilisation. In this



study clearly all the people who completed CATA 72 were well into the action phase and we might assume that people who had terminated at an earlier stage would have shown greater responsiveness to outcome belief items. The resulting greater variability in item scoring would have made them more robust in the analysis.

#### Model Analysis

As a result of the above analysis it was decided to construct a sub-scale of outcome belief items. This new sub-scale and the resulting new scale CATA 32 were subjected to the same procedures described for CATA 24 with similar results. DAPIN is now represented by four sub-scales on CATA. Whether this will remain so after further analysis using a large appropriate sample, or whether they get taken back into the other sub-scales, remains to be seen. Either way this does not fundamentally alter the model. CATA needs to be structured in the best way possible to capture the underlying construct.

#### Both of these results

These problems encountered in the questionnaire analysis clearly demonstrate the problems that can arise from not ensuring the population is adequately sampled and if there is insufficient variability in responses to questionnaire items. On the positive side, however, this retention of belief items, because theory suggests it, and the subsequent modification of theory to accommodate this, demonstrates the creativity of employing a rational sequential strategy of theory and construct building. We arrived at this position because that is what the accumulated evidence suggests. If subsequent information suggests otherwise there will be no embarrassment in changing the theory.

#### **5.2.11 Limits to testing the Model**

The findings relating to CATA 32 were analysed using a sub-group of patients on whom CATA 32 was developed. Newly referred patients who completed CATA 32 on



their first appointment were followed to see who unilaterally terminated by their fifth appointment (i.e., negotiation stage) and how this related to SES and CATA scores.

Clearly using patients on whom the scale has been developed is a very weak test of the model. Additionally the small sample size made statistical analysis problematic.

However, despite these problems it was felt that analysis could provide some worthwhile insights into the model and strong trends in the data taken as supportive.

DAPIN predicted that people who unilaterally terminate would have:

Lower socio-economic status than continuers.

Higher CATA 32 scores than continuers.

Both of these predictions were supported by the evidence, although somewhat more weakly than might have been hoped for. Deprivation scores for people who terminated were higher than for those who continued and other measures of SES supported this.

Various analyses supported the relationship between SES and CATA 32 scores. All the subscales were shown to correlate with deprivation scores, which is interesting given that all the questionnaire items were derived from the literature on attrition and healthcare utilisation and not directly from deprivation literature.

The result of the analysis of the predictive ability of CATA 32 and its subscales lends some tentative support for the DAPIN model. However, the Total Scale, Liability, Exp Outcome and Beliefs failed to show strong predictive ability with either of the methods used. Only the Demand sub-scale was strongly related to subsequent unilateral



termination being able to identify 80% of those who will subsequently terminate at this stage with a relatively low number of false positives.

The fact that only early termination, where people have attended their first appointment but terminated by the fifth (negotiation stage), was under investigation leaves open the question as to the efficacy of the other subscales.

The Health Action Process Approach (HAPA), which heavily influenced DAPIN makes, a distinction between an early intentions phase and a later action phase in health-care utilisation. Outcome beliefs are seen to be more influential in this earlier stage whilst barriers (demands) and resources (liabilities) are seen as more influential at the later action phase. Unlike DAPIN, HAPA makes no distinction between attending the first appointment (compliance stage) and attending the next few appointments (negotiation stage). Therefore it is an open question as to whether the Liabilities would affect attendance at first appointment (compliance Stage).

Thus DAPIN has not been fully tested. However, the results so far suggest that it represents an interesting line of enquiry and merits further investigation.

### **5.2.12 Further Research**

The DAPIN model appears to provide a comprehensive model of health-care utilisation with potential explanatory power across the whole of the health care arena. However, before such claims can be made it needs to be fully tested within the area of psychotherapy, where it was developed.



The present study could only draw limited conclusions because of the small and idiosyncratic patient sample used. CATA 32 itself was potentially flawed because of this and should be treated with caution. CATA is open to further refinement and this should be associated with a more comprehensive testing of the DAPIN model.

A further research study employing CATA 72 should involve a large sample of patients with CATA 72 administered at the point of referral. This will ensure that a much greater proportion of people who unilaterally terminate will be captured and if indeed different stages are associated with different reasons for terminating then this may be reflected in the questionnaire responses. However it may be necessary to repeat the questionnaire at different pathway stages in order to get optimal insight because different factors may be more salient at different stages. For example, at the point of referral a person's beliefs regarding the possibility of change may loom large, but any thought about competing demands may begin to enter only once a person has formed an intention or committed themselves to attending. Further, actual attending will make demands even more salient. Beliefs may once more be tested by actual experience, but this should be more specific and affect fewer people at this stage.

Thus completing CATA at a point of referral may give large variance on Belief items, which may be predictive of unilateral termination at this stage, but low variance for Demand items which may not be predictive of unilateral termination at the later negotiation stage. However, the same Demand items given at the point of attendance may produce large variance and good prediction of unilateral termination at this stage.

Such an approach will ensure that the variance associated with questionnaire items will be greater, which will strengthen the statistical procedures underlying construct and



questionnaire development. The result of this should be a more robust factor structure reflecting the underlying theory. Furthermore, a more comprehensive testing of the DAPIN model will be possible for each of the pathway stages and allow a better description of the various factors involved in unilateral termination from therapy.

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## APPENDICES

### APPENDIX A

#### Introduction

A.	Developing a universe of items.	166
B.	Distribution of CATA 114 items.	184
C.	Instructions to raters.	202
D.	Item selection CATA 72.	220
E.	Statistical calculations- development of CATA 32.	225
F.	Literature Search.	259
G.	R&D and Ethical Committee Application.	261
H.	Patient Questionnaire Pack.	274

#### Table 2

#### Table 3

#### Table 4

#### Table 5

#### Table 6

#### Table 7

#### Table 8



## APPENDIX A – Developing a universe of items

### Introduction

This appendix contains the material used in the process of developing the universe of items to be considered for inclusion in the cost attached to attending therapy questionnaire (CATA). Tables 1 to 5 contain variables extracted from the various literatures relating to attrition. Tables 6 to 8 contain the process of classifying these variables in relation to the theoretical model being studied.

Table 1	From attrition research – what therapists say.
Table 2	From attrition research – what patients say.
Table 3	Social cognitive models.
Table 4	Network models.
Table 5	Social causation models.
Table 6	Classification of variables.
Table 7	Domains and sub-domains.
Table 8	Classification of items.



**TABLE 1.**

**FROM ATTRITION RESEARCH – WHAT THERAPISTS SAY**

<b>Items</b>
Young age
Institutional referral
Female
Low education
Unemployed
Low occupation
Low income
Ethnic minority
Patient unaffiliation
Low symptom level
Paranoid symptoms
Aggressive behaviour (sociopathic)
Legal troubles (sociopathic)
Hostility to authorities (sociopathic)
Alcohol abuse
High depression
Poorly motivated
Less adequate and inferior
Less psychologically minded
Admit psychological and interpersonal problems
Accept the use of psychological concepts
Denial
Decreased capacity to tolerate anxiety
Defensive
More evasive/ less willing to reveal self
Less objective with self
Censors emotions
Failure to accept dependent role
High need for approval
High self disclosure to male therapist
Small clinic size (small no of therapists)
Small clinic size (low calibre of therapists)
Delay (referral to allocate)
Spouse/partner has personality disturbance
Restricted or unmodifiable environment
Therapist rates patient attractive (higher class, white, female)
Therapist high on ethnocentricity
Therapist dislikes patient
Therapist not interested in patient's problems
Therapist low expectations for improvement
Therapist low experience
Interruption of therapeutic relationship
Low therapist – patient similarity

Discrepant expectations about treatment
Not given symptomatic relief (medication)
Gender of therapist (female patient)
Patient/therapist gender the same
Time on wait list long
Short intake interview
Low social stability
System referrals
Involuntary referrals
Unemployment
Alcohol abuse
Drug abuse
Counselling readiness
Psychological mindedness
High novelty seeking
High impulsiveness
Low frustration tolerance
Poor motivation
Poor introspection abilities
High defensiveness
Experience therapy as unnecessary and intrusive
Therapist gender and dominance interaction
Low therapist experiences
Disagree on definition of problem
Counsellor lack of recognition of client's definition of problem
Lack of patient-therapist similarity
Perceived low relevance of communication
Therapist incongruent re presenting problem
High perspective divergence
Patient low verbal skills
Patient limited ability to abstract & fantasize
Patient not see talking as curative
Patient passive role expectation
Patient/therapist distinct values and lifestyles
Patient symptom orientated expectation for cure
Therapist make decisions not compatible with client expectations
Ethnic minority
Low education
Low income
Negative attitude towards therapist (patient report)
No benefit from therapy (patient report)
Dissimilarity therapist/patient (gender/ ethnicity)
Likeability of client
Likeability of therapist
Therapist ability to understand client
Perceived helpfulness and dedication of therapist
Quality of therapeutic relationships
Consequence of expectations



TABLE 1  
FROM 2002

Patient and therapist satisfaction
Poor working alliance
Patient low capacity to work purposefully
Low agreement on goals and tasks
Therapist low understanding
Low sense of collaboration and mutual involvement
Low patient satisfaction service
Therapist frustrates patients expectations
Low patient satisfaction therapist
Minority status
Age
Income
Substance misuse
Occupational stability
Social isolation
Diagnosis
Impulsivity
Expectations re therapy
Previous experience of therapy
Motivation
Therapist gender
Therapist ethnocentricity
Therapist expectations re therapy
Therapist empathy
Therapist skill
Length of wait
Policy re drug use
Introspection
Frustration tolerance
Motivation
Life circumstances
Positive countertransference

**TABLE 2**

**FROM ATTRITION RESEARCH- WHAT PATIENTS SAY**

<b>Items</b>
No longer need help
Sought help at other facilities
Practical problems
Felt better
Counsellor not easy to relate to
Not getting better or getting worse
Dislike of therapy type
Problem was improved
Practical problems
Dissatisfaction with treatment
Therapy painful
Getting nowhere
Dealing with irrelevant things
Wasting the therapists time
Therapist ignoring real problem
Could not see point of therapy
Dislike of therapist
Therapy too long
Lack of confidence in therapists ability
Dislike of department
Length of time on wait list
Worries about what treatment would consist of
Too embarrassed to discuss problems
Lack of knowledge of role of therapist
Fear of stigmatisation
Thought problems would resolve themselves
Problems improved
Work commitments



**TABLE 3**

**SOCIAL COGNITIVE MODELS**

<b>Items</b>
Older age better
Female better
High SES better
Peer influence
Cultural values
High self-esteem better
High symptom better
Access for medical care
Optimistic personality better
Belief re: benefit of treatment
Knowledge of disease
Social network values
Perception of threat
Severity of threat
Vulnerability to threat
Benefit of action
Social pressure
Subjective norms
Action (outcome) efficacy expectations
Self-efficacy expectations
Barriers to action
Powerful other locus of control
Chance locus of control
Internal locus of control
High value on health
Social support
Receptive to others
Problem solving style
Optimistic attitude
Positive self-image
High self-esteem
Negative attitude to self/body

**TABLE 4**

**NETWORK MODELS**

<b>Items</b>
Cultural routines
Nature of institution
Nature of organisation
Shared norms
Moral value
Social energy
Power
Age
Sex
Race
Network interactions
Education
Social class
Urban/rural
Alternative healers
Self-care
Social support
Emotional support
Instrumental support
Restricted range of treatment
Number of ties
Structure of organisation
Features of organisation
Staff attitudes
Staff feelings about work
Staff ties
Accessibility or organisational networks
Integration of organisations providing service
Personal social support system
Predisposing attitudes
Perceived need
Availability of care
Content of social networks
Strength of social networks
Treatment context
Care deprivation
Integration of care system
Sick role
Patient role
Gender
Age
Education
Work
Marital status
Income



TABLE 1

SOCIAL

Occupation
Caring styles
Nature of illness (severity/visibility)
Expressive or emotional support
Material or practical support
'pro-care' network
Client/care-system congruent
Household income
Assets
Interaction with family/neighbours/community
Service accessibility
Service appeal (attitudes of services)
Service acceptability (quality)
Service cost
Patient estiological model
Expected benefits of treatment
Ease of transport
Connections with hospital staff
Efficacy of prior treatment

**TABLE 5.**

**SOCIAL CAUSATION**

<b>Items</b>
Age
Class
Gender
Race
Money
Employment
Physical ability
Flexibility of job schedule
Adequacy of child-care arrangements
Supportive friends
Supportive neighbours
Economic resource/financial status
Articulacy
Literacy
Self-confidence
Education
Extended family dynamics
Relationship with partner dynamics
Quality of close relationships
Physically disabled
Not in close relationship
Leisure association
Intelligence
Embodiedment
Confidence
Solidarity with others/ alienation
Knowing what wants
Recognition of need
Barriers (cost, work etc)
Health values
Fear of labelling/ discrimination
Emotional support
Practical support
Information support
Self-appraisal support
Shift work
Employer negative attitude
Workmates negative attitude
Frequent travel
More than one job
Low engagement physician
Able to maintain supportive relationships
Hostility



TABLE 2.1

Interpersonal conflict
Interpersonal problems
Low emotional support
Entrapment
Supportive marriage
Good peer relationships
Negative close relationships
Financial problems
Neighbourhood Problems
Social support at work
Participation in communal activity
Membership community groups
Voluntary association
Confiding emotional support
Friendliness of neighbours
Intrusion on privacy
Fears of incompetence
Fears of inferiority
Trust in others
Low self-esteem
Lack defence against insults
Transport
Debt
Interpersonal skills
Cognitive assets

**TABLE 6- CLASSIFICATION OF VARIABLES**

<b>Literature</b>	<b>Author(s)</b>	<b>Domain</b>	<b>Sub-domain</b>
Attrition Research	Sulivan (1958)	Client characteristics	
		Therapist characteristics	
		Environmental and family characteristics	
	Beckham & Bardsley (1986)	Individual pre-disposing factors	
		Attitudes and beliefs	
		Personality traits	
		Structural features of the service	
	Morton (1995)	Individual pre-disposing factors	
		Attitudes and beliefs	
		Structural features of the service	
Social enabling characteristics			
Reis & Brown (1991)	Administrative variables		
	Client variables		
	Structural features of the service		
	Interpersonal variables		
	Therapist variables		
Wierzbicki & Pekarik (1993)	Demographic variables		
	Psychological variables		
	Therapist variables		
	Bruhn, J.G (1988)	Environmental factors	
		Cultural factors	
Group factors			
Personal Factors			
Ogdens, J (2000)	Individual		
	Social support		
	Normative beliefs		
Network models	Pescosolido (1996)	Client	personal support systems
			other community ties



		Service	Treatment facility
			Social services organisation
			State offices/ agencies
		CMHC	Intra-organisational network
			Ties among practitioners
	Pescosolido (1991)	Social support system	
		Episode base	
		Illness career	
	Anderson, R.M (1995)	Individual	characteristics
			demographic
			social structure
			health beliefs
		External environment	family
			community
		Health care system	policy
			resources
			Organisation
Social causation	Leighton, A (1985)	Psychological	
		Affective	
		Cognitive	
		Social interaction	
	Hagan and Green (1997)	Material resources	
		Personal resources	
		Home and family life	
		Social life	
	Bostock ,J (1991)	Psychological	
		Physical	
		Interpersonal	
		Social	
		Financial	
		Physical situation	
		Institutions	
		Practical	
		Citizenship	
		Cultural	

**TABLE 7 DOMAINS AND SUB-DOMAINS**

<b>DOMAIN</b>	<b>SUB-DOMAIN</b>
Family and close friendships (FF)	Beliefs and values (BV)
	Economic (EC)
	Emotional (EM)
	Practical (PR)
Individual (I)	Beliefs and values (BV)
	Distress / disablement (DD)
	Embodiedment (EMB)
	Self concept (SC)
	Skills and knowledge (SK)
Socio-Environmental (SE)	Affiliation (AG)
	Beliefs and values (BV)
	Employment (EMP)
	Housing (HOU)
	Neighbourhood (NE)
	Support agencies (SA)
	Salary/benefits (SB)
	Transport (TR)
	Work (W)
Service system (SS)	Access (ACC)
	Therapist (TPST)
	Therapy (TPY)



TABLE 8

## CLASSIFICATION OF ITEMS

Items	Domain	Sub-domain
'pro-care' network	FF	BV
Information support	FF	BV
Peer influence	FF	BV
Self-appraisal support	FF	BV
Assets	FF	EC
Household income	FF	EC
Instrumental support	FF	EC
Entrapment	FF	EM
Expressive or emotional support	FF	EM
Extended family dynamics	FF	EM
Good peer relationships	FF	EM
Interpersonal conflict/problems	FF	EM
Low emotional support	FF	EM
Not in close relationship	FF	EM
Personal social support system	FF	EM
Relationship with partner dynamics	FF	EM
Social isolation	FF	EM
Solidarity with others/ alienation	FF	EM
Spouse/partner has personality disturbance	FF	EM
Supportive marriage	FF	EM
Adequacy of child-care arrangements	FF	PR
Material or practical support	FF	PR
Action (outcome) efficacy expectations	I	BV
Chance locus of control	I	BV
High value on health	I	BV
Internal locus of control	I	BV
Negative attitude towards therapist (patient report)	I	BV
Optimistic attitude	I	BV
Patient estiological model	I	BV
Patient not see talking as curative	I	BV
Patient passive role expectation	I	BV
Patient symptom orientated expectation for cure	I	BV
Previous experience of therapy	I	BV
Self-efficacy expectations	I	BV
Thought problems would resolve themselves	I	BV
Wasting the therapists time	I	BV
Aggressive behaviour (sociopathic)	I	DD
Alcohol abuse	I	DD
Censors emotions	I	DD
Decreased capacity to tolerate anxiety	I	DD
Defensive	I	DD
Diagnosis	I	DD
Drug abuse	I	DD



High depression	I	DD
Hostility to authorities (sociopathic)	I	DD
Paranoid symptoms	I	DD
Poorly motivated	I	DD
Severity of threat	I	DD
Symptom level	I	DD
Age	I	EMB
Gender	I	EMB
High impulsiveness	I	EMB
High novelty seeking	I	EMB
Likeability of client	I	EMB
Low frustration tolerance	I	EMB
Motivation	I	EMB
Nature of illness (severity/visibility)	I	EMB
Patient low capacity to work purposefully	I	EMB
Perceived need	I	EMB
Physical ability	I	EMB
Physically disabled	I	EMB
Power	I	EMB
Race	I	EMB
Social energy	I	EMB
Vulnerability to threat	I	EMB
Admit psychological and interpersonal problems	I	SC
Experience therapy as unnecessary and intrusive	I	SC
Failure to accept dependent role	I	SC
Fears of incompetence	I	SC
Fears of inferiority	I	SC
High need for approval	I	SC
High self-esteem	I	SC
Hostility	I	SC
Knowing what wants	I	SC
Lack defence against insults	I	SC
Less adequate and inferior	I	SC
Less objective with self	I	SC
Low self-esteem	I	SC
More evasive/ less willing to reveal self	I	SC
Negative attitude to self/body	I	SC
Positive self-image	I	SC
Receptive to others	I	SC
Self-confidence	I	SC
Sick role	I	SC
Too embarrassed to discuss problems	I	SC
Trust in others	I	SC
Able to maintain supportive relationships	I	SK
Accept the use of psychological concepts	I	SK
Articulacy	I	SK
Cognitive assetts	I	SK
Counselling readiness	I	SK
Intelligence	I	SK
Interpersonal skills	I	SK



Introspection	I	SK
Knowledge of disease	I	SK
Literacy	I	SK
Low education	I	SK
Patient limited ability to abstract & fantasize	I	SK
Patient low verbal skills	I	SK
Perception of threat	I	SK
Problem solving style	I	SK
Psychological mindedness	I	SK
Recognition of need	I	SK
Self-care	I	SK
Ethnic minority	SE	AG
Leisure association	SE	AG
Participation in communal activity	SE	AG
Patient unaffiliation	SE	AG
Content of social networks	SE	BV
Cultural routines	SE	BV
Cultural values	SE	BV
Employer negative attitude	SE	BV
Fear of labelling/ discrimination	SE	BV
Powerful other locus of control	SE	BV
Social network values	SE	BV
Social pressure	SE	BV
Strength of social networks	SE	BV
Workmates negative attitude	SE	BV
Employment	SE	EMP
Low occupation	SE	EMP
Occupational stability	SE	EMP
Unemployment	SE	EMP
Practical problems	SE	HOU
Fear of stigmatisation	SE	NE
Friendliness of neighbours	SE	NE
Intrusion on privacy	SE	NE
Low social stability	SE	NE
Neighbourhood Problems	SE	NE
Restricted or unmodifiable environment	SE	NE
Supportive neighbours	SE	NE
Legal troubles (sociopathic)	SE	SA
Economic resource/financial status	SE	SB
Financial problems	SE	SB
Low income	SE	SB
Money	SE	SB
Transport	SE	TR
Barriers (cost, work etc)	SE	W
Flexibility of job schedule	SE	W
Frequent travel	SE	W
More than one job	SE	W
Shift work	SE	W
Social support at work	SE	W
Work commitments	SE	W



Access for medical care	SS	ACC
Accessibility or organisational networks	SS	ACC
Availability of care	SS	ACC
Dislike of department	SS	ACC
Institutional referral	SS	ACC
Integration of organisations providing service	SS	ACC
Interruption of therapeutic relationship	SS	ACC
Involuntary referrals	SS	ACC
Lack of knowledge of role of therapist	SS	ACC
Length of time on wait list	SS	ACC
Low patient satisfaction service	SS	ACC
Nature of organisation	SS	ACC
Policy re drug use	SS	ACC
Service acceptability (quality)	SS	ACC
Service accessibility	SS	ACC
Service appeal (attitudes of services)	SS	ACC
Service cost	SS	ACC
Short intake interview	SS	ACC
Small clinic size (small no of therapists)	SS	ACC
Staff attitudes	SS	ACC
Time on wait list long	SS	ACC
Counsellor lack of recognition of client's definition of problem	SS	TPST
Counsellor not easy to relate to	SS	TPST
Gender of therapist (female patient)	SS	TPST
Lack of confidence in therapists ability	SS	TPST
Likeability of therapist	SS	TPST
Low patient satisfaction therapist	SS	TPST
Perceived helpfulness and dedication of therapist	SS	TPST
Perceived low relevance of communication	SS	TPST
Positive countertransference	SS	TPST
Small clinic size (low calibre of therapists)	SS	TPST
Therapist ability to understand client	SS	TPST
Therapist dislikes patient	SS	TPST
Therapist empathy	SS	TPST
Therapist ethnocentricity	SS	TPST
Therapist frustrates patients expectations	SS	TPST
Therapist gender	SS	TPST
Therapist high on ethnocentricity	SS	TPST
Therapist ignoring real problem	SS	TPST
Therapist incongruent re presenting problem	SS	TPST
Therapist low expectations for improvement	SS	TPST
Therapist low experience	SS	TPST
Therapist low understanding	SS	TPST
Therapist make decisions not compatible with client expectations	SS	TPST
Therapist not interested in patient's problems	SS	TPST
Therapist rates patient attractive (higher class, white, female)	SS	TPST
Therapist skill	SS	TPST
Could not see point of therapy	SS	TPY



Dealing with irrelevant things	SS	TPY
Dislike of therapy type	SS	TPY
Dissatisfaction with treatment	SS	TPY
Efficacy of prior treatment	SS	TPY
Not getting better or getting worse	SS	TPY
Not given symptomatic relief (medication)	SS	TPY
Restricted range of treatment	SS	TPY
Therapy painful	SS	TPY
Therapy too long	SS	TPY
Worries about what treatment would consist of	SS	TPY

## APPENDIX B – Distribution of CATA 114 items

This appendix contains the 114 items generated to form the initial questionnaire CATA114 and the results of the exercise to establish discriminant and convergent validity of items.

Table 1 describes the item distribution in relation to the sub-constructs and domains.

Tables 2 to 13 contain the questionnaire items for each of the 12 cells of the sub-constructs x domains matrix and the results of the validity exercise. Items marked in bold show relatively good convergent and discriminant properties. Items marked with an \* were selected to form questionnaire CATA 72.



**TABLE 1 CATA 114**

**QUESTIONNAIRE ITEM DISTRIBUTION X SUB-CONSTRUCTS AND DOMAINS**

	<u>DOMAIN</u>				
		<b>Individual</b>	<b>Family/Friends</b>	<b>Social/Environment</b>	<b>Service systems</b>
<u>SUB CONSTRUCT</u>	<b>Demands</b>	Cell 1	Cell 2	Cell 3	Cell 4
	<b>Liabilities</b>	Cell 5	Cell 6	Cell 7	Cell 8
	<b>Expected Outcome</b>	Cell 9	Cell 10	Cell 11	Cell 12

**TABLE 2 - CELL NUMBER 1**

**Individual /Demands.**

**DOMAIN/SUB-CONSTRUCT**

Question Number	Sub-domain	Item Content	I	FF	SE	SS	D	L	E
1*	EMB	Attending therapy appointments interferes with my ability to enjoy life.	7	0	0	1	9	1	0
21*	BV	I feel worse about myself as a result of being referred to see a therapist.	9	0	0	1	3	6	1
39	EMB	Doing the things my therapist wants me to do interferes with the things I enjoy doing.	5	0	4	1	9	1	0
63*	SC	I feel ashamed of having to see a Therapist.	10	0	0	0	3	7	0
71*	EMB	Attending therapy appointments gets in the way of me doing the things that I want to do.	6	0	3	1	9	1	0
92*	BV	I want to feel good about myself but this is difficult if I am attending therapy.	10	0	0	0	7	2	1
93	SC	I want people to think of me as normal but this is unlikely if I am attending therapy.	9	0	1	0	5	5	0
94*	SC	I like enjoying the company of people I know but this is difficult if I am attending therapy.	6	0	3	1	6	4	0



TABLE 3 - CELL NUMBER 2

## Family-Friends/ Demands

## DOMAIN /SUB-CONSTRUCT

Question Number	Sub-domain	Item Content	I	FF	SE	SS	D	L	E
2*	PR	I have difficulty looking after my family properly and attending appointments.	0	9	0	1	9	1	0
19*	PR	I have problems with childcare (or care of a dependent adult) when trying to keep appointments.	0	5	4	1	8	2	0
53*	PR	I have so many things to do with the family or other people close to me that it is hard to find the time to do what the therapist wants me to do.	1	7	2	1	7	3	0
64	BV	Someone close thinks I should be able to overcome this problem without therapy.	0	10	0	0	2	8	0
76	EM	My family/friends are critical of me looking for help because it interferes with their needs.	0	10	0	0	3	7	0
95*	BV	Someone close is critical of me attending therapy because they think it looks bad to other people.	0	10	0	0	1	9	0
101*	EM	Someone close to me expects too much from me emotionally at this time.	0	10	0	0	3	7	0
108*	EC	Someone close to me expects too much from me financially at this time.	0	10	0	0	4	6	0

TABLE 4 - CELL NUMBER 3

## Social-Environmental/Demands

## DOMAIN/SUB-CONSTRUCT

Question Number	Sub-domain	Item Content	I	FF	SE	SS	D	L	E
11*	SA	I have too many other appointments to keep (eg, DSS, Job Centre etc.).	0	0	8	2	9	1	0
28*	SB	It costs me money at work (or at home) when I attend appointments.	2	0	8	0	8	2	0
37*	TR	I have problems with transport when getting to appointments (eg, cost, hassles etc).	0	0	9	1	5	5	0
54*	W	I have problems taking time off work to attend appointments.	0	0	10	0	8	3	0
72	W	I feel less able to cope with the thought of work since I was sent to see a Therapist.	8	0	1	1	4	5	1
90*	TR	When the weather is bad I find it hard to attend appointments.	2	0	7	1	3	6	1
96	W	People I work with expect me to work just as hard even though I am not well.	0	0	10	0	3	7	0
102*	AG	People I socialise with expect too much from me at this time.	0	2	8	0	3	8	1



**TABLE 5 - CELL NUMBER 4**

**Service System/demands**

**DOMAIN/SUB-CONSTRUCT**

Question Number	Sub-domain	Item Content	I	FF	SE	SS	D	L	E
3*	TPY	I dislike confronting painful emotions in therapy.	10	0	0	0	7	3	0
4	ACC	It is hard getting around the hospital site.	0	0	4	6	6	4	0
9*	ACC	It is unpleasant being surrounded by lots of people in the waiting room.	1	0	1	8	5	5	0
10*	ACC	I have too many appointments with health professionals.	2	0	1	7	9	1	0
18*	TPY	I worry about what therapy is doing to me.	5	0	1	3	3	2	5
27*	TPST	I feel uncomfortable with the Therapist.	2	0	0	7	6	4	0
29	TPY	I resent having to continually repeat my story.	3	0	1	7	8	2	0
30	ACC	I am concerned about my safety in the department waiting room.	2	0	0	7	3	7	0
40*	TPY	I dislike talking about embarrassing things to the therapist.	10	0	0	0	7	3	0
51	TPY	When seeing the Therapist I am fearful of losing control or “going mad”.	9	0	0	1	6	4	0
55	TPY	I am concerned about having feelings (eg, affection, hurt, anger, and embarrassment) towards the Therapist that I find hard to cope with.	9	0	0	1	5	4	1
73	ACC	I did not seek the referral but was “just sent” for therapy	0	0	1	9	2	7	1

TABLE 6 - CELL NUMBER 5

## Individual/ Liabilities

## DOMAIN/SUB-CONSTRUCT

Question Number	Sub-domain	Item Content	I	FF	SE	SS	D	L	E
5*	SK	Wherever I go I always find it difficult to say an appointment time is not convenient.	9	0	0	1	0	10	0
12*	DD	I often have difficulty remembering to keep appointments.	9	0	1	1	1	9	0
14*	BV	I believe there is nothing I can do to make my life better no matter what I do.	10	0	0	0	0	2	8
26	SK	Wherever I go if I miss an appointment I find it hard to make a new one.	9	0	0	1	0	10	0
31*	SC	I always feel humiliated when talking about myself.	7	0	0	3	4	6	0
52	DD	I have physical problems that make it hard for me to attend appointments.	8	0	1	1	1	9	0
56	SK	I need someone to help me during sessions, eg. Support, a language interpreter, etc.	0	0	0	10	1	9	0
70*	SK	I have problems with reading and writing.	8	0	1	1	1	9	0
84*	DD	Often I am not well enough to attend appointments.	10	0	0	0	2	8	0
91	BV	I believe I should sort my problems out myself.	9	0	0	1	0	7	3
97	BV	I believe that I just don't get the breaks- there is no reason to think that therapy will really help me	10	0	0	0	0	2	8



TABLE 7 - CELL NUMBER 6

## Family-Friends/Liabilities

## DOMAIN/SUB-CONSTRUCT

Question Number	Sub-domain	Item Content	I	FF	SE	SS	D	L	E
6*	EM	Someone close to me worries about what I say to the Therapist.	0	10	0	0	1	9	0
13	EM	Someone close to me is critical because I often feel worse after seeing a Therapist.	0	10	0	0	0	10	0
25	EM	Someone close to me worries about what happens with the Therapist.	0	10	0	0	2	8	0
32	EM	I need emotional support at this time but my family/friends do not understand.	0	9	1	0	1	9	0
57*	EM	Someone close to me resents me having someone else to talk to.	0	10	0	0	1	9	0
69*	PR	I need assistance to attend appointments but family or friends do not have the time to help.	0	7	2	1	2	8	0
78*	BV	Someone close to me doesn't believe that therapy can help.	0	10	0	0	1	9	0
82	BV	Someone close thinks less of me because I have been referred to a therapist.	0	10	0	0	2	8	0
83	SC	I worry about who will find out about what is said in therapy.	6	0	0	4	0	9	1
87*	PR	My family/friends do not support me attending because it interferes with their needs.	0	10	0	0	2	8	0

103*	BV	Someone close to me doesn't believe that I am capable of changing myself.	0	<b>10</b>	0	0	1	<b>8</b>	<b>1</b>
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**TABLE 8 - CELL NUMBER 7**

**Social-Environment/Liabilities**

**DOMAIN/SUB-CONSTRUCT**

<b>Question Number</b>	<b>Sub-domain</b>	<b>Item Content</b>	<b>I</b>	<b>FF</b>	<b>SE</b>	<b>SS</b>	<b>D</b>	<b>L</b>	<b>E</b>
7*	EMP	It might cause problems if my employer finds out about me seeing a Therapist	0	0	10	0	1	7	2
45*	BV	My workmates/friends look down on people who go to see a therapist.	1	2	7	0	0	10	0
50	SA	I worry what my child's school may think about me seeing a Therapist.	2	0	8	0	1	9	0
58*	SA	I am concerned about what social services (or some other agency) will think if they find out that I have been referred to see a therapist.	2	0	7	1	2	7	1
65*	NE	If I were to bump into a neighbour in the department /clinic it could cause problems for me in my neighbourhood.	0	0	8	2	3	6	1
75*	BV	People around where I live think that therapy is a waste of time.	0	1	9	0	1	9	0
104*	HOU	It is difficult to find the space or privacy where I live to do the things my therapist wants me to do.	1	1	8	0	3	7	0

**TABLE 9 - CELL NUMBER 8**

**Service System/ Liabilities**

**DOMAIN/SUB-CONSTRUCT**

Question Number	Sub-domain	Item Content	I	FF	SE	SS	D	L	E
8	TPST	I worry what the therapist really thinks about me.	9	0	0	1	4	5	1
17*	TPST	I am concerned about the gender of the person I am expected to see.	3	0	0	7	2	8	0
20*	ACC	The department staff are unhelpful.	1	0	0	9	4	6	0
24	TPST	The therapists does not really listen to what I say.	1	0	0	9	1	8	1
33*	TPST	It is difficult to understand what the therapist is talking about.	1	0	0	9	2	8	0
44	BV	The therapist looks down on me because I'm a patient.	2	0	0	8	3	7	0
46	SA	Another health professional I see is critical of me attending therapy.	1	0	3	6	1	9	0
59*	TPST	The therapist does not really understand my problems.	2	0	0	8	3	6	1
66	BV	The therapists does not really care about me as an individual.	1	0	0	9	3	7	0
79*	ACC	The appointment times are not convenient.	0	0	0	10	3	7	0
88	BV	I need "proper help" with my problems and not just talking.	6	0	0	4	0	3	7
89	BV	The therapist is over-critical of me.	1	0	0	9	6	4	0



110*	BV	The type of therapy / treatment on offer is not appropriate for my problems.	0	0	0	<b>10</b>	0	1	9
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TABLE 10 - CELL NUMBER 9

## Individual/Expected Outcome

## DOMAIN/SUB-CONSTRUCT

Question Number	Sub-domain	Item Content	I	FF	SE	SS	D	L	E
34*	BV	I don't really expect my life to improve very much even if therapy is successful.	10	0	0	0	5	5	0
43*	EMB	Even if I improve, after therapy I will still have a boring life.	10	0	0	0	0	0	10
60*	EMB	Even if I improve with therapy I can't see me ever being happy with the way I am.	10	0	0	0	0	0	10
77*	SK	Even if I improve with therapy not being as clever or skilful as other people will always cause me problems in life.	6	0	4	0	0	1	9
86*	SC	I worry about what will happen to me if I get better.	10	0	0	0	0	1	9
105	BV	I can only see things getting worse not better for me.	10	0	0	0	0	0	10
107*	DD	Even if I improve with therapy I will still be left with the real problem of the state of my body.	10	0	0	0	0	0	10
109	BV	Even if I improve with therapy it is unlikely that I will get any real satisfaction from my life in the future.	10	0	0	0	0	0	10
111	BV	Even if I improve with therapy I will always be ashamed of not having coped without help.	10	0	0	0	0	0	10



TABLE 11 - CELL NUMBER 10

## Family-Friends/Expected Outcome

## DOMAIN/SUB-CONSTRUCT

Question Number	Sub-domain	Item Content	I	FF	SE	SS	D	L	E
23	BV	Even if therapy were successful someone close would always think of me as 'mental' because I had seen a therapist.	0	9	1	0	0	0	10
35*	PR	I worry family/friends will expect me to do too much if therapy is successful.	2	8	0	0	0	0	10
42*	EC	I worry about losing the financial support I get from family or friends if I improve as a result of therapy.	1	8	1	0	0	0	10
61*	EM	After therapy I will have more emotional problems in my close relationships than I have now.	1	9	0	0	0	0	10
80*	EC	If I get better this will cause financial problems for someone close to me.	0	10	0	0	0	0	10
98	BV	Even if therapy were successful someone close to me would still not believe it is possible to change yourself.	1	9	0	0	0	3	7
99*	EM	After therapy I will still be left with the real problem of not having a good close relationship.	3	7	0	0	0	0	10
106	EM	I worry that someone close will expect too much from me emotionally if I improve as a result of therapy.	1	9	0	0	1	0	9

112*	PR	If I get better this will cause practical problems for someone close to me.	0	9	1	0	0	2	8
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Question Number	Sub-domain	Item Content	L	FF	SE	SS	D	L	E
15*	SB	After therapy I will still be left with the real problem of not having enough money.	1	0	9	0	0	0	10
16*	NE	After therapy I will still be left with the real problem of the neighbourhood in which I live.	1	0	9	0	0	0	10
22*	SB	I worry about losing the benefits I receive if I complete therapy and improve.	2	0	8	0	0	1	9
36*	BY	Even if therapy were successful neighbours would always think of me as 'mental', if they knew I attended therapy.	1	0	9	0	0	0	10
38*	W	After therapy I will still be left with the real problem of having an awful job or of having to do awful things in order to get by.	0	0	10	0	0	0	10
43	W	I worry that I will be expected to get a job if I improve.	5	0	4	0	0	0	10
49	AG	Even if therapy were successful, if they knew, people I socialise with would always think of me as 'mental'.	1	2	7	0	0	1	9
62*	HOU	After therapy I will still be left with the real problem of poor housing.	0	0	10	0	0	0	10



TABLE 12 - CELL NUMBER 11

## Social-Environmental/Expected Outcome

## DOMAIN/SUB-CONSTRUCT

Question Number	Sub-domain	Item Content	I	FF	SE	SS	D	L	E
15*	SB	After therapy I will still be left with the real problem of not having enough money.	1	0	9	0	0	0	10
16*	NE	After therapy I will still be left with the real problem of the neighbourhood in which I live.	1	0	9	0	0	0	10
22*	SB	I worry about losing the benefits I receive if I complete therapy and improve.	2	0	8	0	0	1	9
36*	BV	Even if therapy were successful neighbours would always think of me as 'mental' if they knew I attended therapy.	1	0	9	0	0	0	10
38*	W	After therapy I will still be left with the real problem of having an awful job or of having to do awful things in order to get by.	0	0	10	0	0	0	10
47	W	I worry that I will be expected to get a job if I improve.	6	0	4	0	0	0	10
49	AG	Even if therapy were successful, if they knew, people I socialise with would always think of me as 'mental'.	1	2	7	0	0	1	9
62*	HOU	After therapy I will still be left with the real problem of poor housing.	0	0	10	0	0	0	10

74	EMP	In my social position I will never have a worthwhile job or something worthwhile to do with my life.	3	0	7	0	0	0	10
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Question Number	Sub-domain	Item Content	I	FF	SE	SS	D	L	E
61*	TPY	I don't want to go nowhere (eg. its too long and too uncertain)	1	0	0	9	1	1	8
48	TPY	Nothing therapy has ever worked for me.	3	0	0	7	0	0	10
67*	TPY	I worry that I will be expected to stop my medication if I improve.	8	0	0	2	0	0	10
68*	TPSY	I have doubts about the Therapist's ability to help me.	7	0	0	3	0	3	7
81	TPY	My problems have gone away	10	0	0	0	0	4	6
83	TPY	I cannot see the point of therapy (e.g., it is irrelevant to my problems)	7	0	0	3	0	0	10
100*	AOC	I can't see it's putting up with the lack of consideration shown by the service for very long.	1	0	0	9	1	9	0
113*	BE	The therapist does not really believe that my life will improve as a result of therapy.	0	0	0	10	0	3	7
114*	BE	The therapist does not really believe that I am capable of changing myself.	0	0	0	10	0	3	7



TABLE 13 - CELL NUMBER 12

Service System/Expected Outcome.

DOMAIN/SUB-CONSTRUCT

Question Number	Sub-domain	Item Content	I	FF	SE	SS	D	L	E
41*	TPY	Therapy seems to go nowhere (eg, its too long and too uncertain)	1	0	0	9	1	1	8
48	TPY	Previous therapy has not worked for me.	3	0	0	7	0	0	10
67*	TPY	I worry that I will be expected to stop my medication if I improve.	8	0	0	2	0	0	10
68*	TPST	I have doubts about the Therapist's ability to help me.	7	0	0	3	0	3	7
81	TPY	My problems have gone away.	10	0	0	0	0	4	6
85	TPY	I cannot see the point of therapy (e.g., it is irrelevant to my problems).	7	0	0	3	0	0	10
100*	ACC	I can't see me putting up with the lack of consideration shown by the service for very long.	1	0	0	9	1	9	0
113*	BV	The therapist does not really believe that my life will improve as a result of therapy.	0	0	0	10	0	3	7
114*	BV	The therapist does not really believe that I am capable of changing myself.	0	0	0	10	0	3	7

## APPENDIX C – Instructions to raters

This appendix contains the instructions for raters used in the exercise to establish the convergent and discriminant properties of the questionnaire items.

Included: Instructions.

Definitions of constructs.

Definitions of domains.

CATA 114



## ALLOCATING QUESTIONNAIRE ITEMS TO CONSTRUCTS AND DOMAINS

The research I am undertaking is to develop a theory to explain why people of low socio-economic status are more likely to drop out of therapy.

My approach is from a community psychology perspective and can be encapsulated in the following quotes:

*"It is not just that well-resourced, more educated or middle class clients are likely to be able to better to 'make use' of therapy than those less privileged but that they have available to them power and resources which make it possible for them to operate on their proximal environment" Hagan and Smail (1997).*

*"Thus this community psychology perspective is useful in illuminating why therapy is of more use to some people than others, not because of differences in motivation but because of the balance of personal and social resources and pressures" Bostock (1998).*

The hypothesis is that patients make decisions to attend or not to attend therapy based on both the personal cost of attending and on the personal expectation for the effect(s) of therapy on their life when therapy is over. I expect that people of low socio-economic status to be disadvantaged by both.

The cost of attending therapy will depend upon the total demands upon a person in relation to attending therapy and the resources or lack of resources (liabilities) available to them.

Both the cost of attending therapy and expectations for outcome will arise from and impact upon various aspects (or domains) within a person's life. These will include the person themselves; their family or close friends; their social and environmental milieu; the therapy system itself.

As part of this research I am developing a questionnaire for patients to complete. The questionnaire should clearly relate to the underlying theory I am developing. I am therefore interested in whether items can be reliably allocated to the constructs I have developed and to different domains in a person's life.

Please take time to read carefully the construct and domain definitions that follow. After this there are two exercises I would like you to complete.



Exercise 1 ask you to allocate each questionnaire item to one of the three constructs and exercise 2 asks you to allocate the same items to one of the four domains. Please feel free to re-read the definitions as you go.

## **BACKGROUND PERSPECTIVE ON REASONS FOR PEOPLE DROPPING OUT OF THERAPY**

*Please read the following before going on to the attached task.*

### **Labelling**

Medicine, as the predominant profession, has social functions over and above its manifest function of 'curing the sick'. Not least amongst these is the function of 'role designation' – the power to say who is sick and who is not sick. Most people would rather be well than sick. However, most people have varying degrees of ill-health most of the time. Sickness is normally only applied where 'social role functioning' is affected.

Being labelled 'sick' may confer many advantages:

- symptomatic relief
- 'sick note'
- disability benefits
- early retirement
- relief from domestic responsibilities
- support of others

### **Transactional nature of health encounters and the construction of meaning**

When a person seeks help from a health care practitioner they are aware of the 'game' and its rules. They present their account in ways which they think will help them achieve their aims. The professional listens and asks questions from their theoretical stand point-disregarding information that doesn't fit. Finally, an agreed account is arrived at – often this will be satisfactory to both parties although their true understanding may differ considerably.

For example:

An unmarried mother on a rundown housing estate where drug-use and crime is rife may go to her General Practitioner and complain of having problems sleeping. After the transaction she may agree that she is depressed and happily take the prescription which is what she wants. However, whilst the General Practitioner needed to make the diagnosis of depression in order to prescribe the medication, the patient herself may simply be looking for symptomatic relief for an understandable reaction to an intolerable situation.



However, in the transaction things can go wrong. For example, the General Practitioner seeing no improvement in the patient over time may decide to refer her to a Psychiatrist. The patient is now confronted with a new set of problems, whether it is worth taking on a label 'mentally ill' in return for any perceived benefits.

What about these people sent for psychotherapy – what new set of problems does this pose for them? The simple view from the psychotherapy literature is that people come with their diagnoses to therapy in order to be cured or obtain relief. Virtually no attention is given to the problems this may pose for many people in their broad coping strategies.

Even more problematic is the assumption that there are few direct costs or iatrogenic effects attached to therapy. Are we really sure this is true?

Take the example of the unmarried mother above. Imagine she is sent by her General Practitioner for psychotherapy. She is now confronted with being 'found out' by a person who may have the power to revoke her status as 'depressed' and the benefits which go with this. What is she to make of the initial interview with the nice smiling white middle-class male in his office?

A thumbnail sketch will give some ideas:

- working class female
- ethnic minority
- single parent
- failure/humiliation at school
- powerful makes use and abuse her
- personal information – social weapon (gossip)
- routine interrogation by Social Services, e.g. benefit entitlement, child protection issues.
- police investigations

What further happens when the transaction proceeds and the therapist highlights certain points and starts to present an abstract model that seems to imply that the person should look inside in one way or another for the source of their distress with its implicit notions of self-blame.

It is little wonder patients who reject therapy is often described as:

- low socio-economic status
- aggressive/hostile to authority
- paranoid
- less psychologically minded
- Defensive/less willing to reveal self, etc.

***WHEN DECIDING UPON THE ALLOCATION OF ITEMS TO THE VARIOUS CATEGORIES IN THE ATTACHED EXERCISES PLEASE KEEP THE VIEW OF SUCH A PATIENT AT THE FORFRONT OF YOUR MIND.***



## DOMAIN DEFINITION

### CONSTRUCT DEFINITIONS

#### PERSONAL

#### DEMANDS

Attending therapy may impose extra demands upon the individual. Day to day life will already impose a range of demands such as attending work, looking after family or seeing friends and the need for personal recreation, etc. On top of this then a person may find the process of attending therapy difficult or distressing, which adds to the total demands in their life.

Demands are calls upon the individual's psychological, emotional and physical being and arises from desires, need, necessities, commitments and expectations from others.

Demands may relate to any domain including personal, family/friendship, social/environmental, and service (therapy) system.

#### LIABILITIES

How a person copes with the additional demands of attending therapy depends upon the resources available to them. Liabilities refer to a lack of those resources that would enable a person to sustain a course of therapy. This may involve personal attributes or abilities, a lack of support from family or friends or a lack of social enabling factors.

Liabilities cause psychological, emotional or physical disadvantage to the individual in relation to attending therapy.

Liabilities may relate to any domain including personal, family/friendship, social/environmental, and service (therapy) system.

#### EXPECTED OUTCOME

Motivation to attend therapy will be affected by a person's expectation for the eventual effect of therapy on their life. Negative expectations may include the view that therapy cannot help or that therapy is not relevant or, alternatively, that even if therapy did alleviate their distress it would have other possibly greater negative consequences on the person's life.

Expected outcome refers to the person's expectations for the future after therapy whether or not therapy has been successful in simple therapy terms.

Expected outcomes may relate to any domain including personal, family/friendship, social/environmental, and service (therapy) system.



## **DOMAIN DEFINITION**

### **PERSONAL**

The personal domain relates to the attributes of the individual rather than the situation they are in. For example, most people will find it difficult talking about embarrassing things so this would be a feature of the situation. However if someone were to avoid much needed help because of his or her feelings this would be attributed to the individual.

The personal domain may include the individual's body, activities, thoughts, feelings, and beliefs and values.

The personal domain may include demands, liabilities, or expectations for the future.

### **FAMILY/FRIENDS**

The family/friendship domain refers of the relationship between the individual and their close personal relationships. These relationships will have a level of intimacy and sharing not seen with people in general such as workmates or neighbours.

The attributes of relationships may include; practical; emotional; financial; and beliefs and values.

The family/friendship domain may include demands, liabilities, or expectations for the future.

### **SOCIAL/ENVIRONMENTAL**

The social/environmental domain refers to those attributes of the general milieu in which a person lives their life outside of the immediate family/friendship group.

This may include; transport; housing; neighbours/neighbourhood; work/role demands; employment/social role; salary/benefits; affiliation groups; support agencies; beliefs and values of people in these systems. It does not include the service (therapy) system described below.

The social/environmental domain may include demands, liabilities, or expectations for the future.

### **SERVICE (THERAPY) SYSTEM**

The service (therapy) system domain refers to the attributes of the systems of delivery of therapy.

This will include: therapy itself; the therapist; access; the place where therapy is delivered; the systems that support the delivery of therapy; and allied health systems.

The service (therapy) system domain may include demands, liabilities, or expectations for the future.



		D E M A N D S	L I A B I L I T I E S	E X P O U T C O M E	
	CATA114CON  EXERCISE 1 Please ensure you have fully understood the construct and domain definitions before proceeding. Allocate each item to one (and only one) construct by placing a tick in the appropriate box alongside.				
1	Attending therapy appointments interferes with my ability to enjoy life.				
2	I have difficulty looking after my family properly and attending appointments.				
3	I dislike confronting painful emotions in therapy.				
4	It is hard getting around the hospital site.				
5	Wherever I go I always I find it difficult to say an appointment time is not convenient.				
6	Someone close to me worries about what I say to the Therapist.				
7	It might cause problems if my employer finds out about me seeing a Therapist				
8	I worry what the therapist really thinks about me.				
9	It is unpleasant being surrounded by lots of people in the waiting room.				
10	I have too many appointments with health professionals.				
11	I have too many other appointments to keep (e.g. DSS, Job Centre etc.).				
12	I often have difficulty remembering to keep appointments.				
13	Someone close to me is critical because I often feel worse after seeing the Therapist.				
14	I believe there is nothing I can do to make my life better no matter what I do.				
15	After therapy I will still be left with the real problem of not having enough money.				
16	After therapy I will still be left with the real problem of the neighbourhood in which I live.				
17	I am concerned about the gender of the person I am expected to see.				
18	I worry about what therapy is doing to me.				
19	I have problems with childcare (or care of a dependent adult) when trying to keep appointments.				
20	The department staff are unhelpful.				



		D E M A N D S	L I A B I L I T I E S	E X P O U T C O M E	
21	I feel less able to help myself since being referred to see a therapist.				
22	I worry about losing the benefits I receive if I complete therapy and improve.				
23	Even if therapy were successful someone close would always think of me as 'mental' because I had seen a therapist.				
24	The therapists does not really listen to what I say.				
25	Someone close to me worries about what happens with the Therapist.				
26	Wherever I go if I miss an appointment I find it hard to make a new one.				
27	I feel uncomfortable with the Therapist.				
28	It costs me money at work (or at home ) when I attend appointments.				
29	I resent having to continually repeat my story.				
30	I am concerned about my safety in the department waiting room.				
31	I always feel humiliated when talking about myself.				
32	I need emotional support at this time but my family / friends do not understand.				
33	It is difficult to understand what the therapist is talking about.				
34	I don't really expect my life to improve very much even if therapy is successful.				
35	I worry family/friends will expect me to do too much if therapy is successful.				
36	Even if therapy were successful neighbours would always think of me as 'mental' if they knew I saw a therapist.				
37	I have problems with transport when getting to appointments (e.g. cost, hassles, etc.).				
38	After therapy I will still be left with the real problem of having an awful job or of having to do awful things in order to get by.				
39	Doing the things my therapist wants me to do interferes with the things that I enjoy doing.				
40	I dislike talking about embarrassing things to the therapist.				



		D E M A N D S	L I A B I L I T I E S	E X P O U T C O M E	
41	Therapy seems to go nowhere (e.g., it is too long and too uncertain, etc.).				
42	I worry about losing the financial support I get from family or friends if I improve as a result of therapy.				
43	Even if I improve, after therapy I will still have a boring life.				
44	The therapist looks down on me because I'm a patient.				
45	My workmates/friends look down on people who go to see a therapist.				
46	Another health professional I see is critical of me attending therapy.				
47	I worry that I will be expected to get a job if I improve.				
48	Previous therapy has not worked for me.				
49	Even if therapy were successful, if they knew, people I socialise with would always think of me as 'mental'.				
50	I worry what my child's school may think about me seeing a Therapist.				
51	When seeing the Therapist I am fearful of losing control or "going mad".				
52	I have physical problems that make it hard for me to attend appointments.				
53	I have so many things to do with the family or other people close to me that it is hard to find the time to do what the therapist wants me to do.				
54	I have problems taking time off work to attend appointments.				
55	I am concerned about having feelings (eg, affection, hurt, anger, and embarrassment) towards the Therapist that I find hard to cope with.				
56	I need someone to help me during sessions, e.g. support, a language interpreter, etc.				
57	Someone close to me resents me having someone else to talk to.				
58	I am concerned about what social services (or some other agency) will think if they find out that I have been referred to see a therapist.				
59	The therapist does not really understand my problems.				
60	Even if I improve with therapy, I can't see me ever being happy with the way I am.				



		D E M A N D S	L I A B I L I T I E S	E X P O U T C O M E	
61	After therapy I will have more emotional problems in my close relationships than I have now.				
62	After therapy I will still be left with the real problem of poor housing.				
63	I feel ashamed of having to see a Therapist.				
64	Someone close thinks I should be able to overcome this problem without therapy.				
65	If I were to bump into a neighbour in the department /clinic it could cause problems for me in my neighbourhood.				
66	The therapists does not really care about me as an individual.				
67	I worry that I will be expected to stop my medication if I improve.				
68	I have doubts about the Therapist's ability to help me.				
69	I need assistance to attend appointments but family or friends do not have the time to help.				
70	I have problems with reading and writing.				
71	Attending therapy appointments gets in the way of me doing the things that I want to do.				
72	I feel less able to cope with the thought of work since I was sent to see a therapist.				
73	I did not seek the referral but was "just sent" for therapy.				
74	In my social position I will never have a worthwhile job or something worthwhile to do with my life.				
75	People around where I live think that therapy is a waste of time.				
76	My family/friends are critical of me looking for help because it interferes with their needs.				
77	Even if I improve with therapy not being as clever or skillful as other people will always cause me problems in my life.				
78	Someone close to me doesn't believe that therapy can help.				
79	The appointment times are not convenient				
80	If I get better this will cause financial problems for someone close to me.				



		D E M A N D S	L I A B I L I T I E S	E X P O U T C O M E	
81	My problems have gone away.				
82	Someone close thinks less of me because I have been referred to a therapist.				
83	I worry about who will find out about what is said in therapy.				
84	Often I am not well enough to attend my appointment.				
85	I cannot see the point of therapy (e.g., it is irrelevant to my problems).				
86	I worry about what will happen to me if I get better.				
87	My family/friends do not support me attending because it interferes with their needs.				
88	I need "proper help" with my problems and not just talking.				
89	The therapist is over-critical of me.				
90	When the weather is bad I find it hard to attend appointments.				
91	I believe I should sort my problems out myself.				
92	I want to feel good about myself but this is difficult if I am attending therapy.				
93	I want people to think of me as normal but this is unlikely if I am attending therapy.				
94	I like enjoying the company of people I know but this is difficult if I am attending therapy.				
95	Someone close is critical of me attending therapy because they think it looks bad to other people.				
96	People I work with expect me to work just as hard even though I am not well.				
97	I believe that I just don't get the breaks- there is no reason to think that therapy will really help me.				
98	Even if therapy were successful someone close to me would still not believe it is possible to change yourself.				
99	After therapy I will still be left with the real problem of not having a good close relationship.				
100	I can't see me putting up with the lack of consideration shown by the service for very long.				



		D E M A N D S	L I A B I L I T I E S	E X P O U T C O M E	
	CATALAN DON  EXERCISE 2 Please ensure you have fully understood the construct and domain definitions before proceeding. Allocate each item to one (and only one) domain by placing a tick in the appropriate box alongside:  Achieving therapy appointments is interfering with my ability to enjoy life.				
101	Someone close to me expects too much from me emotionally at this time.				
102	People I socialise with expect too much from me at this time.				
103	Someone close to me doesn't believe that I am capable of changing myself.				
104	It is difficult to find the space or privacy where I live to do the things my therapist wants me to do.				
105	I can only see things getting worse not better for me.				
106	I worry that someone close will expect too much from me emotionally if I improve as a result of therapy.				
107	Even if I improve with therapy I will still be left with the real problem of the state of my body.				
108	Someone close to me expects too much from me financially at this time.				
109	Even if I improve with therapy it is unlikely that I will get any real satisfaction from my life in the future.				
110	The type of therapy / treatment on offer is not appropriate for my problems.				
111	Even if I improve with therapy I will always be ashamed of not having coped without help.				
112	If I get better this will cause practical problems for someone close to me				
113	The therapist does not really believe that my life will improve as a result of therapy.				
114	The therapist does not really believe that I am capable of changing myself.				



		P E R S O N A L	F A M I L Y / F R	S O C I A L / E N	S E R V I C E
	CATA114DOM  EXERCISE 2 Please ensure you have fully understood the construct and domain definitions before proceeding. Allocate each item to one (and only one) domain by placing a tick in the appropriate box alongside.				
1	Attending therapy appointments interferes with my ability to enjoy life.				
2	I have difficulty looking after my family properly and attending appointments.				
3	I dislike confronting painful emotions in therapy.				
4	It is hard getting around the hospital site.				
5	Wherever I go I always I find it difficult to say an appointment time is not convenient.				
6	Someone close to me worries about what I say to the Therapist.				
7	It might cause problems if my employer finds out about me seeing a Therapist				
8	I worry what the therapist really thinks about me.				
9	It is unpleasant being surrounded by lots of people in the waiting room.				
10	I have too many appointments with health professionals.				
11	I have too many other appointments to keep (e.g. DSS, Job Centre etc.).				
12	I often have difficulty remembering to keep appointments.				
13	Someone close to me is critical because I often feel worse after seeing the Therapist.				
14	I believe there is nothing I can do to make my life better no matter what I do.				
15	After therapy I will still be left with the real problem of not having enough money.				
16	After therapy I will still be left with the real problem of the neighbourhood in which I live.				
17	I am concerned about the gender of the person I am expected to see.				
18	I worry about what therapy is doing to me.				
19	I have problems with childcare (or care of a dependent adult) when trying to keep appointments.				
20	The department staff are unhelpful.				



		P E R S O N A L	F A M I L Y / F R	S O C I A L / E N	S E R V I C E
21	I feel less able to help myself since being referred to see a therapist.				
22	I worry about losing the benefits I receive if I complete therapy and improve.				
23	Even if therapy were successful someone close would always think of me as 'mental' because I had seen a therapist.				
24	The therapists does not really listen to what I say.				
25	Someone close to me worries about what happens with the Therapist.				
26	Wherever I go if I miss an appointment I find it hard to make a new one.				
27	I feel uncomfortable with the Therapist.				
28	It costs me money at work (or at home ) when I attend appointments.				
29	I resent having to continually repeat my story.				
30	I am concerned about my safety in the department waiting room.				
31	I always feel humiliated when talking about myself.				
32	I need emotional support at this time but my family / friends do not understand.				
33	It is difficult to understand what the therapist is talking about.				
34	I don't really expect my life to improve very much even if therapy is successful.				
35	I worry family/friends will expect me to do too much if therapy is successful.				
36	Even if therapy were successful neighbours would always think of me as 'mental' if they knew I saw a therapist.				
37	I have problems with transport when getting to appointments (e.g. cost, hassles, etc.).				
38	After therapy I will still be left with the real problem of having an awful job or of having to do awful things in order to get by.				
39	Doing the things my therapist wants me to do interferes with the things that I enjoy doing.				
40	I dislike talking about embarrassing things to the therapist				



		P E R S O N A L	F A M I L Y / F R	S O C I A L / E N	S E R V I C E
41	Therapy seems to go nowhere (e.g., it is too long and too uncertain, etc.).				
42	I worry about losing the financial support I get from family or friends if I improve as a result of therapy.				
43	Even if I improve, after therapy I will still have a boring life.				
44	The therapist looks down on me because I'm a patient.				
45	My workmates/friends look down on people who go to see a therapist.				
46	Another health professional I see is critical of me attending therapy.				
47	I worry that I will be expected to get a job if I improve.				
48	Previous therapy has not worked for me.				
49	Even if therapy were successful, if they knew, people I socialise with would always think of me as 'mental'.				
50	I worry what my child's school may think about me seeing a Therapist.				
51	When seeing the Therapist I am fearful of losing control or "going mad".				
52	I have physical problems that make it hard for me to attend appointments.				
53	I have so many things to do with the family or other people close to me that it is hard to find the time to do what the therapist wants me to do.				
54	I have problems taking time off work to attend appointments.				
55	I am concerned about having feelings (eg, affection, hurt, anger, and embarrassment) towards the Therapist that I find hard to cope with.				
56	I need someone to help me during sessions, e.g. support, a language interpreter, etc.				
57	Someone close to me resents me having someone else to talk to.				
58	I am concerned about what social services (or some other agency) will think if they find out that I have been referred to see a therapist.				
59	The therapist does not really understand my problems.				
60	Even if I improve with therapy, I can't see me ever being happy with the way I am.				



		P E R S O N A L	F A M I L Y / F R	S O C I A L / E N	S E R V I C E
61	After therapy I will have more emotional problems in my close relationships than I have now.				
62	After therapy I will still be left with the real problem of poor housing.				
63	I feel ashamed of having to see a Therapist.				
64	Someone close thinks I should be able to overcome this problem without therapy.				
65	If I were to bump into a neighbour in the department /clinic it could cause problems for me in my neighbourhood.				
66	The therapists does not really care about me as an individual.				
67	I worry that I will be expected to stop my medication if I improve.				
68	I have doubts about the Therapist's ability to help me.				
69	I need assistance to attend appointments but family or friends do not have the time to help.				
70	I have problems with reading and writing .				
71	Attending therapy appointments gets in the way of me doing the things that I want to do.				
72	I feel less able to cope with the thought of work since I was sent to see a therapist.				
73	I did not seek the referral but was "just sent" for therapy.				
74	In my social position I will never have a worthwhile job or something worthwhile to do with my life.				
75	People around where I live think that therapy is a waste of time.				
76	My family/friends are critical of me looking for help because it interferes with their needs.				
77	Even if I improve with therapy not being as clever or skillful as other people will always cause me problems in my life.				
78	Someone close to me doesn't believe that therapy can help.				
79	The appointment times are not convenient				
80	If I get better this will cause financial problems for someone close to me.				



		P E R S O N A L	F A M I L Y / F R	S O C I A L / F R E N	S E R V I C E
81	My problems have gone away.				
82	Someone close thinks less of me because I have been referred to a therapist.				
83	I worry about who will find out about what is said in therapy.				
84	Often I am not well enough to attend my appointment.				
85	I cannot see the point of therapy (e.g., it is irrelevant to my problems).				
86	I worry about what will happen to me if I get better.				
87	My family/friends do not support me attending because it interferes with their needs.				
88	I need "proper help" with my problems and not just talking.				
89	The therapist is over-critical of me.				
90	When the weather is bad I find it hard to attend appointments.				
91	I believe I should sort my problems out myself.				
92	I want to feel good about myself but this is difficult if I am attending therapy.				
93	I want people to think of me as normal but this is unlikely if I am attending therapy.				
94	I like enjoying the company of people I know but this is difficult if I am attending therapy.				
95	Someone close is critical of me attending therapy because they think it looks bad to other people.				
96	People I work with expect me to work just as hard even though I am not well.				
97	I believe that I just don't get the breaks- there is no reason to think that therapy will really help me.				
98	Even if therapy were successful someone close to me would still not believe it is possible to change yourself.				
99	After therapy I will still be left with the real problem of not having a good close relationship.				
100	I can't see me putting up with the lack of consideration shown by the service for very long.				



		P E R S O N A L	F A M I L Y / F R	S O C I A L / E N	S E R V I C E
101	Someone close to me expects too much from me emotionally at this time.				
102	People I socialise with expect too much from me at this time.				
103	Someone close to me doesn't believe that I am capable of changing myself.				
104	It is difficult to find the space or privacy where I live to do the things my therapist wants me to do.				
105	I can only see things getting worse not better for me.				
106	I worry that someone close will expect too much from me emotionally if I improve as a result of therapy.				
107	Even if I improve with therapy I will still be left with the real problem of the state of my body.				
108	Someone close to me expects too much from me financially at this time.				
109	Even if I improve with therapy it is unlikely that I will get any real satisfaction from my life in the future.				
110	The type of therapy / treatment on offer is not appropriate for my problems.				
111	Even if I improve with therapy I will always be ashamed of not having coped without help.				
112	If I get better this will cause practical problems for someone close to me				
113	The therapist does not really believe that my life will improve as a result of therapy.				
114	The therapist does not really believe that I am capable of changing myself.				

**APPENDIX D – Item selection CATA 72**

This appendix contains information on the items selected for inclusion into CATA 72.

Table 1 Item distribution sub-construct x domain.

Table 2 Questionnaire CATA 72.

SUB-CONSTRUCTS	DOMAINS				
	Individual	Family/Friends	Social/Community	Self	
Domains	1 EMB	2 PR	3 TR	4 TR	
	18 BV	16 PR	20 TR	21 TR	
	42 SK	14 PR	8 TR	5 TR	
	47 EMB	60 BV	35 TR	15 TR	
	58 BV	63 NM	57 TR	19 TR	
	49 SC	28 EC	64 AG	29 TR	
	4 SK	5 EM	6 EM	14 TR	
	10 EMB	36 EM	33 BV	17 TR	
	11 BV	45 PR	31 BV	22 TR	
	21 SC	51 BV	43 NE	38 TR	
Substrates	46 SK	56 PR	49 BV	52 TR	
	54 EMB	65 BV	66 HOU	69 BV	
	23 BV	25 PR	12 SB	30 TR	
	32 EMB	31 EC	13 NE	34 TR	
	39 EMB	48 EM	24 SB	48 TR	
	50 SK	53 EC	26 BV	62 TR	
	55 SC	61 EM	28 W	71 TR	
	67 EMB	70 PR	41 BV	72 TR	
	Expected Outcomes				



**TABLE 1 - CATA 72 QUESTIONNAIRE ITEM DISTRIBUTION X SUB-CONSTRUCTS AND DOMAINS**

		<b>DOMAINS</b>			
		<b>Individual</b>	<b>Family/Friends</b>	<b>Social/Environment</b>	<b>Service systems</b>
<b>SUB CONSTRUCTS</b>	<b>Demands</b>	1 EMB	2 PR	9 SA	3 TPY
		18 BV	16 PR	20 SB	7 ACC
		42 SC	34 PR	27 TR	8 ACC
		47 EMB	60 BV	35 W	15 TPY
		58 BV	63 EM	57 TR	19 TPST
		59 SC	68 EC	64 AG	29 TPY
	<b>Liabilities</b>	4 SK	5 EM	6 EMP	14 TPST
		10 EMB	36 EM	33 BV	17 ACC
		11 BV	45 PR	37 BV	22 TPST
21 SC		51 BV	43 NE	38 TPST	
46 SK		56 PR	49 BV	52 ACC	
	54 EMB	65 BV	66 HOU	69 BV	
<b>Expected Outcome</b>	23 BV	25 PR	12 SB	30 TPY	
	32 EMB	31 EC	13 NE	44 TPST	
	39 EMB	40 EM	24 SB	48 TPY	
	50 SK	53 EC	26 BV	62 ACC	
	55 SC	61 EM	28 W	71 BV	
	67 EMB	70 PR	41 HOU	72 BV	



TABLE 2 - CATA72 QUESTIONNAIRE

TABLE 2 - CATA72 QUESTIONNAIRE		Not at all	Only a little	Somewhat	A great deal	Completely
	Please read the statements below in turn and decide how much each one applies to you. When you have decided put a mark in one of the boxes next to the statement that best describes your answer. Please answer the items in order and do not leave any out. If you are not certain mark one of the boxes anyway.					
1.	Attending therapy appointments interferes with my ability to enjoy life.					
2.	I have difficulty looking after my family properly and attending appointments.					
3.	I dislike confronting painful emotions in therapy.					
4.	Wherever I go I always find it difficult to say an appointment time is not convenient.					
5.	Someone close to me worries about what I say to the Therapist.					
6.	It might cause problems if my employer finds out about me seeing a Therapist					
7.	It is unpleasant being surrounded by lots of people in the waiting room.					
8.	I have too many appointments with health professionals.					
9.	I have too many other appointments to keep (e.g. DSS, Job Centre etc.).					
10.	I often have difficulty remembering to keep appointments.					
11.	I believe there is nothing I can do to make my life better no matter what I do.					
12.	After therapy I will still be left with the real problem of not having enough money.					
13.	After therapy I will still be left with the real problem of the neighbourhood in which I live.					
14.	I am concerned about the gender of the person I am expected to see.					
15.	I worry about what therapy is doing to me.					
16.	I have problems with childcare (or care of a dependent adult) when trying to keep appointments.					
17.	The department staff are unhelpful.					
18.	I feel less able to help myself since being referred to see a therapist.					
19.	I feel uncomfortable with the Therapist.					
20.	It costs me money at work (or at home ) when I attend appointments.					
21.	I always feel humiliated when talking about myself.					
22.	It is difficult to understand what the therapist is talking about.					
23.	I don't really expect my life to improve very much even if therapy is successful.					
24.	I worry about losing the benefits I receive if I complete therapy and improve.					



<b>TABLE 2 - CATA72 QUESTIONNAIRE</b>						
	Please read the statements below in turn and decide how much each one applies to you. When you have decided put a mark in one of the boxes next to the statement that best describes your answer. Please answer the items in order and do not leave any out. If you are not certain mark one of the boxes anyway.	Not at all	Only a little	Somewhat	A great deal	Completely
25.	I worry family/friends will expect me to do too much if therapy is successful.					
26.	Even if therapy were successful neighbours would always think of me as 'mental' if they knew I saw a therapist.					
27.	I have problems with transport when getting to appointments (e.g. cost, hassles, etc.).					
28.	After therapy I will still be left with the real problem of having an awful job or of having to do awful things in order to get by.					
29.	I dislike talking about embarrassing things to the therapist					
30.	Therapy seems to go nowhere (e.g., it is too long and too uncertain, etc.).					
31.	I worry about losing the financial support I get from family or friends if I improve as a result of therapy.					
32.	Even if I improve, after therapy I will still have a boring life.					
33.	My workmates/friends look down on people who go to see a therapist.					
34.	I have so many things to do with the family or other people close to me that it is hard to find the time to do what the therapist wants me to do.					
35.	I have problems taking time off work to attend appointments.					
36.	Someone close to me resents me having someone else to talk to.					
37.	I am concerned about what social services (or some other agency) will think if they find out that I have been referred to see a therapist.					
38.	The therapist does not really understand my problems.					
39.	Even if I improve with therapy, I can't see me ever being happy with the way I am.					
40.	After therapy I will have more emotional problems in my close relationships than I have now.					
41.	After therapy I will still be left with the real problem of poor housing.					
42.	I feel ashamed of having to see a Therapist.					
43.	If I were to bump into a neighbour in the department /clinic it could cause problems for me in my neighbourhood.					
44.	I have doubts about the Therapist's ability to help me.					
45.	I need assistance to attend appointments but family or friends do not have the time to help.					
46.	I have problems with reading and writing.					
47.	Attending therapy appointments gets in the way of me doing the things that I want to do.					
48.	I worry that I will be expected to stop my medication if I improve.					



<b>TABLE 2 - CATA72 QUESTIONNAIRE</b>						
	Please read the statements below in turn and decide how much each one applies to you. When you have decided put a mark in one of the boxes next to the statement that best describes your answer. Please answer the items in order and do not leave any out. If you are not certain mark one of the boxes anyway.	Not at all	Only a little	Somewhat	A great deal	Completely
49.	People around where I live think that therapy is a waste of time.					
50.	Even if I improve with therapy not being as clever or skillful as other people will always cause me problems in my life.					
51.	Someone close to me doesn't believe that therapy can help.					
52.	The appointment times are not convenient					
53.	If I get better this will cause financial problems for someone close to me.					
54.	Often I am not well enough to attend my appointment.					
55.	I worry about what will happen to me if I get better.					
56.	My family/friends do not support me attending because it interferes with their needs.					
57.	When the weather is bad I find it hard to attend appointments.					
58.	I want to feel good about myself but this is difficult if I am attending therapy.					
59.	I like enjoying the company of people I know but this is difficult if I am attending therapy.					
60.	Someone close is critical of me attending therapy because they think it looks bad to other people.					
61.	After therapy I will still be left with the real problem of not having a good close relationship.					
62.	I can't see me putting up with the lack of consideration shown by the service for very long.					
63.	Someone close to me expects too much from me emotionally at this time.					
64.	People I socialise with expect too much from me at this time.					
65.	Someone close to me doesn't believe that I am capable of changing myself.					
66.	It is difficult to find the space or privacy where I live to do the things my therapist wants me to do.					
67.	Even if I improve with therapy I will still be left with the real problem of the state of my body.					
68.	Someone close to me expects too much from me financially at this time.					
69.	The type of therapy / treatment on offer is not appropriate for my problems.					
70.	If I get better this will cause practical problems for someone close to me					
71.	The therapist does not really believe that my life will improve as a result of therapy.					
72.	The therapist does not really believe that I am capable of changing myself.					



## APPENDIX E – Statistical calculations development of CATA 32

This appendix contains the descriptive and statistical information used in the process of selecting items to be retained and included in the final version of the questionnaire

CATA 32.

Table 1	CATA 72 Demand sub-scale items
Table 2	CATA 72 Liability sub-scale items
Table 3	CATA 72 Expected outcome sub-scale items
Table 4	CATA 72 Item response profile
Table 5	Alpha – Expected outcome sub-scale
Table 6	Inter item correlation - Expected outcome sub-scale
Table 7	Alpha – Demand sub-scale
Table 8	Inter item correlation - Demand sub-scale
Table 9	Alpha – Liability sub-scale
Table 10	Inter item correlation - Liability sub-scale
Table 11	Correlation Expected outcome items x sub-scale totals
Table 12	Correlation Demand items x sub-scale totals
Table 13	Correlation Liabilities items x sub-scale totals
Table 14	Alpha – Liabilities 8 item sub-scale
Table 15	Inter item correlation - Liabilities 8 item sub-scale
Table 16	Correlation Liabilities 8 items x sub-scale totals
Table 17	Liabilities sub-scale 8 items
Table 18	Alpha – Expected outcome 8 item sub-scale
Table 19	Inter item correlation – Expected outcome 8 item sub-scale

Table 20	Correlation Expected outcome 8 items x sub-scale totals
Table 21	Expected outcome sub-scale 8 items
Table 22	Alpha – Demand 8-item sub-scale
Table 23	Inter item correlation - Demand 8 item sub-scale
Table 24	Correlation Demand 8 items x sub-scale totals
Table 25	Demand sub-scale 8 items
Table 26	Item correlation with scale total (CATA 24)
Table 27	Inter-correlation sub-scale totals (CATA 24)
Table 28	Confirmatory factor analysis (CATA 24)
Table 29	CATA 24 item distribution
Table 30	Alpha - Efficacy sub-scale
Table 31	Inter item correlation Efficacy sub-scale
Table 32	Correlation Efficacy 7 items x sub-scale totals
Table 33	Efficacy sub-scale 7(8) items
Table 34	Inter correlation sub-scales (CATA 31)
Table 35	Item correlation with scale total (CATA31)
Table 36	Confirmatory factor analysis (CATA 31)
Table 37	CATA 32 item distribution
Table 38	CATA 32 Questionnaire



TABLE 1 – CATA 72 DEMAND SUB-SCALE

1. Attending therapy appointments interferes with my ability to enjoy life.
2. I have difficulty looking after my family properly and attending appointments.
3. I dislike confronting painful emotions in therapy.
7. It is unpleasant being surrounded by lots of people in the waiting room.
8. I have too many appointments with health professionals.
9. I have too many other appointments to keep (e.g. DSS, Job Centre etc.).
15. I worry about what therapy is doing to me.
16. I have problems with child-care (or care of a dependent adult) when trying to keep appointments.
18. I feel less able to help myself since being referred to see a therapist.
19. I feel uncomfortable with the Therapist.
20. It costs me money at work (or at home) when I attend appointments.
27. I have problems with transport when getting to appointments (e.g. cost, hassles, etc.).
29. I dislike talking about embarrassing things to the therapist
34. I have so many things to do with the family or other people close to me that it is hard to find the time to do what the therapist wants me to do.
35. I have problems taking time off work to attend appointments.
42. I feel ashamed of having to see a Therapist.
47. Attending therapy appointments gets in the way of me doing the things that I want to do.
57. When the weather is bad I find it hard to attend appointments.
58. I want to feel good about myself but this is difficult if I am attending therapy.
59. I like enjoying the company of people I know but this is difficult if I am attending therapy.
60. Someone close is critical of me attending therapy because they think it looks bad to other people.
63. Someone close to me expects too much from me emotionally at this time.
64. People I socialise with expect too much from me at this time.
68. Someone close to me expects too much from me financially at this time.



TABLE 2 – CATA 72 LIABILITIES SUB-SCALE

4. Wherever I go I always I find it difficult to say an appointment time is not convenient.
5. Someone close to me worries about what I say to the Therapist.
6. It might cause problems if my employer finds out about me seeing a Therapist
10. I often have difficulty remembering to keep appointments.
11. I believe there is nothing I can do to make my life better no matter what I do.
14. I am concerned about the gender of the person I am expected to see.
17. The department staff are unhelpful.
21. I always feel humiliated when talking about myself.
22. It is difficult to understand what the therapist is talking about.
33. My workmates/friends look down on people who go to see a therapist.
36. Someone close to me resents me having someone else to talk to.
37. I am concerned about what social services (or some other agency) will think if they find out that I have been referred to see a therapist.
38. The therapist does not really understand my problems.
43. If I were to bump into a neighbour in the department /clinic it could cause problems for me in my neighbourhood.
45. I need assistance to attend appointments but family or friends do not have the time to help.
46. I have problems with reading and writing.
49. People around where I live think that therapy is a waste of time.
51. Someone close to me doesn't believe that therapy can help.
52. The appointment times are not convenient
54. Often I am not well enough to attend my appointment.
56. My family/friends do not support me attending because it interferes with their needs.
65. Someone close to me doesn't believe that I am capable of changing myself.
66. It is difficult to find the space or privacy where I live to do the things my therapist wants me to do.
69. The type of therapy / treatment on offer is not appropriate for my problems.



TABLE 3 – CATA 72 EXPECTED OUTCOME SUB-SCALE

12. After therapy I will still be left with the real problem of not having enough money.
13. After therapy I will still be left with the real problem of the neighbourhood in which I live.
23. I don't really expect my life to improve very much even if therapy is successful.
24. I worry about losing the benefits I receive if I complete therapy and improve.
25. I worry family/friends will expect me to do too much if therapy is successful.
26. Even if therapy were successful neighbours would always think of me as 'mental' if they knew I saw a therapist.
28. After therapy I will still be left with the real problem of having an awful job or of having to do awful things in order to get by.
30. Therapy seems to go nowhere (e.g., it is too long and too uncertain, etc.).
31. I worry about losing the financial support I get from family or friends if I improve as a result of therapy.
32. Even if I improve, after therapy I will still have a boring life.
39. Even if I improve with therapy, I can't see me ever being happy with the way I am.
40. After therapy I will have more emotional problems in my close relationships than I have now.
41. After therapy I will still be left with the real problem of poor housing.
44. I have doubts about the Therapist's ability to help me.
48. I worry that I will be expected to stop my medication if I improve.
50. Even if I improve with therapy not being as clever or skillful as other people will always cause me problems in my life.
53. If I get better this will cause financial problems for someone close to me.
55. I worry about what will happen to me if I get better.
61. After therapy I will still be left with the real problem of not having a good close relationship.
62. I can't see me putting up with the lack of consideration shown by the service for very long.
67. Even if I improve with therapy I will still be left with the real problem of the state of my body.
70. If I get better this will cause practical problems for someone close to me
71. The therapist does not really believe that my life will improve as a result of therapy.
72. The therapist does not really believe that I am capable of changing myself.



TABLE 4 - ITEM RESPONSE PROFILE

	Valid N	Mean	Minimum	Maximum	Range	Variance
CATA_1	109	.357798	0.00	4.000000	4.000000	.602277
CATA_2	109	.366972	0.00	4.000000	4.000000	.604825
CATA_3	109	1.834862	0.00	4.000000	4.000000	1.43544
CATA_4	109	.577982	0.00	4.000000	4.000000	.746177
CATA_5	109	.412844	0.00	4.000000	4.000000	.707611
CATA_6	109	.403670	0.00	4.000000	4.000000	.835542
CATA_7	109	1.366972	0.00	4.000000	4.000000	1.752973
CATA_8	109	.431193	0.00	4.000000	4.000000	.599388
CATA_9	109	.247706	0.00	3.000000	3.000000	.336222
CATA_10	109	.871560	0.00	4.000000	4.000000	.964832
CATA_11	109	1.275229	0.00	4.000000	4.000000	1.367992
CATA_12	109	.880734	0.00	4.000000	4.000000	1.476385
CATA_13	109	.504587	0.00	4.000000	4.000000	.863405
CATA_14	109	.266055	0.00	3.000000	3.000000	.437819
CATA_15	109	.422018	0.00	4.000000	4.000000	.635066
CATA_16	109	.220183	0.00	4.000000	4.000000	.414033
CATA_17	109	.220183	0.00	4.000000	4.000000	.673293
CATA_18	109	.220183	0.00	4.000000	4.000000	.414033
CATA_19	109	.394495	0.00	4.000000	4.000000	.611451
CATA_20	109	.311927	0.00	3.000000	3.000000	.420319
CATA_21	109	1.146789	0.00	4.000000	4.000000	1.441216
CATA_22	109	.477064	0.00	4.000000	4.000000	.585117
CATA_23	109	.981651	0.00	4.000000	4.000000	1.351512
CATA_24	109	.440367	0.00	4.000000	4.000000	.804281
CATA_25	109	.834862	0.00	4.000000	4.000000	1.139144
CATA_26	109	1.064220	0.00	4.000000	4.000000	1.338430
CATA_27	109	.449541	0.00	4.000000	4.000000	.694190
CATA_28	109	.899083	0.00	4.000000	4.000000	1.332314
CATA_29	109	1.183486	0.00	4.000000	4.000000	1.354910
CATA_30	109	.504587	0.00	3.000000	3.000000	.659701
CATA_31	109	.229358	0.00	4.000000	4.000000	.363575
CATA_32	109	.935780	0.00	4.000000	4.000000	1.690282
CATA_33	109	.834862	0.00	4.000000	4.000000	1.453959
CATA_34	109	.449541	0.00	4.000000	4.000000	.638634
CATA_35	109	.348624	0.00	4.000000	4.000000	.840299
CATA_36	109	.302752	0.00	4.000000	4.000000	.453789
CATA_37	109	.486239	0.00	4.000000	4.000000	.844716
CATA_38	109	.458716	0.00	4.000000	4.000000	.713558
CATA_39	109	1.275229	0.00	4.000000	4.000000	1.812436
CATA_40	109	.477064	0.00	4.000000	4.000000	.751784
CATA_41	109	.275229	0.00	4.000000	4.000000	.627251
CATA_42	109	.880734	0.00	4.000000	4.000000	1.587496
CATA_43	109	.614679	0.00	4.000000	4.000000	1.18348
CATA_44	109	.522936	0.00	3.000000	3.000000	.696228
CATA_45	109	.293578	0.00	4.000000	4.000000	.542644
CATA_46	109	.211009	0.00	3.000000	3.000000	.390248
CATA_47	109	.211009	0.00	4.000000	4.000000	.464322
CATA_48	109	.513761	0.00	4.000000	4.000000	1.085457
CATA_49	109	.477064	0.00	3.000000	3.000000	.677710
CATA_50	109	.587156	0.00	4.000000	4.000000	1.022426
CATA_51	109	.660550	0.00	4.000000	4.000000	1.263337
CATA_52	109	.247706	0.00	4.000000	4.000000	.447333
CATA_53	109	.128440	0.00	3.000000	3.000000	.224091
CATA_54	109	.412844	0.00	4.000000	4.000000	.522426
CATA_55	109	.697248	0.00	4.000000	4.000000	1.176011
CATA_56	109	.201835	0.00	3.000000	3.000000	.366293



CATA_57	109	.431193	0.00	4.000000	4.000000	.821611
CATA_58	109	.449541	0.00	3.000000	3.000000	.675671
CATA_59	109	.220183	0.00	3.000000	3.000000	.339959
CATA_60	109	.366972	0.00	4.000000	4.000000	.678899
CATA_61	109	.761468	0.00	4.000000	4.000000	1.405539
CATA_62	109	.174312	0.00	2.000000	2.000000	.219334
CATA_63	109	.844037	0.00	4.000000	4.000000	1.318043
CATA_64	109	.853211	0.00	4.000000	4.000000	1.348624
CATA_65	109	.743119	0.00	4.000000	4.000000	1.174142
CATA_66	109	.596330	0.00	4.000000	4.000000	1.039246
CATA_67	109	.972477	0.00	4.000000	4.000000	1.915902
CATA_68	109	.238532	0.00	3.000000	3.000000	.424057
CATA_69	109	.192661	0.00	4.000000	4.000000	.379205
CATA_70	109	.119266	0.00	4.000000	4.000000	.309718
CATA_71	109	.211009	0.00	3.000000	3.000000	.371730
CATA_72	109	.238532	0.00	3.000000	3.000000	.331464

TABLE 5 – ALPHA EXPECTED OUTCOME SUB-SCALE ( WEAK RESPONSE ITEMS DELETED)

Summary for scale: Mean=10.2202 Std.Dv.=8.62528 Valid N:109  
 Cronbach alpha: .858633 Standardized alpha: .861490  
 Average inter-item corr.: .349900

	Mean if deleted	Var. if deleted	StDv. if deleted	Itm-Totl Correl.	Alpha if deleted
CATA_12	9.339450	66.02238	8.125416	.316853	.862878
CATA_13	9.238532	59.96145	7.743478	.692599	.836640
CATA_25	9.385321	65.06254	8.066135	.438870	.853731
CATA_26	9.155963	63.81971	7.988724	.465619	.852338
CATA_28	9.321101	62.89689	7.930756	.521068	.848598
CATA_30	9.715596	64.60719	8.037860	.650316	.843907
CATA_32	9.284404	58.00169	7.615884	.712084	.834107
CATA_39	8.944954	57.17128	7.561169	.727650	.832574
CATA_44	9.697248	67.16522	8.195439	.430296	.854253
CATA_50	9.633027	64.41579	8.025945	.512752	.849283
CATA_61	9.458715	61.93637	7.869966	.559037	.845988
CATA_67	9.247706	61.76433	7.859028	.464084	.854287

TABLE 6 - INTER-ITEM CORRELATION EXPECTED OUTCOME SUB-SCALE

	CATA_12	13	25	26	28	30	32	39	44	50
CATA_12	1.00	.25	.21	.09	.18	.27	.37	.20	-.04	.15
CATA_13	.25	1.00	.25	.33	.36	.56	.65	.70	.41	.41
CATA_25	.21	.25	1.00	.44	.22	.32	.41	.32	.25	.25
CATA_26	.09	.33	.44	1.00	.34	.39	.41	.26	.19	.46
CATA_28	.18	.36	.22	.34	1.00	.53	.40	.45	.29	.38
CATA_30	.27	.56	.32	.39	.53	1.00	.43	.48	.54	.21
CATA_32	.37	.65	.41	.41	.40	.43	1.00	.63	.19	.48
CATA_39	.20	.70	.32	.26	.45	.48	.63	1.00	.48	.44
CATA_44	-.04	.41	.25	.19	.29	.54	.19	.48	1.00	.14
CATA_50	.15	.41	.25	.46	.38	.21	.48	.44	.14	1.00
CATA_61	.40	.51	.10	.31	.27	.44	.42	.44	.36	.35
CATA_67	.14	.29	.32	.15	.28	.35	.38	.53	.29	.24



TABLE 7 – ALPHA DEMAND SUB-SCALE (WEAK RESPONSE ITEMS DELETED)

Summary for scale: Mean=10.3761 Std.Dv.=7.18382 Valid N:109  
 Cronbach alpha: .774994 Standardized alpha: .785324  
 Average inter-item corr.: .200544

CATA_7	Mean if deleted	Var. if deleted	StDv. if deleted	Itm-Totl Correl.	Alpha if deleted
CATA_2	10.01835	44.93544	6.703391	.540863	.752171
CATA_3	8.54128	43.33086	6.582618	.406389	.760662
CATA_7	9.00917	44.50451	6.671170	.278227	.776615
CATA_8	9.94495	46.71257	6.834659	.363322	.764460
CATA_18	10.15596	48.20504	6.942985	.283169	.770031
CATA_19	9.98165	46.12810	6.791767	.416141	.760780
CATA_20	10.06422	47.87661	6.919292	.318083	.768066
CATA_27	9.92661	45.92122	6.776520	.402546	.761278
CATA_29	9.19266	41.27481	6.424547	.572048	.742826
CATA_34	9.92661	46.87534	6.846557	.332855	.766438
CATA_42	9.49541	42.45182	6.515506	.434986	.757935
CATA_57	9.94495	45.39147	6.737319	.405359	.760589
CATA_60	10.00917	47.36689	6.882360	.274080	.770567
CATA_63	9.53211	45.55172	6.749201	.277204	.773331
CATA_64	9.52294	42.35957	6.508423	.494313	.751223

TABLE 8 – INTER ITEM CORRELATION DEMAND SUB-SCALE

CATA_2	_3	7	8	18	19	20	27	29	34	
CATA_2	1.00	.42	.29	.42	.29	.22	.18	.14	.33	.13
CATA_3	.42	1.00	.39	.22	.04	.22	.13	.19	.52	.17
CATA_7	.29	.39	1.00	.10	.06	.10	-.02	.06	.30	-.03
CATA_8	.42	.22	.10	1.00	.18	.16	.14	.30	.14	.15
CATA_18	.29	.04	.06	.18	1.00	.62	.17	.16	.18	-.07
CATA_19	.22	.22	.10	.16	.62	1.00	.38	.31	.39	.11
CATA_20	.18	.13	-.02	.14	.17	.38	1.00	.48	.17	.39
CATA_27	.14	.19	.06	.30	.16	.31	.48	1.00	.28	.33
CATA_29	.33	.52	.30	.14	.18	.39	.17	.28	1.00	.24
CATA_34	.13	.17	-.03	.15	-.07	.11	.39	.33	.24	1.00
CATA_42	.34	.20	.24	.03	.15	.19	.07	.12	.41	.13
CATA_57	.50	.13	.09	.26	.17	.14	.19	.22	.28	.20
CATA_60	.10	-.18	.02	.27	.04	-.01	.18	.26	-.04	.30
CATA_63	.02	.11	-.00	.14	.05	.04	-.05	.03	.18	.33
CATA_64	.32	.14	.18	.23	.17	.27	.15	.23	.36	.07



TABLE 10 BFI-5 ITEM CORRELATION LIABILITY SUB-SCALE

	CATA_4	CATA_5	CATA_10	CATA_11	CATA_21	CATA_22	CATA_33	CATA_37	CATA_38	CATA_43	CATA_51	CATA_54	CATA_65	CATA_66
CATA_2	.34	.50	.10	.02	.32									
CATA_3	.20	.13	-.18	.11	.14									
CATA_7	.24	.09	.02	-.00	.18									
CATA_8	.03	.26	.27	.14	.23									
CATA_18	.15	.17	.04	.05	.17									
CATA_19	.19	.14	-.01	.04	.27									
CATA_20	.07	.19	.18	-.05	.15									
CATA_27	.12	.22	.26	.03	.23									
CATA_29	.41	.28	-.04	.18	.36									
CATA_34	.13	.20	.30	.33	.07									
CATA_42	1.00	.27	.26	.20	.31									
CATA_57	.27	1.00	.17	.09	.24									
CATA_60	.26	.17	1.00	.36	.32									
CATA_63	.20	.09	.36	1.00	.41									
CATA_64	.31	.24	.32	.41	1.00									

TABLE 9 – ALPHA LIABILITY SUB-SCALE (WEAK RESPONSE ITEMS DELETED)

Summary for scale: Mean=9.56881 Std.Dv.=6.82230 Valid N:109  
 Cronbach alpha: .752813 Standardized alpha: .743518  
 Average inter-item corr.: .174533

	Mean if deleted	Var. if deleted	StDv. if deleted	Itm-Totl Correl.	Alpha if deleted
CATA_4	8.990826	42.26597	6.501228	.278309	.746538
CATA_5	9.155963	43.48944	6.594652	.174421	.755061
CATA_10	8.697248	40.74321	6.383040	.353923	.739711
CATA_11	8.293578	37.62023	6.133533	.500020	.722689
CATA_21	8.422018	36.81273	6.067349	.543149	.716913
CATA_22	9.091743	41.42278	6.436053	.419784	.735509
CATA_33	8.733945	38.03013	6.166858	.448949	.729003
CATA_37	9.082569	42.46107	6.516216	.236419	.750577
CATA_38	9.110092	42.06128	6.485466	.307023	.744067
CATA_43	8.954128	40.09881	6.332362	.353307	.740042
CATA_51	8.908257	38.59709	6.212656	.450882	.728906
CATA_54	9.155963	43.76466	6.615487	.192717	.752584
CATA_65	8.825688	39.46503	6.282120	.404998	.734275
CATA_66	8.972477	40.44878	6.359936	.359353	.739185

TABLE 10 INTER ITEM CORRELATION LIABILITY SUB-SCALE

	CATA_4	5	10	11	21	22	33	37	38	43
CATA_4	1.00	.11	.11	.18	.24	.34	.03	-.05	.14	.12
CATA_5	.11	1.00	.06	.19	.04	.05	-.03	.15	.06	-.01
CATA_10	.11	.06	1.00	.26	.28	.14	.19	.04	.17	.16
CATA_11	.18	.19	.26	1.00	.47	.28	.30	.09	.35	.14
CATA_21	.24	.04	.28	.47	1.00	.45	.40	.04	.18	.20
CATA_22	.34	.05	.14	.28	.45	1.00	.07	.10	.27	.06
CATA_33	.03	-.03	.19	.30	.40	.07	1.00	.30	.15	.52
CATA_37	-.05	.15	.04	.09	.04	.10	.30	1.00	.07	.30
CATA_38	.14	.06	.17	.35	.18	.27	.15	.07	1.00	.01
CATA_43	.12	-.01	.16	.14	.20	.06	.52	.30	.01	1.00
CATA_51	.30	.24	.18	.22	.26	.17	.39	.13	.26	.17
CATA_54	.16	-.13	.22	.08	.20	.09	-.03	.00	.14	.22
CATA_65	.03	.10	.22	.21	.28	.25	.23	.20	.08	.16
CATA_66	.13	.26	.17	.30	.28	.38	.07	.10	.09	.11

TABLE 11 CORRELATION DEMAND ITEMS X SUB-SCALE TOTALS

	CATA_51	54	65	66
CATA_4	.30	.16	.03	.13
CATA_5	.24	-.13	.10	.26
CATA_10	.18	.22	.22	.17
CATA_11	.22	.08	.21	.30
CATA_21	.26	.20	.28	.28
CATA_22	.17	.09	.25	.38
CATA_33	.39	-.03	.23	.07
CATA_37	.13	.00	.20	.10
CATA_38	.26	.14	.08	.09
CATA_43	.17	.22	.16	.11
CATA_51	1.00	.01	.35	.10
CATA_54	.01	1.00	.16	.12
CATA_65	.35	.16	1.00	.24
CATA_66	.10	.12	.24	1.00



TABLE 11 CORRELATION EXPECTED OUTCOME ITEMS X SUB-SCALE TOTALS

Correlations (catares.sta)  
 Marked correlations are significant at  $p < .05000$   
 N=109 (Casewise deletion of missing data)

TABLE 11 CORRELATION EXPECTED OUTCOME ITEMS X SUB-SCALE TOTALS

	NEWLIAB	NEWDEM	NEWEO
CATA_12	.18	.23	.44
CATA_13	.53	.52	.76
CATA_25	.37	.39	.54
CATA_26	.55	.45	.57
CATA_28	.37	.60	.62
CATA_30	.66	.69	.70
CATA_32	.46	.47	.78
CATA_39	.50	.50	.80
CATA_44	.47	.48	.51
CATA_50	.41	.43	.60
CATA_61	.40	.41	.65
CATA_67	.34	.37	.59

TABLE 12 CORRELATION DEMAND ITEMS X SUB-SCALE TOTALS

Correlations (catares.sta)  
 Marked correlations are significant at  $p < .05000$   
 N=109 (Casewise deletion of missing data)

	NEWLIAB	NEWDEM	NEWEO
CATA_2	.44	.62	.46
CATA_3	.34	.54	.30
CATA_7	.35	.44	.36
CATA_8	.26	.46	.25
CATA_18	.27	.36	.32
CATA_19	.36	.50	.26
CATA_20	.24	.40	.16
CATA_27	.35	.50	.31
CATA_29	.55	.68	.57
CATA_34	.43	.43	.17
CATA_42	.59	.57	.59
CATA_57	.42	.51	.44
CATA_60	.38	.38	.28
CATA_63	.39	.42	.30
CATA_64	.47	.61	.43

TABLE 13 CORRELATION LIABILITY ITEMS X SUB-SCALE TOTALS

Correlations (catares.sta)

Marked correlations are significant at  $p < .05000$

N=109 (Casewise deletion of missing data)

	NEWLIAB	NEWDEM	NEWEO
CATA_4	.39	.36	.27
CATA_5	.29	.19	.08
CATA_10	.48	.36	.21
CATA_11	.62	.54	.66
CATA_21	.66	.60	.50
CATA_22	.51	.43	.27
CATA_33	.58	.45	.47
CATA_37	.36	.22	.22
CATA_38	.42	.28	.35
CATA_43	.49	.30	.32
CATA_51	.58	.40	.28
CATA_54	.29	.28	.27
CATA_65	.53	.47	.33
CATA_66	.49	.48	.26

TABLE 14 ALPHA LIABILITIES 8 ITEM SUB-SCALE

Summary for scale: Mean=5.39450 Std.Dv.=4.21421 Valid N:109

Cronbach alpha: .653092 Standardized alpha: .648028

Average inter-item corr.: .190977

	Mean if deleted	Var. if deleted	StDv. if deleted	Itm-Totl Correl.	Alpha if deleted
CATA_4	4.816514	15.04890	3.879291	.271082	.639371
CATA_10	4.522936	14.19443	3.767549	.332039	.625436
CATA_21	4.247706	11.83772	3.440599	.526691	.564205
CATA_22	4.917431	14.88309	3.857861	.363214	.620987
CATA_33	4.559633	12.76021	3.572143	.396017	.608913
CATA_38	4.935780	15.19771	3.898424	.258080	.642053
CATA_43	4.779817	13.52950	3.678247	.363352	.617518
CATA_54	4.981651	15.66939	3.958458	.247482	.643745

TABLE 15 - INTER ITEM CORRELATION - LIABILITES 8 ITEM SUB-SCALE

	CATA_4	10	21	22	33	38	43	54
CATA_4	1.00	.11	.24	.34	.03	.14	.12	.16
CATA_10	.11	1.00	.28	.14	.19	.17	.16	.22
CATA_21	.24	.28	1.00	.45	.40	.18	.20	.20
CATA_22	.34	.14	.45	1.00	.07	.27	.06	.09
CATA_33	.03	.19	.40	.07	1.00	.15	.52	-.03
CATA_38	.14	.17	.18	.27	.15	1.00	.01	.14
CATA_43	.12	.16	.20	.06	.52	.01	1.00	.22
CATA_54	.16	.22	.20	.09	-.03	.14	.22	1.00



TABLE 16 – CORRELATION LIABILITIES 8 ITEMS X SUB-SCALE TOTALS

Correlations (catares.sta)

Marked correlations are significant at  $p < .05000$

N=109 (Casewise deletion of missing data)

	NEWDEM	NEWLIAB	NEWEO
CATA_4	.37	.46	.24
CATA_10	.34	.53	.14
CATA_21	.54	.72	.39
CATA_22	.39	.52	.18
CATA_33	.28	.62	.41
CATA_38	.23	.44	.33
CATA_43	.10	.58	.24
CATA_54	.29	.41	.22

TABLE 17 LABILITIES SUB-SCALE 8 ITEMS

4. Wherever I go I always I find it difficult to say an appointment time is not convenient.
10. I often have difficulty remembering to keep appointments.
21. I always feel humiliated when talking about myself.
22. It is difficult to understand what the therapist is talking about.
33. My workmates/friends look down on people who go to see a therapist.
38. The therapist does not really understand my problems.
43. If I were to bump into a neighbour in the department /clinic it could cause problems for me in my neighbourhood.
54. Often I am not well enough to attend my appointment.

TABLE 18 ALPHA EXPECTED OUTCOME 8 ITEM SUB-SCALE

Summary for scale: Mean=6.75229 Std.Dv.=6.11034 Valid N:109

Cronbach alpha: .796184 Standardized alpha: .795113

Average inter-item corr.: .332445

	Mean if deleted	Var. if deleted	StDv. if deleted	Itm-Totl Correl.	Alpha if deleted
CATA_12	5.871560	30.42387	5.515784	.382762	.792446
CATA_13	6.247706	31.50745	5.613150	.445974	.782827
CATA_25	5.917431	30.97484	5.565504	.413524	.786517
CATA_32	5.816514	26.20486	5.119069	.687879	.741632
CATA_39	5.477064	26.13938	5.112669	.661072	.745969
CATA_50	6.165138	30.66998	5.538048	.476373	.778339
CATA_61	5.990826	29.03661	5.388563	.516148	.771747
CATA_67	5.779817	28.22675	5.312885	.469163	.781317



TABLE 19 INTER ITEM CORRELATION EXPECTED OUTCOME 8 ITEM SUB-SCALE

	CATA_12	13	25	32	39	50	61	67
CATA_12	1.00	.35	.21	.37	.20	.15	.40	.14
CATA_13	.35	1.00	.31	.32	.31	.26	.32	.21
CATA_25	.21	.31	1.00	.41	.32	.25	.10	.32
CATA_32	.37	.32	.41	1.00	.63	.48	.42	.38
CATA_39	.20	.31	.32	.63	1.00	.44	.44	.53
CATA_50	.15	.26	.25	.48	.44	1.00	.35	.24
CATA_61	.40	.32	.10	.42	.44	.35	1.00	.30
CATA_67	.14	.21	.32	.38	.53	.24	.30	1.00

TABLE 20 CORRELATION EXPECTED OUTCOME ITEMS X SUB-SCALE TOTALS

Correlations (catares.sta)

Marked correlations are significant at  $p < .05000$

N=109 (Casewise deletion of missing data)

	NEWLIAB	NEWDEM	NEWEO
CATA_12	.18	.23	.44
CATA_13	.27	.29	.44
CATA_25	.37	.39	.54
CATA_32	.46	.47	.78
CATA_39	.50	.50	.80
CATA_50	.41	.43	.60
CATA_61	.40	.41	.65
CATA_67	.34	.37	.59

TABLE 21 EXPECTED OUTCOME SUB-SCALE 8 ITEMS

12. After therapy I will still be left with the real problem of not having enough money.
13. After therapy I will still be left with the real problem of the neighbourhood in which I live.
25. I worry family/friends will expect me to do too much if therapy is successful.
32. Even if I improve, after therapy I will still have a boring life.
39. Even if I improve with therapy, I can't see me ever being happy with the way I am.
50. Even if I improve with therapy not being as clever or skillful as other people will always cause me problems in my life.
61. After therapy I will still be left with the real problem of not having a good close relationship.
67. Even if I improve with therapy I will still be left with the real problem of the state of my body.



TABLE 22 ALPHA DEMAND 8 ITEM SUB-SCALE

Summary for scale: Mean=5.86239 Std.Dv.=4.33433 Valid N:109  
 Cronbach alpha: .700027 Standardized alpha: .710630  
 Average inter-item corr.: .238265

	Mean if deleted	Var. if deleted	StDv. if deleted	Itm-Totl Correl.	Alpha if deleted
CATA_2	5.495413	15.73622	3.966890	.371000	.676367
CATA_3	4.027523	13.56805	3.683483	.412459	.668784
CATA_8	5.431193	15.84160	3.980150	.355137	.679232
CATA_20	5.550459	16.32085	4.039907	.359934	.680862
CATA_27	5.412844	14.88461	3.858057	.475308	.655255
CATA_29	4.678899	13.08038	3.616681	.500089	.643105
CATA_57	5.431193	15.34618	3.917420	.347123	.680236
CATA_64	5.009174	14.11918	3.757550	.363600	.681111

TABLE 23 INTER -ITEM CORRELATION DEMAND 8 ITEM SUB-SCALE

	2	3	8	20	27	29	57	64
CATA_2	1.00	.31	.21	.34	.37	.10	.13	.15
CATA_3	.31	1.00	.22	.13	.19	.52	.13	.14
CATA_8	.21	.22	1.00	.14	.30	.14	.26	.23
CATA_20	.34	.13	.14	1.00	.48	.17	.19	.15
CATA_27	.37	.19	.30	.48	1.00	.28	.22	.23
CATA_29	.10	.52	.14	.17	.28	1.00	.28	.36
CATA_57	.13	.13	.26	.19	.22	.28	1.00	.24
CATA_64	.15	.14	.23	.15	.23	.36	.24	1.00

TABLE 24 DEMAND SUB-SCALE 8 ITEMS X SUB-SCALE TOTALS

Correlations (catares.sta)  
 Marked correlations are significant at  $p < .05000$   
 N=109 (Casewise deletion of missing data)

	NEWDEM	NEWLIAB	NEWEO
CATA_2	.52	.25	.06
CATA_3	.63	.27	.25
CATA_8	.51	.17	.19
CATA_20	.49	.21	.07
CATA_27	.62	.30	.25
CATA_29	.69	.45	.54
CATA_57	.52	.40	.36
CATA_64	.58	.35	.37

TABLE 24 ITEM CORRELATION WITH SCALE TOTAL (CATA 24)

TABLE 25 DEMAND SUB-SCALE 8 ITEMS

- 2. I have difficulty looking after my family properly and attending appointments.
- 3. I dislike confronting painful emotions in therapy.
- 8. I have too many appointments with health professionals.
- 20. It costs me money at work (or at home) when I attend appointments.
- 27. I have problems with transport when getting to appointments (e.g. cost, hassles, etc.).
- 29. I dislike talking about embarrassing things to the therapist
- 57. When the weather is bad I find it hard to attend appointments.
- 64. People I socialise with expect too much from me at this time.

CATA 2	.41
CATA 29	.48
CATA 32	.43
CATA 35	.34
CATA 38	.40
CATA 39	.49
CATA 48	.37
CATA 50	.37
CATA 54	.35
CATA 57	.31
CATA 61	.34
CATA 64	.32
CATA 67	.35

TABLE 27 INTERCORRELATION SUB-SCALE TOTALS (CATA 24)

Correlations (estimates only)  
 Marked correlations are significant at  $p < 0.0020$   
 N=119 (Case-wise deletion of missing data)

	NEWDEM	NEWLIAB	NEWCO
NEWDEM	1.00	.34	.40
NEWLIAB	.34	1.00	.31
NEWCO	.40	.31	1.00



TABLE 26 ITEM CORRELATION WITH SCALE TOTAL (CATA 24)

Correlations (catares.sta)

Marked correlations are significant at  $p < .05000$

N=109 (Casewise deletion of missing data)

	NEWTOT	Parameter Estimate	Standard Error	T Statistic	Prob Level
CATA_2	.30				
CATA_3	.45				
CATA_4	.34	.343	.088	3.895	.000
CATA_8	.34	.343	.100	3.430	.000
CATA_10	.37	.374	.118	3.111	.000
CATA_12	.41	.414	.076	5.431	.000
CATA_13	.44	.441	.121	3.643	.000
CATA_20	.29	.279	.077	3.201	.001
CATA_21	.63	.295	.113	2.596	.009
CATA_22	.40	.216	.075	2.873	.004
CATA_25	.51	.241	.080	3.011	.002
CATA_27	.46	.497	.116	4.286	.000
CATA_29	.68	.245	.079	3.078	.002
CATA_32	.68	.361	.067	5.369	.000
CATA_33	.54	.377	.083	4.525	.000
CATA_38	.40	.391	.105	3.726	.000
CATA_39	.69	.377	.090	4.200	.000
CATA_43	.37	.376	.115	3.269	.000
CATA_50	.57	.465	.121	3.831	.000
CATA_54	.35	.407	.092	4.345	.000
CATA_57	.51	.304	.104	2.926	.000
CATA_61	.54	1.013	.172	5.881	.000
CATA_64	.52	1.361	.116	11.731	.000
CATA_67	.55	.395	.093	4.250	.000

TABLE 27 INTERCORRELATION SUB-SCALE TOTALS (CATA 24)

Correlations (catares.sta)

Marked correlations are significant at  $p < .05000$

N=109 (Casewise deletion of missing data)

	NEWDEM	NEWLIAB	NEWEO
NEWDEM	1.00	.54	.49
NEWLIAB	.54	1.00	.51
NEWEO	.49	.51	1.00

TABLE 28 CONFIRMATORY FACTOR ANALYSIS CATA 24

3 SUB-SCALE SOLUTION

Model Estimates (catares.sta)

	Parameter Estimate	Standard Error	T Statistic	Prob. Level
(LIAB)-1->[CATA_4]	.343	.088	3.895	.000
(LIAB)-2->[CATA_10]	.385	.100	3.839	.000
(LIAB)-3->[CATA_21]	.914	.110	8.311	.000
(LIAB)-4->[CATA_22]	.389	.076	5.131	.000
(LIAB)-5->[CATA_33]	.541	.121	4.453	.000
(LIAB)-6->[CATA_38]	.279	.087	3.201	.001
(LIAB)-7->[CATA_43]	.295	.113	2.596	.009
(LIAB)-8->[CATA_54]	.216	.075	2.875	.004
(DEMAND)-9->[CATA_2]	.241	.080	3.011	.003
(DEMAND)-10->[CATA_3]	.657	.116	5.656	.000
(DEMAND)-11->[CATA_8]	.245	.079	3.079	.002
(DEMAND)-12->[CATA_20]	.198	.067	2.969	.003
(DEMAND)-13->[CATA_27]	.376	.083	4.525	.000
(DEMAND)-14->[CATA_29]	.881	.105	8.406	.000
(DEMAND)-15->[CATA_57]	.417	.090	4.630	.000
(DEMAND)-16->[CATA_64]	.536	.115	4.639	.000
(EXP OUT)-17->[CATA_12]	.465	.121	3.831	.000
(EXP OUT)-18->[CATA_13]	.407	.092	4.445	.000
(EXP OUT)-19->[CATA_25]	.504	.104	4.836	.000
(EXP OUT)-20->[CATA_32]	1.013	.112	9.021	.000
(EXP OUT)-21->[CATA_39]	1.061	.116	9.161	.000
(EXP OUT)-22->[CATA_50]	.595	.095	6.260	.000
(EXP OUT)-23->[CATA_61]	.656	.113	5.808	.000
(EXP OUT)-24->[CATA_67]	.774	.132	5.882	.000
(DELTA1)-->[CATA_4]	.....	.....	.....	.....
(DELTA3)-->[CATA_21]	.....	.....	.....	.....
(DELTA4)-->[CATA_22]	.....	.....	.....	.....
(DELTA5)-->[CATA_33]	.....	.....	.....	.....
(DELTA6)-->[CATA_38]	.....	.....	.....	.....
(DELTA7)-->[CATA_43]	.....	.....	.....	.....
(DELTA8)-->[CATA_54]	.....	.....	.....	.....
(DELTA9)-->[CATA_2]	.....	.....	.....	.....
(DELTA10)-->[CATA_3]	.....	.....	.....	.....
(DELTA11)-->[CATA_8]	.....	.....	.....	.....
(DELTA12)-->[CATA_20]	.....	.....	.....	.....
(DELTA13)-->[CATA_27]	.....	.....	.....	.....
(DELTA14)-->[CATA_29]	.....	.....	.....	.....
(DELTA15)-->[CATA_57]	.....	.....	.....	.....
(DELTA16)-->[CATA_64]	.....	.....	.....	.....
(DELTA17)-->[CATA_12]	.....	.....	.....	.....
(DELTA18)-->[CATA_13]	.....	.....	.....	.....
(DELTA19)-->[CATA_25]	.....	.....	.....	.....
(DELTA20)-->[CATA_32]	.....	.....	.....	.....
(DELTA21)-->[CATA_39]	.....	.....	.....	.....
(DELTA22)-->[CATA_50]	.....	.....	.....	.....
(DELTA23)-->[CATA_61]	.....	.....	.....	.....
(DELTA24)-->[CATA_67]	.....	.....	.....	.....
(DELTA1)-25-(DELTA1)	.629	.089	7.041	.000
(DELTA2)-26-(DELTA2)	.817	.116	7.051	.000
(DELTA3)-27-(DELTA3)	.605	.064	6.769	.000
(DELTA5)-29-(DELTA5)	1.162	.168	6.933	.000
(DELTA6)-30-(DELTA6)	.636	.089	7.147	.000



(DELTA7)-31-(DELTA7)	1.097	.152	7.219	.000
(DELTA8)-32-(DELTA8)	.476	.066	7.188	.000
(DELTA9)-33-(DELTA9)	.547	.076	7.192	.000
(DELTA10)-34-(DELTA10)	1.004	.150	6.702	.000
(DELTA11)-35-(DELTA11)	.540	.075	7.185	.000
(DELTA12)-36-(DELTA12)	.381	.053	7.197	.000
(DELTA13)-37-(DELTA13)	.553	.079	6.968	.000
(DELTA14)-38-(DELTA14)	.579	.112	5.187	.000
(DELTA15)-39-(DELTA15)	.647	.093	6.948	.000
(DELTA16)-40-(DELTA16)	1.062	.153	6.946	.000
(DELTA17)-41-(DELTA17)	1.260	.177	7.137	.000
(DELTA18)-42-(DELTA18)	.698	.099	7.055	.000
(DELTA19)-43-(DELTA19)	.885	.127	6.993	.000
(DELTA20)-44-(DELTA20)	.664	.123	5.390	.000
(DELTA21)-45-(DELTA21)	.688	.130	5.277	.000
(DELTA22)-46-(DELTA22)	.668	.100	6.689	.000
(DELTA23)-47-(DELTA23)	.976	.143	6.801	.000
(DELTA24)-48-(DELTA24)	1.317	.194	6.784	.000
(DEMAND)-49-(LIAB)	.909	.065	13.938	.000
(EXP OUT)-50-(LIAB)	.650	.086	7.583	.000
(EXP OUT)-51-(DEMAND)	.696	.078	8.898	.000

Single Sample Fit Indices (catares.sta)

	Value
Joreskog GFI	.746
Joreskog AGFI	.694
Akaike Information Criterion	5.202
Schwarz's Bayesian Criterion	6.472
Browne-Cudeck Cross Validation Index	5.486
Independence Model Chi-Square	938.361
Independence Model df	.276.000
Bentler-Bonett Normed Fit Index	.510
Bentler-Bonett Non-Normed Fit Index	.645
Bentler Comparative Fit Index	.682
James-Mulaik-Brett Parsimonious Fit Index	.460
Bollen's Rho	.457
Bollen's Delta	.692

Noncentrality Fit Indices (catares.sta)

	Lower 90% Conf. Bound	Point Estimate	Upper 90% Conf. Bound
Population Noncentrality Parameter <sup>1</sup>	.273	1.779	2.358
Steiger-Lind RMSEA Index	.071	.085	.097
McDonald Noncentrality Index	.308	.411	.529
Population Gamma Index	.836	.871	.904
Adjusted Population Gamma Index	.802	.844	.884



SINGLE FACTOR SOLUTION (3 FACTOR MODEL)

Model Estimates (catares.sta)

	Parameter Estimate	Standard Error	T Statistic	Probability Level	
(ONEFAC)-1->[CATA_2]	.173	.078	2.219	.027	
(ONEFAC)-2->[CATA_3]	.538	.115	4.663	.000	
(ONEFAC)-3->[CATA_4]	.314	.086	3.671	.000	
(ONEFAC)-4->[CATA_8]	.214	.079	2.713	.007	
(ONEFAC)-5->[CATA_10]		.324	.097	3.347	.001
(ONEFAC)-6->[CATA_12]		.391	.123	3.181	.001
(ONEFAC)-7->[CATA_13]		.367	.091	4.011	.000
(ONEFAC)-8->[CATA_20]		.139	.066	2.104	.035
(ONEFAC)-9->[CATA_21]		.765	.111	6.886	.000
(ONEFAC)-10->[CATA_22]		.294	.076	3.851	.000
(ONEFAC)-11->[CATA_25]		.521	.103	5.041	.000
(ONEFAC)-12->[CATA_27]		.320	.083	3.855	.000
(ONEFAC)-13->[CATA_29]		.833	.103	8.068	.000
(ONEFAC)-14->[CATA_32]		.887	.117	7.573	.000
(ONEFAC)-15->[CATA_33]		.568	.118	4.833	.000
(ONEFAC)-16->[CATA_38]		.309	.085	3.651	.000
(ONEFAC)-17->[CATA_39]		.964	.119	8.075	.000
(ONEFAC)-18->[CATA_43]		.306	.108	2.830	.005
(ONEFAC)-19->[CATA_50]		.610	.094	6.459	.000
(ONEFAC)-20->[CATA_54]		.222	.073	3.032	.002
(ONEFAC)-21->[CATA_57]		.435	.088	4.928	.000
(ONEFAC)-22->[CATA_61]		.593	.113	5.268	.000
(ONEFAC)-23->[CATA_64]		.543	.114	4.784	.000
(ONEFAC)-24->[CATA_67]		.733	.133	5.518	.000
(DELTA1)-->[CATA_2]	.....	.....	.....	.....	
(DELTA2)-->[CATA_3]	.....	.....	.....	.....	
(DELTA3)-->[CATA_4]	.....	.....	.....	.....	
(DELTA4)-->[CATA_8]	.....	.....	.....	.....	
(DELTA5)-->[CATA_10]	.....	.....	.....	.....	
(DELTA6)-->[CATA_12]	.....	.....	.....	.....	
(DELTA7)-->[CATA_13]	.....	.....	.....	.....	
(DELTA8)-->[CATA_20]	.....	.....	.....	.....	
(DELTA9)-->[CATA_21]	.....	.....	.....	.....	
(DELTA10)-->[CATA_22]	.....	.....	.....	.....	
(DELTA11)-->[CATA_25]	.....	.....	.....	.....	
(DELTA12)-->[CATA_27]	.....	.....	.....	.....	
(DELTA13)-->[CATA_29]	.....	.....	.....	.....	
(DELTA14)-->[CATA_32]	.....	.....	.....	.....	
(DELTA15)-->[CATA_33]	.....	.....	.....	.....	
(DELTA16)-->[CATA_38]	.....	.....	.....	.....	
(DELTA17)-->[CATA_39]	.....	.....	.....	.....	
(DELTA18)-->[CATA_43]	.....	.....	.....	.....	
(DELTA19)-->[CATA_50]	.....	.....	.....	.....	
(DELTA20)-->[CATA_54]	.....	.....	.....	.....	
(DELTA21)-->[CATA_57]	.....	.....	.....	.....	
(DELTA22)-->[CATA_61]	.....	.....	.....	.....	
(DELTA23)-->[CATA_64]	.....	.....	.....	.....	
(DELTA24)-->[CATA_67]	.....	.....	.....	.....	
(DELTA1)-25-(DELTA1)	.557	.077	7.230	.000	
(DELTA2)-26-(DELTA2)	1.115	.158	7.035	.000	
(DELTA3)-27-(DELTA3)	.641	.090	7.135	.000	
(DELTA4)-28-(DELTA4)	.561	.078	7.203	.000	
(DELTA5)-29-(DELTA5)	.828	.116	7.161	.000	
(DELTA6)-30-(DELTA6)	1.344	.187	7.173	.000	
(DELTA7)-31-(DELTA7)	.722	.102	7.105	.000	
(DELTA8)-32-(DELTA8)	.403	.056	7.235	.000	



(DELTA9)-33-(DELTA9)	.883	.133	6.655	.000	
(DELTA10)-34-(DELTA10)		.505	.071	7.119	.000
(DELTA11)-35-(DELTA11)		.876	.125	6.988	.000
(DELTA12)-36-(DELTA12)		.601	.084	7.119	.000
(DELTA13)-37-(DELTA13)		.674	.107	6.307	.000
(DELTA14)-38-(DELTA14)		.918	.142	6.470	.000
(DELTA15)-39-(DELTA15)		1.146	.163	7.015	.000
(DELTA16)-40-(DELTA16)		.628	.088	7.137	.000
(DELTA17)-41-(DELTA17)		.901	.143	6.304	.000
(DELTA18)-42-(DELTA18)		1.055	.147	7.196	.000
(DELTA19)-43-(DELTA19)		.663	.098	6.750	.000
(DELTA20)-44-(DELTA20)		.478	.067	7.183	.000
(DELTA21)-45-(DELTA21)		.644	.092	7.003	.000
(DELTA22)-46-(DELTA22)		1.027	.148	6.957	.000
(DELTA23)-47-(DELTA23)		1.072	.153	7.021	.000
(DELTA24)-48-(DELTA24)		1.406	.203	6.919	.000

Single Sample Fit Indices (catares.sta)

	Value
Joreskog GFI	.711
Joreskog AGFI	.656
Akaike Information Criterion	5.775
Schwarz's Bayesian Criterion	6.985
Browne-Cudeck Cross Validation Index	6.054
Independence Model Chi-Square	945.216
Independence Model df	276.000
Bentler-Bonett Normed Fit Index	.454
Bentler-Bonett Non-Normed Fit Index	.566
Bentler Comparative Fit Index	.605
James-Mulaik-Brett Parsimonious Fit Index	.414
Bollen's Rho	.402
Bollen's Delta	.617

Noncentrality Fit Indices (catares.sta)

	Lower 90% Conf. Bound	Point Estimate	Upper 90% Conf. Bound
Population Noncentrality Parameter	1.918	2.495	3.145
Steiger-Lind RMSEA Index	.087	.100	.112
McDonald Noncentrality Index	.208	.287	.383
Population Gamma Index	.792	.828	.862
Adjusted Population Gamma Index	.753	.795	.836

**TABLE 29 - CATA 24**

**QUESTIONNAIRE ITEM DISTRIBUTION X SUB-CONSTRUCTS AND DOMAINS**

		<b>DOMAINS</b>			
		<b>Individual</b>	<b>Family/Friends</b>	<b>Social/Environment</b>	<b>Service systems</b>
<b>SUB CONSTRUCTS</b>	<b>Demands</b>	29 SK	2 PR	20 SB 27 TR 57 TR 64 AG	3 TPY 8 ACC
	<b>Liabilities</b>	4 SK 10 EMB 21 SC 54 EMB		33 W 43 NE	22 TPST 38 TPST
	<b>Expected Outcome</b>	32 EMB 39 EMB 50 SK 67 EMB	25 PR 61 EM	12 SB 13 NE	



TABLE 30 ALPHA EFFICACY BELIEFS SUB-SCALE

Summary for scale: Mean=4.78505 Std.Dv.=4.36329 Valid N:107  
 Cronbach alpha: .723699 Standardized alpha: .738486  
 Average inter-item corr.: .273316

	Mean if deleted	Var. if deleted	StDv. if deleted	Itm-Totl Correl.	Alpha if deleted
CATA_11	3.504673	12.79203	3.576595	.558139	.661591
CATA_23	3.794393	13.06053	3.613935	.528274	.669805
CATA_49	4.308411	15.29741	3.911190	.447241	.690927
CATA_51	4.130841	14.37540	3.791491	.380417	.707072
CATA_65	4.046729	14.54922	3.814344	.382039	.705418
CATA_69	4.598131	17.13757	4.139754	.265122	.721377
CATA_71	4.570094	16.54415	4.067451	.390136	.705270
CATA_72	4.542056	16.32300	4.040173	.472302	.696097

TABLE 31 INTER ITEM CORRELATION EFFICACY BELIEFS SUB-SCALE

Correlations (catares.sta)  
 Marked correlations are significant at  $p < .05000$   
 N=107 (Casewise deletion of missing data)

	CATA_11	23	49	51	65	69	71	72
CATA_11	1.00	.74	.28	.22	.21	.19	.23	.30
CATA_23	.74	1.00	.31	.17	.19	.20	.24	.21
CATA_49	.28	.31	1.00	.45	.36	.06	.04	.19
CATA_51	.22	.17	.45	1.00	.34	.07	.11	.23
CATA_65	.21	.19	.36	.34	1.00	.05	.18	.28
CATA_69	.19	.20	.06	.07	.05	1.00	.49	.29
CATA_71	.23	.24	.04	.11	.18	.49	1.00	.67
CATA_72	.30	.21	.19	.23	.28	.29	.67	1.00

TABLE 32 CORRELATION EFFICACY BELIEFS 8 ITEMS X SUB-SCALE TOTALS

Correlations (catares.sta)  
 Marked correlations are significant at  $p < .05000$   
 N=107 (Casewise deletion of missing data)

	NEWDEM	NEWLIAB	NEWEO	EFFICACY
CATA_11	.46	.48	.57	.73
CATA_23	.41	.45	.67	.71
CATA_49	.31	.59	.32	.62
CATA_51	.33	.40	.27	.59
CATA_65	.45	.39	.25	.58
CATA_69	.05	.18	.16	.39
CATA_71	.35	.29	.15	.51
CATA_72	.47	.32	.26	.57

TABLE 33 EFFICACY BELIEFS SUB-SCALE ITEMS (CATA 33)

Correlations (catars.sta)  
 Marked correlations are significant at  $p < .05000$   
 N=107 (Casewise deletion of missing data)

- 11 I believe there is nothing I can do to make my life better no matter what I do.
- 23 I don't really expect my life to improve very much even if therapy is successful.
- 49 People around where I live think that therapy is a waste of time.
- 51 Someone close to me doesn't believe that therapy can help.
- 65 Someone close to me doesn't believe that I am capable of changing myself.
- 69 The type of therapy / treatment on offer is not appropriate for my problems.
- 71 The person who referred me for therapy does not really believe that I am capable of changing myself.
- 72 The person who referred me for therapy does not really believe that my life will improve as a result of therapy.

TABLE 34 INTER CORRELATION SUB-SCALE TOTALS

Correlations (catares.sta)  
 Marked correlations are significant at  $p < .05000$   
 N=107 (Casewise deletion of missing data)

	NEWDEM	NEWLIAB	NEWEO	EFFICACY
NEWDEM	1.00	.53	.50	.61
NEWLIAB	.53	1.00	.52	.68
NEWEO	.50	.52	1.00	.60
EFFICACY	.61	.68	.60	1.00



TABLE 35 ITEM CORRELATION WITH SCALE TOTAL (CATA 32)

Correlations (catares.sta)

Marked correlations are significant at  $p < .05000$

N=107 (Casewise deletion of missing data)

	Estimate	Standard Error	T Statistic	Prob. Level
NTOT_EFF				
CATA_2	.30	.079	3.166	.002
CATA_3	.41	.115	5.864	.000
CATA_4	.34	.081	3.085	.002
CATA_8	.36	.067	3.008	.003
CATA_10	.40	.084	4.533	.000
CATA_11	.66	.106	2.443	.008
CATA_12	.38	.092	4.565	.000
CATA_13	.42	.117	4.579	.000
CATA_20	.28	.336	3.855	.000
CATA_21	.63	.401	4.121	.000
CATA_22	.40	.914	8.312	.000
CATA_23	.66	.398	5.272	.000
CATA_25	.50	.535	4.403	.000
CATA_27	.45	.309	3.563	.000
CATA_29	.65	.295	2.658	.008
CATA_32	.68	.196	2.604	.009
CATA_33	.56	.121	3.674	.000
CATA_38	.42	.336	4.371	.000
CATA_39	.69	.251	4.454	.000
CATA_43	.39	.321	9.290	.000
CATA_49	.56	.115	9.939	.000
CATA_50	.57	.283	6.126	.000
CATA_51	.48	.164	6.244	.000
CATA_54	.34	.219	5.403	.000
CATA_57	.52	.954	9.651	.000
CATA_61	.54	.976	10.114	.000
CATA_64	.54	.362	4.483	.000
CATA_65	.50	.379	3.374	.001
CATA_67	.53	.371	3.436	.001
CATA_69	.21	.156	2.510	.012
CATA_71	.32	.198	3.215	.001
CATA_72	.43	.227	3.964	.000



TABLE 36 CONFIRMATORY FACTOR ANALYSIS CATA 32

FOUR SUB-SCALES SOLUTION

Model Estimates (catares.sta)

	Parameter Estimate	Standard Error	T Statistic	Prob. Level
(DEMAND)-1->[CATA_2]	.251	.079	3.166	.002
(DEMAND)-2->[CATA_3]	.675	.115	5.864	.000
(DEMAND)-3->[CATA_8]	.249	.081	3.085	.002
(DEMAND)-4->[CATA_20]	.203	.067	3.008	.003
(DEMAND)-5->[CATA_27]	.382	.084	4.533	.000
(DEMAND)-6->[CATA_29]	.892	.106	8.443	.000
(DEMAND)-7->[CATA_57]	.418	.092	4.565	.000
(DEMAND)-8->[CATA_64]	.537	.117	4.579	.000
(LIABILITIES)-9->[CATA_4]	.336	.087	3.855	.000
(LIABILITIES)-10->[CATA_10]	.401	.097	4.121	.000
(LIABILITIES)-11->[CATA_21]	.914	.110	8.312	.000
(LIABILITIES)-12->[CATA_22]	.398	.076	5.272	.000
(LIABILITIES)-13->[CATA_33]	.535	.121	4.403	.000
(LIABILITIES)-14->[CATA_38]	.309	.087	3.562	.000
(LIABILITIES)-15->[CATA_43]	.295	.111	2.658	.008
(LIABILITIES)-16->[CATA_54]	.196	.075	2.604	.009
(EXPOUT)-17->[CATA_12]	.446	.121	3.674	.000
(EXPOUT)-18->[CATA_13]	.396	.091	4.371	.000
(EXPOUT)-19->[CATA_25]	.466	.105	4.454	.000
(EXPOUT)-20->[CATA_32]	1.028	.111	9.290	.000
(EXPOUT)-21->[CATA_39]	1.115	.112	9.939	.000
(EXPOUT)-22->[CATA_50]	.583	.095	6.126	.000
(EXPOUT)-23->[CATA_61]	.684	.110	6.244	.000
(EXPOUT)-24->[CATA_67]	.719	.133	5.403	.000
(EFFICACY)-25->[CATA_11]	.954	.099	9.651	.000
(EFFICACY)-26->[CATA_23]	.976	.097	10.114	.000
(EFFICACY)-27->[CATA_49]	.362	.081	4.483	.000
(EFFICACY)-28->[CATA_51]	.379	.112	3.374	.001
(EFFICACY)-29->[CATA_65]	.371	.108	3.436	.001
(EFFICACY)-30->[CATA_69]	.156	.062	2.510	.012
(EFFICACY)-31->[CATA_71]	.198	.061	3.215	.001
(EFFICACY)-32->[CATA_72]	.227	.057	3.964	.000
(DELTA1)-->[CATA_2]	.....	.....	.....	.....
(DELTA2)-->[CATA_3]	.....	.....	.....	.....
(DELTA3)-->[CATA_8]	.....	.....	.....	.....
(DELTA4)-->[CATA_20]	.....	.....	.....	.....
(DELTA5)-->[CATA_27]	.....	.....	.....	.....
(DELTA6)-->[CATA_29]	.....	.....	.....	.....
(DELTA7)-->[CATA_57]	.....	.....	.....	.....
(DELTA8)-->[CATA_64]	.....	.....	.....	.....
(DELTA9)-->[CATA_4]	.....	.....	.....	.....
(DELTA11)-->[CATA_21]	.....	.....	.....	.....
(DELTA12)-->[CATA_22]	.....	.....	.....	.....
(DELTA13)-->[CATA_33]	.....	.....	.....	.....
(DELTA14)-->[CATA_38]	.....	.....	.....	.....
(DELTA15)-->[CATA_43]	.....	.....	.....	.....



(DELTA16)-->[CATA_54]	.....	.....	.....	.....
(DELTA17)-->[CATA_12]	.....	.....	.....	.....
(DELTA18)-->[CATA_13]	.....	.....	.....	.....
(DELTA19)-->[CATA_25]	.....	.....	.....	.....
(DELTA20)-->[CATA_32]	.....	.....	.....	.....
(DELTA21)-->[CATA_39]	.....	.....	.....	.....
(DELTA22)-->[CATA_50]	.....	.....	.....	.....
(DELTA23)-->[CATA_61]	.....	.....	.....	.....
(DELTA24)-->[CATA_67]	.....	.....	.....	.....
(DELTA25)-->[CATA_11]	.....	.....	.....	.....
(DELTA26)-->[CATA_23]	.....	.....	.....	.....
(DELTA27)-->[CATA_49]	.....	.....	.....	.....
(DELTA28)-->[CATA_51]	.....	.....	.....	.....
(DELTA29)-->[CATA_65]	.....	.....	.....	.....
(DELTA30)-->[CATA_69]	.....	.....	.....	.....
(DELTA31)-->[CATA_71]	.....	.....	.....	.....
(DELTA32)-->[CATA_72]	.....	.....	.....	.....
(DELTA1)-33-(DELTA1)	.524	.074	7.105	.000
(DELTA2)-34-(DELTA2)	.949	.145	6.566	.000
(DELTA3)-35-(DELTA3)	.545	.077	7.114	.000
(DELTA4)-36-(DELTA4)	.382	.054	7.123	.000
(DELTA5)-37-(DELTA5)	.557	.081	6.895	.000
(DELTA6)-38-(DELTA6)	.570	.112	5.075	.000
(DELTA7)-39-(DELTA7)	.658	.096	6.889	.000
(DELTA8)-40-(DELTA8)	1.078	.157	6.886	.000
(DELTA9)-41-(DELTA9)	.626	.089	7.035	.000
(DELTA10)-42-(DELTA10)	.772	.110	6.995	.000
(DELTA11)-43-(DELTA11)	.632	.122	5.181	.000
(DELTA12)-44-(DELTA12)	.433	.064	6.772	.000
(DELTA13)-45-(DELTA13)	1.182	.170	6.949	.000
(DELTA14)-46-(DELTA14)	.628	.089	7.074	.000
(DELTA15)-47-(DELTA15)	1.061	.148	7.170	.000
(DELTA16)-48-(DELTA16)	.489	.068	7.174	.000
(DELTA17)-49-(DELTA17)	1.297	.182	7.140	.000
(DELTA18)-50-(DELTA18)	.699	.099	7.076	.000
(DELTA19)-51-(DELTA19)	.930	.132	7.067	.000
(DELTA20)-52-(DELTA20)	.649	.113	5.751	.000
(DELTA21)-53-(DELTA21)	.587	.111	5.281	.000
(DELTA22)-54-(DELTA22)	.695	.102	6.830	.000
(DELTA23)-55-(DELTA23)	.911	.134	6.808	.000
(DELTA24)-56-(DELTA24)	1.426	.205	6.948	.000
(DELTA25)-57-(DELTA25)	.483	.088	5.492	.000
(DELTA26)-58-(DELTA26)	.415	.082	5.065	.000
(DELTA27)-59-(DELTA27)	.555	.078	7.068	.000
(DELTA28)-60-(DELTA28)	1.123	.157	7.166	.000
(DELTA29)-61-(DELTA29)	1.038	.145	7.162	.000
(DELTA30)-62-(DELTA30)	.355	.049	7.219	.000
(DELTA31)-63-(DELTA31)	.339	.047	7.177	.000
(DELTA32)-64-(DELTA32)	.285	.040	7.119	.000
(LIABILITIES)-65-(DEMAND)	.904	.065	13.900	.000
(EXPOUT)-66-(DEMAND)	.682	.079	8.622	.000
(EFFICACY)-67-(DEMAND)	.678	.081	8.359	.000



(EXPOUT)-68-(LIABILITIES)	.653	.085	7.651	.000
(EFFICACY)-69-(LIABILITIES)	.786	.071	11.113	.000
(EFFICACY)-70-(EXPOUT)	.890	.043	20.646	.000

Model Estimates (catares.sta)

Parameter Estimate	Standard Error	T-Statistic	Prob Level
INTERCEPT	170	476	.633
EXP	113	4.059	.000
LIAB	184	3.113	.001
EXP*LIAB	177	3.046	.002
EXP**2	195	3.383	.000
LIAB**2	101	2.377	.020
EXP*LIAB**2	121	3.148	.000
LIAB*EXP**2	106	3.805	.000
EXP**3	194	3.227	.000
LIAB**3	113	6.733	.000
EXP*LIAB**3	134	3.334	.000
LIAB*EXP**3	101	3.001	.000
EXP**4	178	4.336	.000
LIAB**4	123	3.423	.000
EXP*LIAB**4	116	5.983	.000
LIAB*EXP**4	126	5.206	.000
EXP**5	194	4.546	.000
LIAB**5	101	7.034	.000
EXP*LIAB**5	134	3.334	.000
LIAB*EXP**5	101	2.904	.000
EXP**6	178	5.231	.001
LIAB**6	101	6.919	.000
EXP*LIAB**6	134	6.225	.000
LIAB*EXP**6	101	3.954	.000
EXP**7	194	2.981	.004
LIAB**7	101	3.344	.000
EXP*LIAB**7	134	3.734	.000
LIAB*EXP**7	101	4.245	.000
EXP**8	178	4.871	.000
LIAB**8	101	5.102	.000
EXP*LIAB**8	134	3.309	.001
LIAB*EXP**8	101	3.305	.001
EXP**9	194	4.511	.000

Single Sample Fit Indices (catares.sta)

Value
Joreskog GFI .611
Joreskog AGFI .551
Akaike Information Criterion 11.431
Schwarz's Bayesian Criterion 13.196
Browne-Cudeck Cross Validation Index 12.028
Independence Model Chi-Square 1788.970
Independence Model df 496.000
Bentler-Bonett Normed Fit Index .401
Bentler-Bonett Non-Normed Fit Index .484
Bentler Comparative Fit Index .525
James-Mulaik-Brett Parsimonious Fit Index .370
Bollen's Rho .351
Bollen's Delta .537

Noncentrality Fit Indices (catares.sta)

Lower 90% Conf. Bound	Point Estimate	Upper 90% Conf. Bound
Population Noncentrality Parameter	5.000	5.869 6.811
Steiger-Lind RMSEA Index	.104	.113 .122
McDonald Noncentrality Index	.033	.053 .082
Population Gamma Index	.701	.732 .762
Adjusted Population Gamma Index	.656	.691 .726



SINGLE FACTOR SOLUTION (4 FACTOR MODEL)

Model Estimates (catares.sta)

	Parameter Estimate	Standard Error	T Statistic	Prob. Level
(ONEFAC)-1->[CATA_2]	.190	.076	2.493	.013
(ONEFAC)-2->[CATA_3]	.467	.115	4.059	.000
(ONEFAC)-3->[CATA_4]	.281	.085	3.313	.001
(ONEFAC)-4->[CATA_8]	.235	.077	3.046	.002
(ONEFAC)-5->[CATA_10]	.339	.095	3.582	.000
(ONEFAC)-6->[CATA_11]	.867	.101	8.577	.000
(ONEFAC)-7->[CATA_12]	.383	.121	3.168	.002
(ONEFAC)-8->[CATA_13]	.344	.090	3.805	.000
(ONEFAC)-9->[CATA_20]	.145	.065	2.227	.026
(ONEFAC)-10->[CATA_21]	.741	.110	6.735	.000
(ONEFAC)-11->[CATA_22]	.291	.075	3.884	.000
(ONEFAC)-12->[CATA_23]	.883	.099	8.901	.000
(ONEFAC)-13->[CATA_25]	.472	.103	4.586	.000
(ONEFAC)-14->[CATA_27]	.298	.082	3.628	.000
(ONEFAC)-15->[CATA_29]	.729	.106	6.903	.000
(ONEFAC)-16->[CATA_32]	.930	.113	8.206	.000
(ONEFAC)-17->[CATA_33]	.571	.115	4.946	.000
(ONEFAC)-18->[CATA_38]	.349	.082	4.238	.000
(ONEFAC)-19->[CATA_39]	1.021	.115	8.904	.000
(ONEFAC)-20->[CATA_43]	.342	.106	3.231	.001
(ONEFAC)-21->[CATA_49]	.388	.079	4.919	.000
(ONEFAC)-22->[CATA_50]	.584	.094	6.225	.000
(ONEFAC)-23->[CATA_51]	.437	.109	3.994	.000
(ONEFAC)-24->[CATA_54]	.209	.072	2.901	.004
(ONEFAC)-25->[CATA_57]	.461	.086	5.349	.000
(ONEFAC)-26->[CATA_61]	.632	.110	5.774	.000
(ONEFAC)-27->[CATA_64]	.551	.111	4.948	.000
(ONEFAC)-28->[CATA_65]	.441	.105	4.203	.000
(ONEFAC)-29->[CATA_67]	.676	.132	5.108	.000
(ONEFAC)-30->[CATA_69]	.142	.062	2.309	.021
(ONEFAC)-31->[CATA_71]	.200	.061	3.305	.001
(ONEFAC)-32->[CATA_72]	.252	.056	4.511	.000
(DELTA1)-->[CATA_2]	.....	.....	.....	.....
(DELTA2)-->[CATA_3]	.....	.....	.....	.....
(DELTA3)-->[CATA_4]	.....	.....	.....	.....
(DELTA4)-->[CATA_8]	.....	.....	.....	.....
(DELTA5)-->[CATA_10]	.....	.....	.....	.....
(DELTA6)-->[CATA_11]	.....	.....	.....	.....
(DELTA7)-->[CATA_12]	.....	.....	.....	.....
(DELTA8)-->[CATA_13]	.....	.....	.....	.....
(DELTA9)-->[CATA_20]	.....	.....	.....	.....
(DELTA10)-->[CATA_21]	.....	.....	.....	.....
(DELTA11)-->[CATA_22]	.....	.....	.....	.....
(DELTA12)-->[CATA_23]	.....	.....	.....	.....
(DELTA13)-->[CATA_25]	.....	.....	.....	.....
(DELTA14)-->[CATA_27]	.....	.....	.....	.....
(DELTA15)-->[CATA_29]	.....	.....	.....	.....
(DELTA16)-->[CATA_32]	.....	.....	.....	.....
(DELTA17)-->[CATA_33]	.....	.....	.....	.....
(DELTA18)-->[CATA_38]	.....	.....	.....	.....
(DELTA19)-->[CATA_39]	.....	.....	.....	.....
(DELTA20)-->[CATA_43]	.....	.....	.....	.....
(DELTA21)-->[CATA_49]	.....	.....	.....	.....
(DELTA22)-->[CATA_50]	.....	.....	.....	.....
(DELTA23)-->[CATA_51]	.....	.....	.....	.....
(DELTA24)-->[CATA_54]	.....	.....	.....	.....



	Lower Conf. Int.	Upper Conf. Int.		Upper Conf. Int.
(DELTA25)-->[CATA_57]	.....	.....	.....	.....
(DELTA26)-->[CATA_61]	.....	.....	.....	.....
(DELTA27)-->[CATA_64]	.....	.....	.....	.....
(DELTA28)-->[CATA_65]	.....	.....	.....	.....
(DELTA29)-->[CATA_67]	.....	.....	.....	.....
(DELTA30)-->[CATA_69]	.....	.....	.....	.....
(DELTA31)-->[CATA_71]	.....	.....	.....	.....
(DELTA32)-->[CATA_72]	.....	.....	.....	.....
(DELTA1)-33-(DELTA1)	.551	.076	7.237	.000
(DELTA2)-34-(DELTA2)	1.186	.166	7.160	.000
(DELTA3)-35-(DELTA3)	.660	.092	7.202	.000
(DELTA4)-36-(DELTA4)	.552	.077	7.215	.000
(DELTA5)-37-(DELTA5)	.818	.114	7.188	.000
(DELTA6)-38-(DELTA6)	.640	.098	6.510	.000
(DELTA7)-39-(DELTA7)	1.350	.187	7.209	.000
(DELTA8)-40-(DELTA8)	.738	.103	7.176	.000
(DELTA9)-41-(DELTA9)	.402	.055	7.246	.000
(DELTA10)-42-(DELTA10)	.919	.133	6.889	.000
(DELTA11)-43-(DELTA11)	.507	.071	7.171	.000
(DELTA12)-44-(DELTA12)	.589	.092	6.413	.000
(DELTA13)-45-(DELTA13)	.925	.130	7.123	.000
(DELTA14)-46-(DELTA14)	.615	.086	7.186	.000
(DELTA15)-47-(DELTA15)	.835	.122	6.864	.000
(DELTA16)-48-(DELTA16)	.841	.127	6.607	.000
(DELTA17)-49-(DELTA17)	1.142	.161	7.094	.000
(DELTA18)-50-(DELTA18)	.601	.084	7.148	.000
(DELTA19)-51-(DELTA19)	.787	.123	6.412	.000
(DELTA20)-52-(DELTA20)	1.032	.143	7.206	.000
(DELTA21)-53-(DELTA21)	.535	.075	7.096	.000
(DELTA22)-54-(DELTA22)	.695	.100	6.960	.000
(DELTA23)-55-(DELTA23)	1.075	.150	7.164	.000
(DELTA24)-56-(DELTA24)	.484	.067	7.221	.000
(DELTA25)-57-(DELTA25)	.621	.088	7.057	.000
(DELTA26)-58-(DELTA26)	.979	.140	7.013	.000
(DELTA27)-59-(DELTA27)	1.063	.150	7.094	.000
(DELTA28)-60-(DELTA28)	.981	.137	7.150	.000
(DELTA29)-61-(DELTA29)	1.487	.210	7.080	.000
(DELTA30)-62-(DELTA30)	.360	.050	7.243	.000
(DELTA31)-63-(DELTA31)	.338	.047	7.203	.000
(DELTA32)-64-(DELTA32)	.273	.038	7.129	.000

Single Sample Fit Indices (catares.sta)

	Value
Joreskog GFI	.590
Joreskog AGFI	.533
Akaike Information Criterion	11.919
Schwarz's Bayesian Criterion	13.533
Browne-Cudeck Cross Validation Index	12.465
Independence Model Chi-Square	1788.970
Independence Model df	496.000
Bentler-Bonett Normed Fit Index	.365
Bentler-Bonett Non-Normed Fit Index	.443
Bentler Comparative Fit Index	.481
James-Mulaik-Brett Parsimonious Fit Index	.342
Bollen's Rho	.322
Bollen's Delta	.492



Noncentrality Fit Indices (catares.sta)

		Lower 90% Conf. Bound	Point Estimate	Upper 90% Conf. Bound
Population Noncentrality Parameter	5.839	6.759	7.751	
Steiger-Lind RMSEA Index		.112	.121	.129
McDonald Noncentrality Index	.021	.034	.054	
Population Gamma Index	.674	.703	.733	
Adjusted Population Gamma Index	.629	.662	.696	

TABLE 37 - CATA 32

QUESTIONNAIRE ITEM DISTRIBUTION X SUB-CONSTRUCTS AND DOMAINS

		DOMAINS			
		Individual	Family/Friends	Social/Environment	Service systems
SUB CONSTRUCTS	<b>Demands</b>	29 SK	2 PR	20 SB 27 TR 57 TR 64 AG	3 TPY 8 ACC
	<b>Liabilities</b>	4 SK 10 EMB 21 SC 54 EMB		33 W 43 NE	22 TPST 38 TPST
	<b>Expected Outcome</b>	32 EMB 39 EMB 50 SK 67 EMB	25 PR 61 EM	12 SB 13 NE	
	<b>Beliefs</b>	11 BV 23 BV	51 BV 65 BV	49 BV	69 BV 71 BV 72 BV



TABLE 38 - CATA 32 QUESTIONNAIRE						
Please read the statements below in turn and decide how much each one applies to you. When you have decided put a mark in one of the boxes next to the statement that best describes your answer. Please answer the items in order and do not leave any out. If you are not certain mark one of the boxes anyway.		Not at all	Only a little	Somewhat	A great deal	Completely
1.	I have problems with transport when getting to appointments (e.g. cost, hassles, etc.).	D	2 7			
2.	Wherever I go I always I find it difficult to say an appointment time is not convenient.	L	4			
3.	I don't really expect my life to improve very much even if therapy is successful.	E F	2 3			
4.	I have too many appointments with health professionals.	D	8			
5.	Even if I improve with therapy, I can't see me ever being happy with the way I am.	E O	3 9			
6.	I often have difficulty remembering to keep appointments.	L	1 0			
7.	The type of therapy / treatment on offer is not appropriate for my problems.	E F	6 9			
8.	I have difficulty looking after my family properly and attending appointments.	D	2			
9.	Often I am not well enough to attend appointment regularly.	L	5 4			
10.	The person who referred me for therapy/my therapist does not really believe that I am capable of changing myself.	E F	7 2			
11.	People I socialise with expect too much from me at this time.	D	6 4			
12.	Someone close to me doesn't believe that I am capable of changing myself.	E F	6 5			
13.	After therapy I will still be left with the real problem of not having a good close relationship.	E O	6 1			
14.	My workmates/friends look down on people who go to see a therapist.	L	3 3			
15.	Someone close to me doesn't believe that therapy can help.	E F	5 1			
16.	Even if I improve with therapy I will still be left with the real problem of the state of my body.	E O	6 7			
17.	I dislike talking about embarrassing things to health professionals.	D	2			



TABLE 38 - CATA 32 QUESTIONNAIRE						
Please read the statements below in turn and decide how much each one applies to you. When you have decided put a mark in one of the boxes next to the statement that best describes your answer. Please answer the items in order and do not leave any out. If you are not certain mark one of the boxes anyway.						
			9			
18.	After therapy I will still be left with the real problem of the neighbourhood in which I live.	E O	1 3			
19.	I worry family/friends will expect me to do too much if therapy is successful.	E O	2 5			
20.	People around where I live think that therapy is a waste of time.	E F	4 9			
21.	I think that it is difficult to understand what therapists talk about.	L	2 2			
22.	I don't believe that a therapist can really understand my problems.	L	3 8			
23.	Even if I improve with therapy not being as clever or skillful as other people will always cause me problems in my life.	E O	5 0			
24.	I believe there is nothing I can do to make my life better no matter what I do.	E F	1 1			
25.	If I were to bump into a neighbour in the department /clinic it could cause problems for me in my neighbourhood.	L	4 3			
26.	I always feel humiliated when talking about myself.	L	2 1			
27.	The person who referred me/my therapist does not really believe that my life will improve much as a result of therapy.	E F	7 1			
28.	It costs me money at work (or at home) when I attend appointments.	D	2 0			
29.	Even if I improve, after therapy I will still have a boring life.	E O	3 2			
30.	When the weather is bad I find it hard to attend appointments.	D	5 7			
31.	I dislike confronting painful emotions when talking to health professionals.	D	3			
32.	After therapy I will still be left with the real problem of not having enough money.	E O	1 2			



## APPENDIX F – Literature Search

### Search strategy for identification of relevant articles

#### 1. Electronic Search

An electronic search was carried out using PSYCLIT (1993-2000) using the following terms:

Psychotherapy and

Attrition of

Failure to attend or

Self-termination or

Early discontinuation or

Early termination or

Drop-out

255 articles were identified. The abstracts of all publications obtained were screened for relevance to the study.

**Inclusion:** Studies which directly investigated attrition.

Studies which reported relationships between attrition and other variables.

**Exclusion:** Studies specific to children.

APPENDIX G - R Studies specific to people with drug or alcohol problems.

Studies specific to men who batter.

At the end of this process 38 articles were selected and obtained for review. Of these 3 were themselves review articles.

## 2. Hand Search

A hand search was carried out using the same criteria on the following ?? journals for the ten years 1990 – 2000.

British Journal of Medical Psychology

British Journal of Clinical Psychology

Clinical Psychology Forum

British Journal of Psychiatry

At the end of this process 5 articles were selected and obtained for review.



## APPENDIX G - R&D AND ETHICAL COMMITTEE APPLICATION

### CONTEXT OF ATTRITION FROM PSYCHOTHERAPY

INVESTIGATOR: MR ROLAND SELF BA(Hons), MSc., C. Psychol., AFBPS.

RESEARCH TO FULFILL THE REQUIREMENTS OF DOCTOR OF PSYCHOLOGY DEGREE  
UNIVERSITY OF HULL.

SUPERVISOR: SUS CLEMENT B.Sc. (Hons), M.Sc., Dip. Clin. Psych. University of Hull

### INTRODUCTION

#### Background

The effectiveness of psychological therapies has received increasing attention in recent years. The introduction of clinical governance (Department of Health, 1997) has promoted the increasing use of evidence-based practice philosophy in all areas of health care in the NHS. Recent publications such as "What works for whom" (Roth and Fonagy, 1996) have given considerable reassurance for the efficacy of psychological therapies based on research trials.

Despite the confident optimism arising from such publications, criticism of psychotherapy continues to come from many sources including from the study of attrition (or dropout from therapy) in routine clinical practice. High levels of attrition seem to have been overlooked by those who point to outcomes in clinical trials as support for the efficacy of psychotherapy. As observed by Hant and Andrews (1992): "The finding that dropouts are ubiquitous in psychotherapy is very damaging for if patients do not stay for treatment then there is little point in developing effective treatment."

#### Characteristics of attrition

Attrition is a major problem for psychotherapy services with levels reaching as high as 60% in everyday service delivery systems. For example, reviews of the psychotherapy dropout literature (Backlund and Lundwell, 1975; Garfield, 1986) indicate that between 30% and 60% of psychotherapy outpatients terminate prematurely. In a more recent meta-analysis of 125 psychotherapy dropout studies, Wierzbicki and Pekarik (1995) found a mean rate of 45.86%

# **TITLE: AN INVESTIGATION INTO THE SOCIO-ECONOMIC CONTEXT OF ATTRITION FROM PSYCHOTHERAPY.**

**INVESTIGATOR: MR ROLAND SELF BA(Hons), MSc., C.Psychol., AFBPsS.**

**RESEARCH TO FULFILL THE REQUIREMENTS OF DOCTOR OF PSYCHOLOGY DEGREE  
UNIVERSITY OF HULL.**

**SUPERVISOR: SUE CLEMENT B.Soc.Sc.(Hons), M.Sc., Dip. Clin. Psych. University of Hull**

## **INTRODUCTION.**

### **Background.**

The effectiveness of psychological therapies has received increasing attention in recent years. The introduction of clinical governance (Department of Health, 1997) has promoted the increasing use of evidence-based practice philosophy in all areas of health care in the NHS. Recent publications such as "*What works for whom*" (Roth and Fonagy, 1996) have given considerable reassurance for the efficacy of psychological therapies based on research trials.

Despite the confident optimism arising from such publications, criticism of psychotherapy continues to come from many sources including from the study of attrition (or dropout from therapy) in routine clinical practice. High levels of attrition seem to have been overlooked by those who point to outcomes in clinical trials as support for the efficacy of psychotherapy. As observed by Hunt and Andrews (1992), "The finding that dropouts are ubiquitous in psychotherapy is very damaging for if patients do not stay for treatment then there is little point in developing effective treatment."

### **Characteristics of attrition.**

Attrition is a major problem for psychotherapy service with levels reaching as high as 60% in everyday service delivery systems. For example, reviews of the psychotherapy dropout literature (Baekeland and Lundwell, 1975; Garfield, 1986) indicate that between 30% and 60% of psychotherapy outpatients terminate prematurely. In a more recent meta-analysis of 125 psychotherapy dropout studies. Wierzbicki and Pekarik (1993) found a mean rate of 46.86%



## **Cost of attrition.**

Relatively few studies have investigated treatment outcome for people who dropout of therapy but those that have typically report a pattern of poor outcome (Pekarik, 1992) and low client satisfaction (Lebar, 1982), especially when dropout occurs within the first few sessions. Psychotherapy dropouts pose substantial problems for the delivery system itself with subsequent effects on therapy. Significant among them are morale problems for mental health professionals, reduced treatment efficiency and decreased cost effectiveness (Garfield, 1986; Pekarik, 1985).

## **Causes of attrition.**

Most published reports of attrition from therapy have consisted of attempts to describe its extent and cause. However, while the high rate of dropout has been well-documented information on the causes of attrition is quite weak relying on correlation data.

Searches for the causes of attrition have led researchers to uncover a multitude of correlations but very few variables emerge as significant predictors of attrition when attrition studies are aggregated. In their meta analysis of 125 studies of attrition from psychotherapy, Wierzbicki and Pekarik (1993) looked at 32 variables but found the significant effect sizes for just three variables (racial status, education and income).

Harris (1998) notes "Consequently, despite considerable empirical substantiation of the relationship between premature termination from treatment and clients race, education and socioeconomic status, the precise causal mechanisms driving minorities, persons with low education and individual in poverty to leave treatment early has yet to be determined." She goes on to conclude, "it is necessary for investigation to move beyond research on correlations of attrition to propose and test theoretical models with clearer implications for preventing attrition."

## **The governments agenda on inequalities in healthcare.**

This inequality of access to health care has not gone unnoticed and considerable government attention in recent years has focused upon health inequalities and socio-economic status. The *Independent Inquiry into Inequalities in Health* (Acheson, 1998) brings together the research evidence setting out the main influences on health inequalities such as poverty, housing and education. The governments response, *Reducing Health Inequalities: An Action Report* (Department of Health, 1999) and the white paper *Saving Lives: Our Healthier Nation* (Department of Health, 1999), sets out the governments commitment to "improving the health of the worst off in society." *The NHS Plan* (Department of Health, 2000) gives an unprecedented focus on the inequalities agenda within the NHS and *Closing the gap: setting local targets to reduce health inequalities* (NHS Health Development Agency, 2001) emphasises among other things inequality of access as a target for action.



## THE STUDY

This study aims to develop a theory of attrition and to develop a questionnaire to test this theory. It will provide important theoretical information but also develop a practical screening tool to detect people at high risk of attrition.

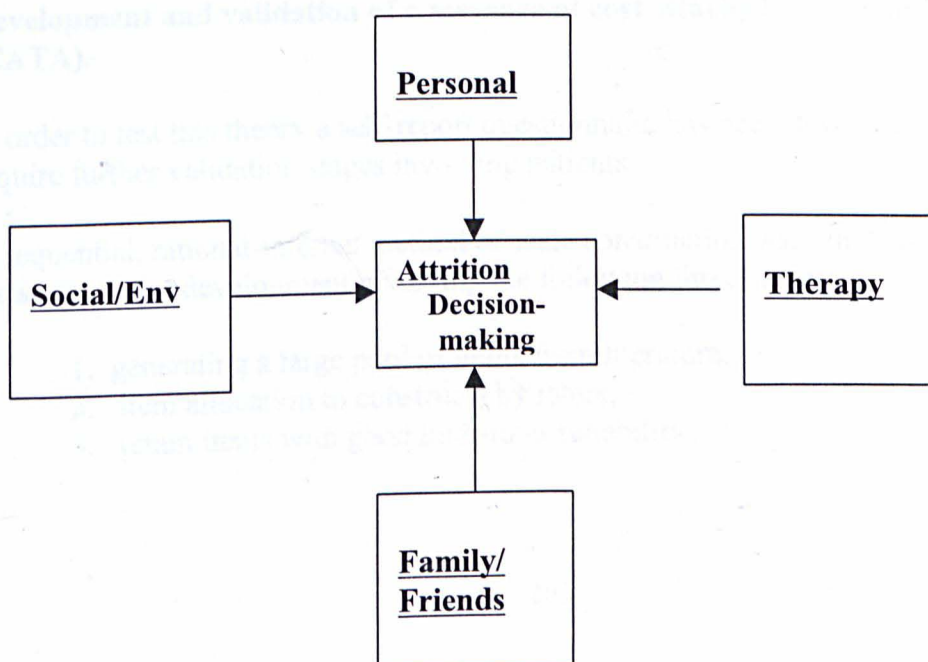
### The development of a theory of attrition.

In the current study work has already been undertaken on developing a theory of attrition. This has been developed out of community psychology and medical sociology literature. These approaches take a broader view of phenomena like attrition and place it in its socio-economic context. Despite this literature giving us clues as to the linkage between attrition and socio-economic status more work needs to be done before we are able to speculate on more appropriate systems of therapy delivery.

Community psychology questions the relevance of standard psychotherapy practice to the very many people whose lives are blighted by the very real effects of poverty and social exclusion. Attrition is seen as a decision to discontinue a particular health care pathway. The decision, whilst made by an individual, can only be understood in the context of a dynamic social network in which the individual is embedded.

### Domains of the dynamic interactive network

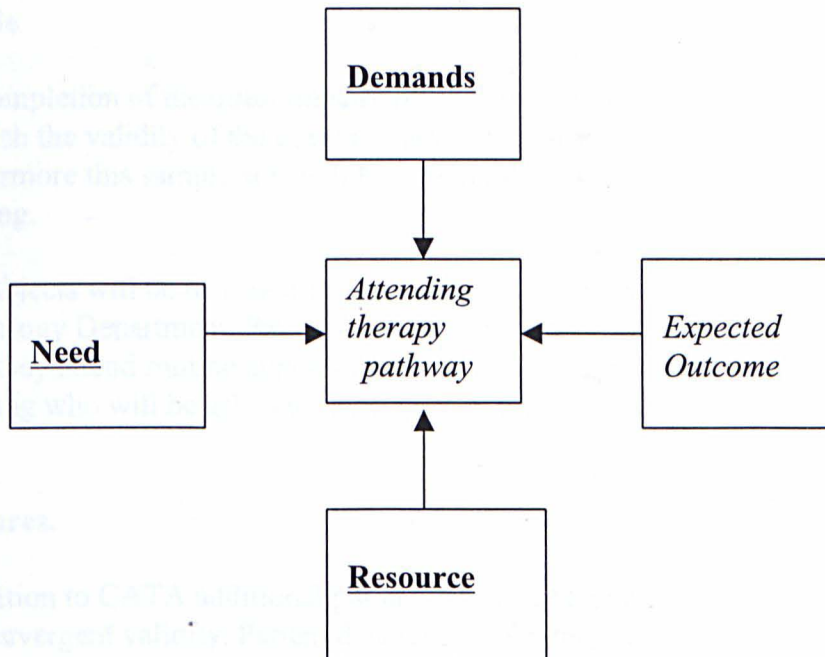
Having made the decision to undertake therapy, the behaviour is subject to costs and benefits reverberating around the dynamic interactive network. This network involves all the domains of a person's life. Once therapy has begun, the costs attached to this will become apparent, as will the revised expectations for the outcome of therapy.





## Decision Making and Pathways

Continuation on a particular pathway of behaviour will depend upon the balance of total demands upon a person in relation to that pathway and the total resources available to them. It will also be affected by any changes in the expected outcome in the light of experience.



### Development and validation of a measure of cost attached to attending therapy (CATA).

In order to test this theory a self-report questionnaire has been developed which will require further validation stages involving patients.

A sequential, rational-internal method of scale construction was employed to reflect the construct under development involving the following three stages:

1. generating a large pool of items from literature;
2. item allocation to constructs by raters;
3. retain items with good inter-rater reliability.

It is intended that a further three stages will be undertaken:

4. administered items to large sample population;
5. perform item and factor analyses;
6. Validate /revise the scale.

## **Method**

In order to validate the new questionnaire it will be necessary to administer it along with another measure to patients attending therapy.

## **Sample**

The completion of the questionnaire by approximately 250 patients will be sufficient to establish the validity of the questionnaire using structural equation modelling. Furthermore this sample size will be sufficient to provide data of use for service planning.

The subjects will be recruited from adult psychotherapy patients attending the Clinical Psychology Department. Patients on the current caseload will be asked to participate when they attend routine appointments. A second sample will consist of all new patients attending who will be asked to participate at the end of their first appointment.

## **Measures.**

In addition to CATA additional patient data will be required to establish discriminant and convergent validity. Patient data will be obtained from two sources:

Data collected specifically for the study.

- Education level
- Employment level
- Marital status
- Living arrangements
- Deprivation index
- CATA Scale scores

Data collected routinely.

- Age
- Gender
- Postcode
- Therapy attendance
- Discharge status
- BDI Scale scores



### Predictive validity -testing the theory.

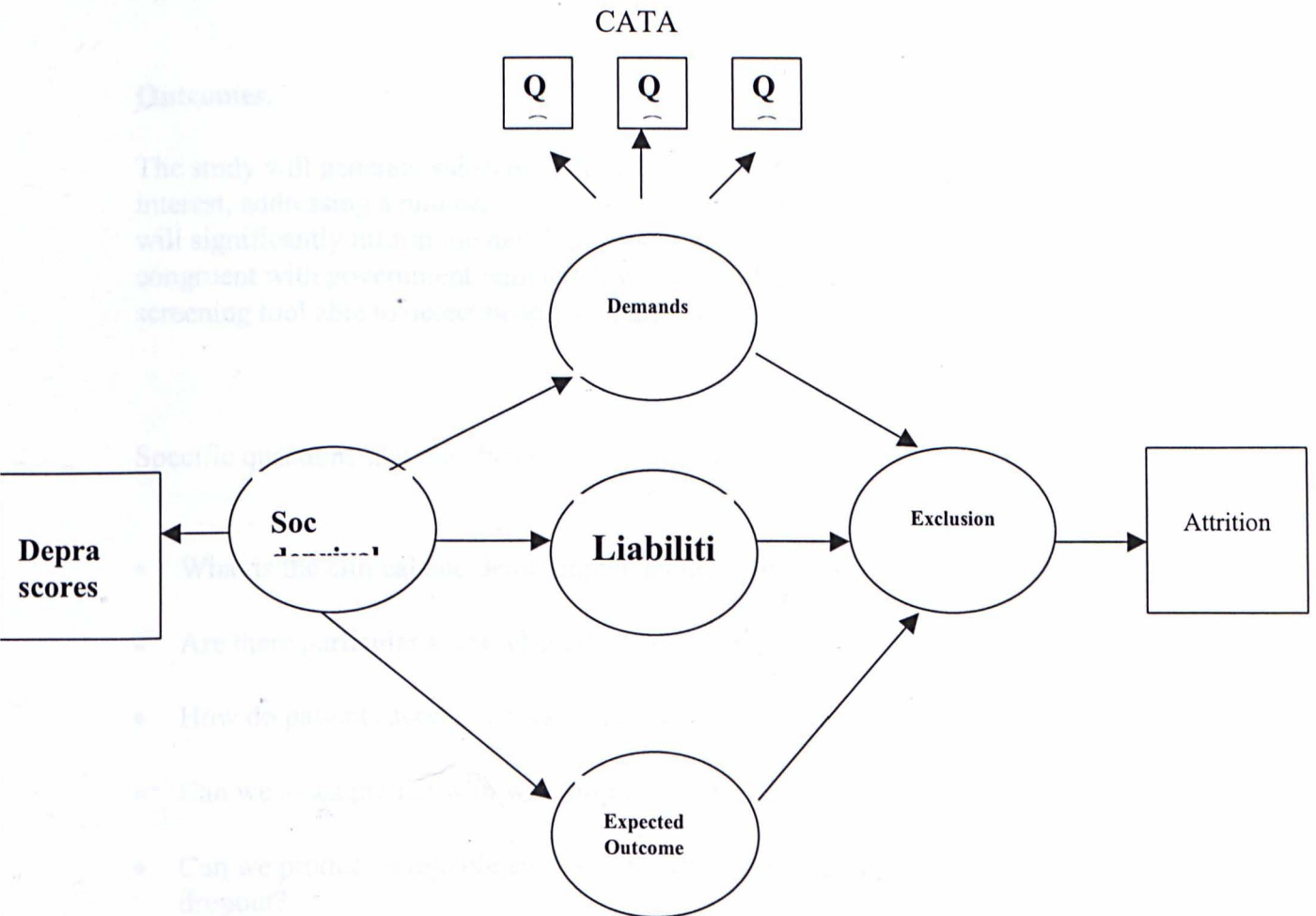
People of low socio-economic status (SES) opt out of therapy for rational reasons related to the cost benefit equation within their dynamic interactive network. In particular it is hypothesized that:

People of low SES will score higher on one or more subscales of CATA than people of higher SES.

People who score higher on one or more subscales of CATA will opt out of therapy more frequently and/or earlier than those who score lower.

The theory will be tested using structural equation modeling as outlined below. The proposed and alternative plausible hypotheses derived from the data set will be tested for goodness of fit.

### Testing the Theory



## **Informed consent.**

All patients asked to participate in the study will be given a full explanation as to the nature of the research and the extent of the data that will be used. They will be reassured that the details of their participation will not be given to their therapist and that their participation or not will not affect the therapy they will be offered or given. It will be made clear to all patients that they may decline to participate.

## **Confidentiality.**

For the purposes of this study anonymous patient data will be entered into a statistical spreadsheet. In order to be able to link the data from the self-report measures to other data all patients entered into the study will be given a code number that will be on the self report forms. A list of names and code numbers will be held separately until all the data has been entered into the spreadsheet at which point the list will be destroyed.

## **Outcomes.**

The study will generate substantial data, which will be of considerable academic interest, addressing a number of locally relevant, regional and national issues. The data will significantly inform the development of appropriate local services that are congruent with government policies. It will also lead to the development of a practical screening tool able to detect people at high risk of attrition from therapy.

Specific questions that may be answered include:

- What is the clinical and demographic nature of dropouts from the local service?
- Are there particular areas where dropouts live?
- How do patients access services and what are the barriers to care
- Can we assess/predict who will drop out of therapy
- Can we produce a reliable and valid instrument that will predict the likelihood of dropout?
- Can we describe alternative therapy delivery systems that will be more effective and accessible to currently disadvantaged groups?



## **Timetable**

Collection of data will occur over the 3 months June 2002 to August 2002.

## **Benefits**

The project will provide data to support alternative systems of therapy delivery and provide an instrument capable of selecting patients for different care-pathways. The implications of this are a significant reduction in attrition and an improved outcome for a significant number of patients. The questionnaire development and the outcome data will be of sufficient interest to be publishable in a peer review journal.

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Dear Colleague

**RE: PROBLEMS ATTENDING THERAPY QUESTIONNAIRE**

You will be aware of the ongoing research in the department regarding non-attendance and attrition from therapy.

Enclosed you will find a set of scales for YOUR PATIENT to fill in ON THE DAY OF THEIR ATTENDANCE and a set of instructions for you to follow.

The results of this questionnaire will remain confidential, and it should be stressed to the patient that the responses will not affect the therapy they are provided and that you will not be made aware of their responses to the questionnaires. The information gained will help us to improve the service we are able to offer.

At the end of the appointment, take your patient to the allocated room where they can fill in the questionnaires.

Thank You.

**Roland Self**  
**Consultant Clinical Psychologist**

## INSTRUCTIONS FOR QUESTIONNAIRE ADMINISTRATION

➤ Prior to your patients appointment:

- 1) Check BDI and SPACE\*\*– ensure completed and record the scores.
- 2) Complete reason for referral code.

➤ At the outset of appointment:

- 1) If not already completed, have patient complete BDI and SPACE.
- 2) Read out Standardised Verbatim Instructions to patient.

➤ At end of appointment:

- 1) Read out Standard Verbatim Instruction to patient.
- 2) Take patient to the designated room for completion of the questionnaire and ensure they are comfortable with the procedure. If you are in any doubt remind them that participation is voluntary and that they can put the uncompleted forms in the box if they want to.

***Remind them of where reception is if they have any difficulties.***



## VERBATIM INSTRUCTIONS FOR PATIENTS

\* **At the beginning of the therapy session:**

Before we begin this session I want to alert you to the fact that, at the end of the session, I will be asking you if you will fill out some questionnaires. It is part of a study looking at people's experience of attending therapy. In particular, it is looking at things which make it difficult for people to attend or to feel uncertain about attending therapy. You do not have to participate but this is important research which may improve the service for many people in the future so if possible please do so.

\* **At the end of the therapy session:**

That's the session ended for today. Before you go, you will remember that at the beginning of the session I told you that I would be asking you if you participate in a research study.

(Give the client the questionnaire pack with the explanatory letter on top. Allow them to read this and then go through the main points with them. Answer any questions they may have).

I will show you to a room where you can complete this in private and put it in the researcher's box.

Our Ref:

## CLIENT'S EXPERIENCE QUESTIONNAIRE

Most people attending therapy do not  
stop coming before they have received

I am interested to understand why  
service we offer. I am therefore  
completing this questionnaire to  
hold on them. The questionnaire asks  
about things that make a difference  
- addition I will use again if I can

### APPENDIX H - PATIENT QUESTIONNAIRE PACK

You do not have to participate in this  
improve services for many people  
decide not to participate. Please  
envelope provided. The

The information you provide will  
given to your therapist. It will  
overall picture of the department

If you do decide you would like to  
and seal them in the envelope provided  
complete

Thank you for your response

Richard Self  
Consultant Clinical Psychologist

PLEASE USE THIS ENVELOPE TO RETURN



**Our Ref:**

**CLIENT'S EXPERIENCE OF ATTENDING THERAPY RESEARCH.**

Most people attending therapy find it rewarding and worthwhile. However, some people stop coming before they have received any benefit.

I am interested in understanding why people stop attending so that we can improve the service we offer. I am therefore carrying out a research study that involves patients completing three questionnaires and giving me permission to use some of the data we hold on them. The questionnaires are about peoples' perceptions of their problems and about things that make it difficult, or make them uncertain about, attending therapy. In addition I will use age, gender, attendance record and district lived in from our records.

**You do not have to participate in this study but this is important research that may improve services for many people in the future so if possible please do so.** If you decide not to participate please draw a line through this page and place it in the envelope provided. This will not affect the therapy that you will be given.

**The information you provide will be confidential to the researcher, and will not be given to your therapist.** It will be grouped with other people's replies to give an overall picture of the difficulties experienced.

If you do decide you would like to help, please complete the attached questionnaires and seal them in the envelope provided. The questionnaire will take up to 10 minutes to complete.

**Thank you for your participation and time.**

**Roland Self  
Consultant Clinical Psychologist**

**PLEASE ENSURE THAT YOU COMPLETE ALL SHEETS**

**INFORMATION ABOUT YOU**

(Please tick all that apply)

**Main Employment**

- Housewife/home-carer
- Paid employment
- Unemployed
- Student
- Other

**Marital Status**

- Married/with partner
- Widow/widower
- Separated/divorced
- Single

**Living Arrangements**

- Live with spouse/partner (and children)
- Live with dependent children only
- Live with adult children
- Live with others (i.e. not partner or children)
- Live on own

**Education**

- School
- College
- Degree
- Above

**Occupation**

Please give the occupation of the highest earner in your household:

.....  
(If they are unemployed put most recent occupation and tick unemployed box)

Unemployed                       Never employed



This questionnaire is about things that might make it hard to attend therapy or to do the things the therapist wants you to do.

Please read the statements below in turn and decide how much each one applies to you. When you have decided put circle one of the numbers next to the statement that best describes your answer. Please answer the items in order and do not leave any out. If you are not certain just do your best and circle one of the numbers.

		Not at all	Only a little	Somewhat	A great deal
1.	Attending therapy appointments interferes with my ability to enjoy life.	0	1	2	3
2.	I have difficulty looking after my family properly and attending appointments.	0	1	2	3
3.	I dislike confronting painful emotions in therapy.	0	1	2	3
4.	Wherever I go I always I find it difficult to say an appointment time is not convenient.	0	1	2	3
5.	Someone close to me worries about what I say to the Therapist.	0	1	2	3
6.	It might cause problems if my employer finds out about me seeing a Therapist	0	1	2	3
7.	It is unpleasant being surrounded by lots of people in the waiting room.	0	1	2	3
8.	I have too many appointments with health professionals.	0	1	2	3
9.	I have too many other appointments to keep (e.g. DSS, Job Centre etc.).	0	1	2	3
10.	I often have difficulty remembering to keep appointments.	0	1	2	3
11.	I believe there is nothing I can do to make my life better no matter what I do.	0	1	2	3
12.	After therapy I will still be left with the real problem of not having enough money.	0	1	2	3
13.	After therapy I will still be left with the real problem of the neighbourhood in which I live.	0	1	2	3
14.	I am concerned about the gender of the person I am expected to see.	0	1	2	3
15.	I worry about what therapy is doing to me.	0	1	2	3
16.	I have problems with childcare (or care of a dependent adult) when trying to keep appointments.	0	1	2	3
17.	The department staff are unhelpful.	0	1	2	3
18.	I feel less able to help myself since being referred to see a therapist.	0	1	2	3
19.	I feel uncomfortable with the Therapist.	0	1	2	3
20.	It costs me money at work (or at home) when I attend appointments.	0	1	2	3
21.	I always feel humiliated when talking about myself.	0	1	2	3
22.	It is difficult to understand what the therapist is talking about.	0	1	2	3
23.	I don't really expect my life to improve very much even if therapy is successful.	0	1	2	3
24.	I worry about losing the benefits I receive if I complete therapy and improve.	0	1	2	3
25.	I worry family/friends will expect me to do too much if therapy is successful.	0	1	2	3



26.	Even if therapy were successful neighbours would always think of me as 'mental' if they knew I saw a therapist.	0	1	2	3
27.	I have problems with transport when getting to appointments (e.g. cost, hassles, etc.).	0	1	2	3
28.	After therapy I will still be left with the real problem of having an awful job or of having to do awful things in order to get by.	0	1	2	3
29.	I dislike talking about embarrassing things to the therapist	0	1	2	3
30.	Therapy seems to go nowhere (e.g., it is too long and too uncertain, etc.).	0	1	2	3
31.	I worry about losing the financial support I get from family or friends if I improve as a result of therapy.	0	1	2	3
32.	Even if I improve, after therapy I will still have a boring life.	0	1	2	3
33.	My workmates/friends look down on people who go to see a therapist.	0	1	2	3
34.	I have so many things to do with the family or other people close to me that it is hard to find the time to do what the therapist wants me to do.	0	1	2	3
35.	I have problems taking time off work to attend appointments.	0	1	2	3
36.	Someone close to me resents me having someone else to talk to.	0	1	2	3
37.	I am concerned about what social services (or some other agency) will think if they find out that I have been referred to see a therapist.	0	1	2	3
38.	The therapist does not really understand my problems.	0	1	2	3
39.	Even if I improve with therapy, I can't see me ever being happy with the way I am.	0	1	2	3
40.	After therapy I will have more emotional problems in my close relationships than I have now.	0	1	2	3
41.	After therapy I will still be left with the real problem of poor housing.	0	1	2	3
42.	I feel ashamed of having to see a Therapist.	0	1	2	3
43.	If I were to bump into a neighbour in the department /clinic it could cause problems for me in my neighbourhood.	0	1	2	3
44.	I have doubts about the Therapist's ability to help me.	0	1	2	3
45.	I need assistance to attend appointments but family or friends do not have the time to help.	0	1	2	3
46.	I have problems with reading and writing.	0	1	2	3
47.	Attending therapy appointments gets in the way of me doing the things that I want to do.	0	1	2	3
48.	I worry that I will be expected to stop my medication if I improve.	0	1	2	3
49.	People around where I live think that therapy is a waste of time.	0	1	2	3
50.	Even if I improve with therapy not being as clever or skillful as other people will always cause me problems in my life.	0	1	2	3
51.	Someone close to me doesn't believe that therapy can help.	0	1	2	3
52.	The appointment times are not convenient	0	1	2	3



53.	If I get better this will cause financial problems for someone close to me.	0	1	2	3
54.	Often I am not well enough to attend my appointment.	0	1	2	3
55.	I worry about what will happen to me if I get better.	0	1	2	3
56.	My family/friends do not support me attending because it interferes with their needs.	0	1	2	3
57.	When the weather is bad I find it hard to attend appointments.	0	1	2	3
58.	I want to feel good about myself but this is difficult if I am attending therapy.	0	1	2	3
59.	I like enjoying the company of people I know but this is difficult if I am attending therapy.	0	1	2	3
60.	Someone close is critical of me attending therapy because they think it looks bad to other people.	0	1	2	3
61.	After therapy I will still be left with the real problem of not having a good close relationship.	0	1	2	3
62.	I can't see me putting up with the lack of consideration shown by the service for very long.	0	1	2	3
63.	Someone close to me expects too much from me emotionally at this time.	0	1	2	3
64.	People I socialize with expect too much from me at this time.	0	1	2	3
65.	Someone close to me doesn't believe that I am capable of changing myself.	0	1	2	3
66.	It is difficult to find the space or privacy where I live to do the things my therapist wants me to do.	0	1	2	3
67.	Even if I improve with therapy I will still be left with the real problem of the state of my body.	0	1	2	3
68.	Someone close to me expects too much from me financially at this time.	0	1	2	3
69.	The type of therapy / treatment on offer is not appropriate for my problems.	0	1	2	3
70.	If I get better this will cause practical problems for someone close to me	0	1	2	3
71.	The therapist does not really believe that my life will improve as a result of therapy.	0	1	2	3
72.	The therapist does not really believe that I am capable of changing myself.	0	1	2	3

